AMBER CHRISTENSON, ALLEN ROBISH VS. SOUTH DAKOTA PUBLIC UTILITIES COMMISSION,
29615 19CIV20-000027

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Chronological Index

File Date	Document Name	Page #
05/01/2020	NOTICE OF ADMIN APPEAL AND CERTIFICATE OF SERVICE: NOTICE OF APPEAL and CERTIFICATE of SERVICE to all parties	1
05/04/2020	NOTICE OF APPEARANCE: NOTICE OF APPEARANCE	4
05/05/2020	AMENDED: CERTIFICATE OF SERVICE and EXHIBIT A Attached	5
05/05/2020	NOTICE OF APPEARANCE	9
05/11/2020	MOTION FOR CHANGE OF VENUE: MOTION FOR CHANGE OF VENUE	10
05/11/2020	CERTIFICATE OF SERVICE: CERTIFICATE OF SERVICE	12
05/11/2020	STATEMENT: OF ISSUES to CIRCUIT COURT and CERTIFICATE of SERVICE (APPELLANTS)	13
05/12/2020	NOTICE OF APPEARANCE AND CERTIFICATE OF SERVICE: Schumacher	16
05/12/2020	NOTICE OF APPEARANCE AND CERTIFICATE OF SERVICE: Van Beek Palmer	18
05/12/2020	NOTICE OF APPEARANCE AND CERTIFICATE OF SERVICE: Murphy	20
05/18/2020	CERTIFICATE OF SERVICE	22
05/19/2020	ORDER FOR CHANGE OF VENUE	23
05/28/2020	LETTER: FROM ADMINISTRATIVE AGENCY TO CLERK	24
05/28/2020	INDEX: - CHRONOLOGICAL	26
05/28/2020	INDEX: - ALPHABETICAL	48
05/28/2020	CERTIFICATE: CERTIFICATION OF RECORD	68
05/28/2020	CERTIFICATE OF SERVICE	69
05/28/2020	ADMINISTRATIVE RECORD -- 29615.R02.pdf --	71
05/28/2020	ADMINISTRATIVE RECORD (CONFIDENTIAL)	1
05/28/2020	ADMINISTRATIVE RECORD	5
05/28/2020	ADMINISTRATIVE RECORD (CONFIDENTIAL)	83
05/28/2020	ADMINISTRATIVE RECORD	84
05/28/2020	ADMINISTRATIVE RECORD (CONFIDENTIAL)	93
05/28/2020	ADMINISTRATIVE RECORD	94
05/28/2020	ADMINISTRATIVE RECORD (CONFIDENTIAL)	97
05/28/2020	ADMINISTRATIVE RECORD	99
05/28/2020	ADMINISTRATIVE RECORD (CONFIDENTIAL)	101
05/28/2020	ADMINISTRATIVE RECORD	102
05/28/2020	ADMINISTRATIVE RECORD (CONFIDENTIAL)	108
05/28/2020	ADMINISTRATIVE RECORD	110
05/28/2020	ADMINISTRATIVE RECORD (CONFIDENTIAL)	130
05/28/2020	ADMINISTRATIVE RECORD	147
05/28/2020	ADMINISTRATIVE RECORD (CONFIDENTIAL)	154

05/28/2020 ADMINISTRATIVE RECORD 156
05/28/2020 ADMINISTRATIVE RECORD (CONFIDENTIAL) 170
05/28/2020 ADMINISTRATIVE RECORD 178
05/28/2020 ADMINISTRATIVE RECORD (CONFIDENTIAL) 192
05/28/2020 ADMINISTRATIVE RECORD 194
05/28/2020 ADMINISTRATIVE RECORD (CONFIDENTIAL) 214
05/28/2020 ADMINISTRATIVE RECORD 215
05/28/2020 ADMINISTRATIVE RECORD (CONFIDENTIAL) 216
05/28/2020 ADMINISTRATIVE RECORD 217
05/28/2020 ADMINISTRATIVE RECORD (CONFIDENTIAL) 219
05/28/2020 ADMINISTRATIVE RECORD 221
05/28/2020 ADMINISTRATIVE RECORD (CONFIDENTIAL) 230
05/28/2020 ADMINISTRATIVE RECORD 231
05/28/2020 ADMINISTRATIVE RECORD (CONFIDENTIAL) 232
05/28/2020 ADMINISTRATIVE RECORD 233
05/28/2020 ADMINISTRATIVE RECORD (CONFIDENTIAL) 307
05/28/2020 ADMINISTRATIVE RECORD 350
05/28/2020 ADMINISTRATIVE RECORD (CONFIDENTIAL) 489
05/28/2020 ADMINISTRATIVE RECORD 516
05/28/2020 ADMINISTRATIVE RECORD (CONFIDENTIAL) 573
05/28/2020 ADMINISTRATIVE RECORD 578
05/28/2020 ADMINISTRATIVE RECORD (CONFIDENTIAL) 802
05/28/2020 ADMINISTRATIVE RECORD 875
05/28/2020 ADMINISTRATIVE RECORD (CONFIDENTIAL) 884
05/28/2020 ADMINISTRATIVE RECORD 888
-- 29615.R03.pdf --
05/28/2020 ADMINISTRATIVE RECORD (CONFIDENTIAL) 1
05/28/2020 ADMINISTRATIVE RECORD 512
-- 29615.R04.pdf --
05/28/2020 ADMINISTRATIVE RECORD (CONFIDENTIAL) 1
05/28/2020 ADMINISTRATIVE RECORD 660
-- 29615.R05.pdf --
05/28/2020 ADMINISTRATIVE RECORD (CONFIDENTIAL) 1
05/28/2020 ADMINISTRATIVE RECORD 3
-- 29615.R06.pdf --
05/28/2020 ADMINISTRATIVE RECORD (CONFIDENTIAL) 1
05/28/2020 ADMINISTRATIVE RECORD 650
-- 29615.R07.pdf --
05/28/2020 ADMINISTRATIVE RECORD (CONFIDENTIAL) 1
05/28/2020 ADMINISTRATIVE RECORD 3
05/28/2020 ADMINISTRATIVE RECORD (CONFIDENTIAL) 288
05/28/2020 ADMINISTRATIVE RECORD 355
05/28/2020 ADMINISTRATIVE RECORD (CONFIDENTIAL) 360
05/28/2020 ADMINISTRATIVE RECORD 393
05/28/2020 ADMINISTRATIVE RECORD: TRANSCRIPTS 432
08/10/2020 BRIEF: APPELLANTS' CHRISTENSON and ROBISH'S BRIEF TO CIRCUIT COURT and APPENDIX-EXHIBITS and CERTIFICATE of SERVICE 1385
10/08/2020 BRIEF: APPELLANTS CHRISTENSON and ROBISH'S REPLY BRIEF and EXHIBIT and CERTIFICATE of SERVICE 1413
02/26/2021 MEMORANDUM DECISION 1421

03/12/2021	ORDER	1439
03/15/2021	NOTICE OF ENTRY OF ORDER AND CERTIFICATE OF SERVICE	1459
04/12/2021	NOTICE OF APPEAL AND CERTIFICATE OF SERVICE: APPELLANTS' NOTICE OF APPEAL and CERTIFICATE of SERVICE	1482
04/12/2021	APPELLANT'S DOCKETING STATEMENT	1484
04/12/2021	ORDER FOR TRANSCRIPT-COPY: APPELLANTS' ORDER for (REMAINING) PARTIAL TRANSCRIPT	1515
04/13/2021	LETTER: TO SUPREME COURT	1516
04/14/2021	ORDER: FOR ANY REMAINING TRANSCRIPT(S) OF PROCEEDINGS	1517

Total Pages: 15478

Alphabetical Index

File Date	Document Name	Page #
05/28/2020	ADMINISTRATIVE RECORD	71
05/28/2020	ADMINISTRATIVE RECORD	5
05/28/2020	ADMINISTRATIVE RECORD	84
05/28/2020	ADMINISTRATIVE RECORD	94
05/28/2020	ADMINISTRATIVE RECORD	99
05/28/2020	ADMINISTRATIVE RECORD	102
05/28/2020	ADMINISTRATIVE RECORD	110
05/28/2020	ADMINISTRATIVE RECORD	147
05/28/2020	ADMINISTRATIVE RECORD	156
05/28/2020	ADMINISTRATIVE RECORD	178
05/28/2020	ADMINISTRATIVE RECORD	194
05/28/2020	ADMINISTRATIVE RECORD	215
05/28/2020	ADMINISTRATIVE RECORD	217
05/28/2020	ADMINISTRATIVE RECORD	221
05/28/2020	ADMINISTRATIVE RECORD	231
05/28/2020	ADMINISTRATIVE RECORD	233
05/28/2020	ADMINISTRATIVE RECORD	350
05/28/2020	ADMINISTRATIVE RECORD	516
05/28/2020	ADMINISTRATIVE RECORD	578
05/28/2020	ADMINISTRATIVE RECORD	875
05/28/2020	ADMINISTRATIVE RECORD	888
05/28/2020	ADMINISTRATIVE RECORD	512
05/28/2020	ADMINISTRATIVE RECORD	660
05/28/2020	ADMINISTRATIVE RECORD	3
05/28/2020	ADMINISTRATIVE RECORD	650
05/28/2020	ADMINISTRATIVE RECORD	3
05/28/2020	ADMINISTRATIVE RECORD	355
05/28/2020	ADMINISTRATIVE RECORD	393
05/28/2020	ADMINISTRATIVE RECORD: TRANSCRIPTS	432
05/28/2020	ADMINISTRATIVE RECORD (CONFIDENTIAL)	1
05/28/2020	ADMINISTRATIVE RECORD (CONFIDENTIAL)	83
05/28/2020	ADMINISTRATIVE RECORD (CONFIDENTIAL)	93
05/28/2020	ADMINISTRATIVE RECORD (CONFIDENTIAL)	97
05/28/2020	ADMINISTRATIVE RECORD (CONFIDENTIAL)	101
05/28/2020	ADMINISTRATIVE RECORD (CONFIDENTIAL)	108
05/28/2020	ADMINISTRATIVE RECORD (CONFIDENTIAL)	130
05/28/2020	ADMINISTRATIVE RECORD (CONFIDENTIAL)	154
05/28/2020	ADMINISTRATIVE RECORD (CONFIDENTIAL)	170
05/28/2020	ADMINISTRATIVE RECORD (CONFIDENTIAL)	192
05/28/2020	ADMINISTRATIVE RECORD (CONFIDENTIAL)	214
05/28/2020	ADMINISTRATIVE RECORD (CONFIDENTIAL)	216
05/28/2020	ADMINISTRATIVE RECORD (CONFIDENTIAL)	219
05/28/2020	ADMINISTRATIVE RECORD (CONFIDENTIAL)	230
05/28/2020	ADMINISTRATIVE RECORD (CONFIDENTIAL)	232
05/28/2020	ADMINISTRATIVE RECORD (CONFIDENTIAL)	307
05/28/2020	ADMINISTRATIVE RECORD (CONFIDENTIAL)	489

05/28/2020	ADMINISTRATIVE RECORD (CONFIDENTIAL)	573
05/28/2020	ADMINISTRATIVE RECORD (CONFIDENTIAL)	802
05/28/2020	ADMINISTRATIVE RECORD (CONFIDENTIAL)	884
05/28/2020	ADMINISTRATIVE RECORD (CONFIDENTIAL)	1
05/28/2020	ADMINISTRATIVE RECORD (CONFIDENTIAL)	1
05/28/2020	ADMINISTRATIVE RECORD (CONFIDENTIAL)	1
05/28/2020	ADMINISTRATIVE RECORD (CONFIDENTIAL)	1
05/28/2020	ADMINISTRATIVE RECORD (CONFIDENTIAL)	1
05/28/2020	ADMINISTRATIVE RECORD (CONFIDENTIAL)	288
05/28/2020	ADMINISTRATIVE RECORD (CONFIDENTIAL)	360
05/05/2020	AMENDED: CERTIFICATE OF SERVICE and EXHIBIT A Attached	5
04/12/2021	APPELLANT'S DOCKETING STATEMENT	1484
08/10/2020	BRIEF: APPELLANTS' CHRISTENSON and ROBISH'S BRIEF TO CIRCUIT COURT and APPENDIX-EXHIBITS and CERTIFICATE of SERVICE	1385
10/08/2020	BRIEF: APPELLANTS CHRISTENSON and ROBISH'S REPLY BRIEF and EXHIBIT and CERTIFICATE of SERVICE	1413
05/28/2020	CERTIFICATE: CERTIFICATION OF RECORD	68
05/11/2020	CERTIFICATE OF SERVICE: CERTIFICATE OF SERVICE	12
05/18/2020	CERTIFICATE OF SERVICE	22
05/28/2020	CERTIFICATE OF SERVICE	69
05/28/2020	INDEX: - CHRONOLOGICAL	26
05/28/2020	INDEX: - ALPHABETICAL	48
04/13/2021	LETTER: TO SUPREME COURT	1516
05/28/2020	LETTER: FROM ADMINISTRATIVE AGENCY TO CLERK	24
02/26/2021	MEMORANDUM DECISION	1421
05/11/2020	MOTION FOR CHANGE OF VENUE: MOTION FOR CHANGE OF VENUE	10
05/01/2020	NOTICE OF ADMIN APPEAL AND CERTIFICATE OF SERVICE: NOTICE OF APPEAL and CERTIFICATE of SERVICE to all parties	1
04/12/2021	NOTICE OF APPEAL AND CERTIFICATE OF SERVICE: APPELLANTS' NOTICE OF APPEAL and CERTIFICATE of SERVICE	1482
05/04/2020	NOTICE OF APPEARANCE: NOTICE OF APPEARANCE	4
05/05/2020	NOTICE OF APPEARANCE	9
05/12/2020	NOTICE OF APPEARANCE AND CERTIFICATE OF SERVICE: Schumacher	16
05/12/2020	NOTICE OF APPEARANCE AND CERTIFICATE OF SERVICE: Van Beek Palmer	18
05/12/2020	NOTICE OF APPEARANCE AND CERTIFICATE OF SERVICE: Murphy	20
03/15/2021	NOTICE OF ENTRY OF ORDER AND CERTIFICATE OF SERVICE	1459
03/12/2021	ORDER	1439
04/14/2021	ORDER: FOR ANY REMAINING TRANSCRIPT(S) OF PROCEEDINGS.	1517
05/19/2020	ORDER FOR CHANGE OF VENUE	23
04/12/2021	ORDER FOR TRANSCRIPT-COPY: APPELLANTS' ORDER for (REMAINING) PARTIAL TRANSCRIPT	1515
05/11/2020	STATEMENT: OF ISSUES to CIRCUIT COURT and CERTIFICATE of SERVICE (APPELLANTS)	13

Total Pages: 15478

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February 27, 2020

Electronic Filing &
Scan to all Persons on PUC E-Service List per Certificate of Service

Patricia Van Gerpen, Executive Director
SOUTH DAKOTA PUBLIC UTILITIES COMMISSION
Pierre, South Dakota

Re: File 6184-004. • *In re Docket EL19-027, Crowned Ridge Wind II, LLC*
Codington, Grant & Deuel Counties

Dear Director Van Gerpen:

Included with this letter please find a certificate of service, along with *Post-Hearing Brief of Intervenors Garry Ehlebracht, et al.*, and Appendix A thereto.

Thank you.

Very truly yours,
ARVID J. SWANSON P.C.

A.J. Swanson

c: All persons listed in the current Service List, as reflected in the Certificate of Service submitted herewith, including counsel for Applicant:

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Garry Ehlebracht, *et al.*

BEFORE THE PUBLIC UTILITIES COMMISSION
STATE OF SOUTH DAKOTA

In the Matter of the Application by CROWNED RIDGE WIND II, LLC *for a Permit of a Wind Energy Facility in Deuel, Grant and Codington Counties*	))))	Docket EL19-027

POST HEARING BRIEF OF INTERVENORS
GARRY EHLEBRACHT, ET AL.

I. Introduction

Hearing having been held before the Commission on February 4-6, 2020, this post-hearing brief is submitted on behalf of Intervenors Garry Ehlebracht, and several others, all residing in the immediate area of Goodwin (Goodwin Township), Deuel County, South Dakota. These Intervenors include Steven and Mary Greber, Richard and Amy Rall, Laretta Kranz, and Garry Ehlebracht. Collectively, the interests of these Intervenors are reflected in Exhibits I-1 to I-6, inclusive; these parties will be generally referenced herein by their last names. Each is also a "Non-Participant" in this project.

Crowned Ridge Wind II, LLC (Applicant or sometimes, CRW) proposes a 300.6 MW wind farm, at a development cost of some $425 million and consisting of about 132 wind turbine placements across nearly 61,000 acres of land in three counties, currently arrayed as shown in Exhibit A-28. The project will deploy GE 2.3 MW turbines, with rotors with a 381 foot diameter, mounted at 295 feet (the highest point thus being a few feet shy of 500 feet, or approximately 485 feet by some calculations, a measurement having relevance, *inter alia*, for application of the Deuel County Zoning Ordinance). The wind farm is said to be, at the time of readiness for operation, subject to a contract of sale to Northern States Power, a subsidiary of Xcel Energy (NYSE: XEL).

In September 2019, Applicant advised that the project would consist of a 200 MW array, and a subsequent potential array of 100 MW. Greber and Rall, located northeast of Goodwin,

are affected primarily by the scope of the 200 MW segment, while Kranz and Ehlebracht, south of Goodwin, are primarily (but not exclusively) affected by the 100 MW phase.

The homes and properties of Intervenors have been established for many years, and are all regarded as "permitted uses" under the Deuel County Zoning Ordinance's Article XI. Provided there is a minimum lot size of three (3) acres,[1] "permitted uses" include single-family residences and farm dwellings. These Intervenors were *not* asked concerning their relative proximity to Applicant's planned wind farm, Applicant having been in full control of those details. These Intervenors played *no* role in the design of Applicant's wind farm, such being within the exclusive domain and province of Applicant, subject, of course, to whatever tweaks and adjustments this Commission may ultimately direct for the Permit now sought.

Staff's own expert, Mr. Hessler, describes the design of this wind farm as "aggressive." This label is understood to mean that while the design may comply with "regulatory limits," it otherwise reflects an attempt to place too many turbines in a relatively confined area, and as close as possible to Non-Participants. Applicant proposes to build a considerable number of 485 foot wind turbines in this area, so that, when and as the wind blows, a considerable volume and quantity of "Effects" (so named, in part, based on Section 5.2 of the Wind Lease & Easement Agreement, Exhibit I-2) will be permanently cast down, upon, around, and into the homes and properties of each of the Intervenors. Such is the fruit of an "aggressive design."

Intervenors have appeared in this proceeding (as shown also in Exhibit I-3, Application for Party Status, filed August 6, 2019) to especially assert that, as fee owners, these Intervenors did not agree to the placement of servitudes or burdens upon their lands for the benefit of the wind farm. Additionally, Deuel County, in the purported exercise of the State's delegated zoning power, even if acting to the same ends as this Commission, has *no* legal authority to

[1] Section 1101.04, Deuel County Zoning Ordinance; this ordinance is not of record before the PUC, but,

permit or license this Applicant so as to impose a burden upon Intervenors, or to issue a permit then becoming a *de facto* easement for the casting of such "Effects." This "easement" – now represented by licensure - could not heretofore be obtained, in the case of Intervenor Kranz, through the exchange of mere money for privity of contract.

The notational use of "regulatory limits," within the testimony of Witness Hessler, is also a key underpinning to this brief. Rather than design a wind farm that has wind turbines, constructed in and among "Participants" (those having contracted and paid for the services of their lands, and their persons, assuming they live on the lands), further surrounded by a reasonable buffer area (also comprised of Participants, but those who have no wind turbines) that gives way to the homes and lands of Non-Participants, these areas seem fully blended. Often, as can be affirmed by the sound and shadow flicker studies of Witness Haley, the homes and properties of Non-Participants (those having given up no Effects Easement as to, or over, his or her lands and home) are slated to be even closer to one or more wind turbines, receiving a higher level of noise and a longer duration of shadow flicker, than are the homes of Participants, already in privity for those very purposes!

Thus, an aggressive wind farm design might serve (or meet) the so-called regulatory limits, but these questions must be answered: *First*, is the setting of "regulatory limits" on the home and lands of a Non-Participant within the Zoning Power as delegated to the County? *Second*, as an essential backstop to the County's purported exercise of that delegated power,[2] is this Commission likewise empowered to establish "regulatory limits" upon and as realized at the lands and homes of Non-Participants? (These limits seemingly sound in terms of an inquiry formed under SDCL 49-41B-22, "substantially impair the health, safety or welfare of the inhabitants" - but in reality, much as the County has done previously, the result is a stipulated

[2] Since this Commission's jurisdiction must be invoked also, given the project's size.

importation of the Commission's own undeclared, unwritten "regulatory limits," with Effects to such limits then forming a burden upon and over the properties of Non-Participants.[3]) These Intervenors wish to offer their own emphatic answers to the questions posed preceding: "No!"

This writing turns to an extended outline of the basis for these abrupt answers.

II. Effects, Easements & Confidential Conundrums

The Legislature has determined, *inter alia*, that energy development in the state "significantly affects the welfare of the population." By claiming permit authority, the state is to ensure the facilities are orderly and timely constructed; and also that the "location, construction and operation of facilities will produce minimal adverse effects . . . upon the citizens of this state." (SDCL 49-41B-1) The Legislature has delegated *that* authority to this Commission.

The statute has a presumptive air about it; there is no specific public interest test that must be met by an application for a facility siting permit, as existed in the days of intrastate trucking regulation.[4] Rather, in reading this law, the reader can generally understand "this thing is going to happen, unless . . ." What is the specific "unless" in this case? It is the burden placed on the applicant under SDCL 49-41B-22 – the statute outlines a series of tests, all but one of which is stated (as summarized following) in the negative:

(1) The facility must comply with applicable laws and rules;

(2) The facility will *not* pose a risk of serious injury to the environment;

(3) The facility will *not* substantially impair health, safety or welfare of neighbors;

(4) The facility will *not* unduly interfere with orderly development.[5]

---

[3] Related questions include – do sufficient standards accompany the legislature's delegation of power, and has the Commission correctly deployed the power, pursuing case-by-case determinations of allowable Effects?

[4] Such as "public convenience and necessity," the applicant's standard for a common carrier certificate.

[5] This subdivision is satisfied if applicant holds a CUP, fashioned by local units with Zoning Power.

Since becoming involved in these "facility siting permit" controversies, the common expression conveyed to this writer is on the order of "you're barking up the wrong tree." The speaker usually refines that exclamation, adding this – "this Commission has *no jurisdiction* over land use or property rights matters." On the face of things, that seems to be true, sort of.

In fact, it also appears to this writer the Commission's staff – at least until recent events – has taken no interest in the contents of Applicant's wind lease or the terms of easements. This "wind lease has no bearing on our jurisdiction" position is remarkably like that of Deuel County's Board of Adjustment during the brief course of quickly approving the special exception permit (conditional use permit) for this Applicant in June 2018.[6]

The Commissioners may recall when Intervenors first attempted to interject – *in this docket* - the actual text of a Wind Farm Lease & Easement. This started with the Application for Party Status ("AFPS"), filed August 5, 2019 (corrected August 6, 2019), a filing that is also now part of the evidentiary record, Exhibit I-3.

This filing referenced the background of a certain Wind Farm Lease and Easement Agreement, as an agent[7] had provided to Intervenor Kranz, who, in turn, provided it to Garry Ehlebracht. While the "Lease & Easement" itself purports to be a confidential document (Sect. 17, at p. 16, Exh. 1-2), the AFPS proceeded to quote from Section 5.2 and 11.10 therein, thusly:

> **5.2 Effects Easement**. Owner grants to Operator [Crowned Ridge Wind Energy Center, LLC] a non-exclusive easement for audio, visual, view, light, flicker, noise, shadow, vibration, air turbulence, wake, electromagnetic, electrical and radio frequency interference, and any other effects attributable to the Wind Farm or activity located on the Owner's Property or on adjacent properties over and across the Owner's Property ("**Effects Easement**").
>
> **11.10 Remediation of Glare and Shadow Flicker**. Operator [Crowned Ridge Wind Energy Center, LLC] agrees that should Owner experience problems with

[6] The zoning ordinance requires easements be filed with the Board; in fact, Applicant filed dozens if not hundreds of "memorandums," none of which contained the actual text of any easement or lease.
[7] In the name of Crowned Ridge Wind Energy Center, LLC; counsel Schumacher's letter of August 6, 2019 claims the benefit of this document on behalf of Applicant.

> glare or shadow flicker in Owner's house associated with the presence of the Turbines on Owner's Property or adjacent properties, Operator [Crowned Ridge Wind Energy Center, LLC] will promptly investigate the nature and extent of the problem and the best methods of correcting any problems found to exist. Operator [Crowned Ridge Wind Energy Center, LLC] at its expense, with agreement of Owner, will then promptly undertake measures such as tree planting or installation of awnings necessary to mitigate the offending glare or shadow.

This filing brought a letter protest from Applicant's counsel, demanding the AFPS be redacted at pages 3 to 6, thus deleting the background discussion of this Lease & Easement, as well as the sections quoted, as immediately preceding. Presently, the Commission requested briefs on the issue.

In the process, Applicant retreated from the claim that Section 5.2 (Effects Easement) is entitled to confidential treatment, but yet maintained that Section 11.10 should be protected. These Intervenors maintained the two quoted sections are actually related, and that neither should be kept confidential. By order entered September 20, 2019, the Commission overruled Applicant's redaction request as to the AFPS.

Why does this history bear repeating here? Because it is reflective of a commercial business practice, where Applicant sews up compensated contractual relations with those who (as Participants) will also host wind turbines, while holding evident disdain for the property and "enjoyment of life" rights of those unlucky to be Non-Participants (unwilling neighbors to the willing Participants). Even in that relationship of privity, moreover, Applicant hedges the bet. Having one's farm host a wind turbine (or several), obviously, results in "effects" to the Participant, in the same sense as referenced in Section 5.2. Whether it is the wind turbines on Owner's property – or those on neighboring properties – that prove to be the source of these "effects," the Lease & Agreement has it covered, both ways. The instrument is an easement,

commonly defined as a nonpossessory right to enter and use land of another, and obligating Owner not to interfere with the uses authorized by the easement.[8]

In making the identical use of a Non-Participant's (neighbor's) property, however, Applicant takes a dramatically different tack: while Witness Wilhelm offered some discussion of a "participation agreement" with Non-Participants, including a Section 5.2 "Effects Easement," apparently there are no such agreements now in play, or in force, or contemplated.[9] *If* either "Shadow Flicker," or "noise"[10] is *such an experience* that, as part of Applicant's standard fare, an easement is thought advisable, how is it this *same experience* requires *no such easement*, when the recipient[11] is a Non-Participant? This sharp contrast in dealings seems, well, duplicitous. If one nonpossessory use by Applicant requires an easement (without regard to whether the use is compliant with the so-called German rule, discussed *infra*), then does not the other likewise require one?

What might possibly warrant this difference, other than to observe that Applicant regards the nonpossessory use of a Participant's land (and home, if he or she actually lives there) as covered (authorized) by the Effects Easement? As to the Non-Participant's land (and home – as *each* of these Intervenors *actually live* there), on the other hand, it seems clear the operative authority (or right) rests on two related permits: (1) the Special Exception Permit (CUP) issued by the Deuel County Board of Adjustment, followed by (2) the upcoming Facility Siting Permit to be issued by this Commission. Staff and others may object to this claim, *but please – continue reading and hear us out!*

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[8] Restatement (Third) of Property: Servitudes § 1.2(1) (1998).
[9] One such item is used in Deuel, as recently disclosed; see Exhibit I-8, "Participation Agreement."
[10] Section 5.2 uses "noise," not "sound."
[11] Commonly a "receptor" with a coded nomenclature, establishing witness Haley's predicted duration. Notably, the intensity of noise or duration of flicker is *longer* for many Non-Participants than for Participants offering up an "Effects Easement" for such express purposes!

The Deuel County Zoning Ordinance ("DCZO") – adopted in a purported exercise of the delegated Zoning Power – allows the visitation of certain identified "wind farm effects" upon receptors.[12] The Special Exception Permit ("SEP"), issued October 22, 2018, is actually a nine-page document, while the representation submitted by Applicant here, as Exhibit A1-K, is but one page, noted as Special Exception Permit Number 18-102. (Deuel County's full permit is part of the administrative record filed with the Circuit Court, Third Judicial Circuit, by the issuing Board of Adjustment (noted therein as "Exhibit G"), in the pending writ of certiorari matter docketed as 19CIV18-000061, *Ehlebracht, et al. v. Deuel County Planning Commission, et al.*).

The SEP imposes *no* specific, or discernible limits on Applicant as to Shadow Flicker or noise (or other Effects) in relationship to Intervenors in their involuntary role as "receptors." By its own terms, the SEP has no effect until this Commission also issues a permit. The document does make several oblique references to the DCZO and Section 1215. Further, the Board's order provides for no post-construction study or testing to confirm that the wind farm, in practice, is the equal of the DCZO's permitted levels of Effects.

Staff witness Kearney sponsored Exhibit S1, with annexed Exhibits DK-1 through DK-5, as well as Exhibit S7, "Proposed Permit Conditions." Considering the last (for now), this is the document that Staff has fashioned in consultation with Applicant to establish, *inter alia*, what will be, as a consequence of this Permit, the specific, permitted intrusions upon the lands, and into the homes, of Non-Participants. First, in ¶ 26 of Exhibit S7 (in pertinent part):

> The Crowned Ridge Wind II Project (CRW II), exclusive of all unrelated background noise except for that associated with the pre-existing Crowned Ridge Wind I Project (CRW I), shall not generate a sound pressure level (10-minute equivalent continuous sound level Leq) of more than 45 dBA as measured within

[12] Or neighbors, to the tune of 45 dBA at Non-Participant residences, and up to 30 hours annually of "Shadow Flicker" at existing residences. Such limits respect no property lines, serve also as infringements on property rights, as no limit pertains until the home, and even then, the Effects invade.

> 25 feet of any non-participating residence unless the owner of the residence has signed a waiver . . . The Project Owner shall, upon Commission formal request, conduct field surveys and provide monitoring data verifying compliance with specified noise level limits. If the measured wind turbine noise level exceeds a limit set forth above, then the Project Owner shall act in accordance with prudent operating practice to rectify the situation. . . .

Second, ¶ 35 then permits:

> Shadow flicker at residences shall not exceed 30 hours per year unless the owner of the residence has signed a waiver. Prior to construction, Applicant shall obtain and file with the Commission a waiver for any occupied structure which will experience more than thirty hours of shadow flicker per year. If no waiver is obtained, Applicant shall file a mitigation plan with the Commission prior to construction and obtain Commission approval of the mitigation plan.

In other provisions, the Proposed Permit Conditions require that Applicant, prior to construction, submit further analysis related to the specified conditions or limits, including sound levels and shadow flicker,[13] and further specifies the meaning of "residence" and the like, so as to include only those in existence on the date of this Commission's permit order (*Id.*, ¶ 39).

Consequently, because these Effects are allowed to spread upon and to invade well past the property lines of these Intervenors, these Proposed Permit Conditions effectively "freeze" or inhibit further development or improvement by the owners of property, including those ranked as "Permitted Uses" under DCZO. This invasion is noteworthy as a taking or destruction of property rights previously held by these Intervenors, accomplished with the State's encouragement of an "aggressive," large-scale $425 million wind project now literally (and legally) towering over these Intervenors, with an enjoyment of Intervenors' environs, normally associated only with the *ownership of property* or a *nonpossessory right of use (an easement)*.

By establishing specific intensity and duration limits for the Effects, measured at the point of the close (the home, as occupied by these Intervenors), this Commission is *directly* assisting Deuel County in a forced transfer (or taking) of property rights. These rights are taken

[13] Exh. S7, ¶ 43(b) and (c).

from Intervenors and conferred upon Applicant. With this approach, there simply is *no* need for an "Effects Easement" from any Non-Participants, one might conclude! Not so, we would argue, and what's more, counsel for Intervenors adds, without an Effects Easement, an invasive use of the homes and lands of Intervenors, as contemplated, cannot be approved in all due wisdom.

III. Delegation Without Apparent Standards

For several years, this Commission has applied noise and shadow flicker limits for Facility Siting Permits on an *ad hoc* (case-by-case) basis. Most of the final orders in those prior dockets are an extrapolation of the Proposed Permit Conditions in Exhibit S7 here, except for the final decision and order in Docket EL18-026, *Application of Prevailing Wind Park, LLC for a Permit . . . in Bon Homme County, Charles Mix County and Hutchinson County, South Dakota, for the Prevailing Wind Park Project*.

Under the proposed permit conditions in that specific docket, at ¶ 27:

> The Project, exclusive of all unrelated background noise, shall not generate a long-term sound pressure level (L_{10}), as measured over a period of at least two weeks, defined by Commission staff, that includes all integer wind speeds from cut in to full power, of more than 40 dBA within 25 feet of any non-participating residence unless the owner of the residence has signed a waiver, and 45 dBA of any participating residence unless the owner of the residence has signed a waiver.

As to shadow flicker, ¶ 28 provides that applicant shall:

> [E]nsure that shadow flicker does not exceed 15 hours per year with no more than 30 minutes per day at non-participating [residences] and participating [residences] that have not signed a waiver. Applicant shall also take steps to mitigate shadow flicker concerns at any residence that could experience shadow flicker levels above 15 hours with no more than 30 minutes per day.

There is quite a difference between what is *now* proposed for Applicant (because of being "aggressive," perhaps) in this docket, and that as was adopted for Docket EL18-026.

From questions posed in this case by one of the Commissioners to witness Dr. Ollson, the term "shadow flicker" is one of art. As typically used by Applicant and its array of experts, the term is *limited* to the flickering, rotating shadow that is appearing within an occupied dwelling,

having entered via windows or other openings. While the shadows emitted by the rotating blades will fall upon other open property or structures, in that context it is merely "shadow," not "shadow flicker."[14] When a regulatory limit is imposed, such only addresses the interior of a residence. "Shadow" emitted by wind turbines onto other surfaces is not limited.

The delegation of authority to an administrative agency must be accompanied by sufficient standards for the agency's guidance.[15] Authority is given to adopt certain rules (SDCL 49-41B-35). The Commission is to consider whether to issue a Facility Siting Permit – *if* the Applicant has carried the burden on establishing the several *negative* tests outlined in SDCL 49-41B-22. Certainly the level or intensity or duration of the "Effects" (as described in Applicant's Effects Easement) play a role here, but rather than adopt regulations for guidance, this Commission has deemed as controlling (on matters of "health, safety or welfare" – unofficially, at least[16]) the *very same regulations or regulatory limits* very recently adopted by several counties for standards within their respective Zoning Ordinances.[17]

This writer does not envy the task of this Commission: neither the Commissioners themselves, nor the Staff at hand, have apparent medical training or degrees, and the marshalling of evidence and expert opinions for the statute's negative tests is a formidable (and expensive) task. The state agency with *some* expertise in "health" is the South Dakota Department of Health; according to Exhibit DK-3, part of Exhibit S1, this agency, through its Secretary, takes no "formal position on the issue of wind turbines and human health." Pointing to studies of other state public health agencies, the exhibit's writer concludes "that there is insufficient evidence to

[14] Haley's narrative in Exhibit JH-S-2, at 3, states "flickering effect can also be experienced outdoors." Which is it?
[15] *Affiliated Distillers Brands Corp. v. Gillis*, 81 S.D. 44, 130 N.W.2d 597 (1964).
[16] On a case-by-case basis.
[17] Each county with legislative authority under the Zoning Power, writes a slightly different constraint; Deuel County limits Shadow Ficker to 30 hours, Codington County allows "exceedences" (a term used both by Applicant *and* a certain German source) *if* an easement permits it. Exhibit I-8 is duly noted.

establish a significant risk to human health," while further observing the most common complaints associated with wind turbines are of "[a]nnoyance and quality of life."[18] Further, the Secretary observes that these complaints "may be minimized by incorporating best practices into the planning guidelines."[19] What exactly comprises "best practices" is an open question, as the concept is not referenced in the Commission's regulations. However, it is assumed to signal the adoption, at the level of county zoning, of *some* Shadow Flicker limit, along with less generous (dangerous) noise limits, and an enlargement in the required setback distances between a wind turbine and an occupied dwelling.[20]

In prior contested cases over wind farm permitting, the Commission appears to have done pretty much the same as has been done here: Staff hires a panel of experts to study the Applicant's case (the cost being recouped by filing fee assessments to Applicant). The respective hired experts then struggle for a bit (and sometimes longer) over details of location and number of turbines, and by the time the case is being heard by the Commission, Staff and Applicant have ironed out most, if not all, of their differences in the form of a Proposed Permit Conditions document, much like Exhibit S7 here.

Witness Hessler, an acoustician with considerable experience in wind farm noise concerns (this witness having also concluded the design of this Applicant's wind farm is "aggressive") has written regarding his findings that wind farm noise levels at residences should be kept at 40 dBA and below; yet, in this case, Hessler is willing (but with some undertones of

[18] Annoyance, quality of life, and violations of property rights are chief concerns for these Intervenors.
[19] The Commission disallowed taking notice of the thick study by Tom Stanton, entitled "Put It There! – Wind Energy & Wind-Park Siting and Zoning Best Practices and Guidance for States," January 2012, NARUC Grants & Research, referenced as NARUC Best Practices report. This report has no influence on the Commission? Stanton's work cites to Hessler, at p. 27; 40 dBA being an "ideal design goal."
[20] We recall the "10/2008 SDPUC" model WES siting ordinance, formerly on the PUC's website, with 1,000 feet minimum distance to occupied homes, noise limits of 55 dBA (wow!), no mention of Shadow Flicker. Big changes for a dozen years; more yet to come? Who developed this model ordinance? Is the

reluctance) to approves a noise limit of 45 dBA. Still, the logic (and lawfulness, as an issue of guiding standards) of permitting one wind farm (not that long ago) – Prevailing Winds – to 40 dBA of noise, and 15 hours of Shadow Flicker, but having the discretion to notch the throttle back upwards here to 45 dBA and 30 hours of Shadow Flicker, escapes this writer. These differences are substantial, not mere trifles, and serve to reward the Applicant in bringing forward that "aggressive" design.

If risk of annoyance to Non-Participants (in their homes!) is some coin of the realm, then might this Commission also conclude the auditory systems and visual perceptions of those living in and around Crowned Ridge Wind II are *not* necessarily more resilient or better equipped to handle noise or shadow flicker than those who are neighbors to the Prevailing Winds project? Applying limits on a case-by-case basis, according to the expressed opinions of experts laying their views before the Commission, seemingly assures arbitrary outcomes. Assuming the terms of Exhibit S7 are adopted by the Commission, then this is an arbitrary outcome in that sense.

IV. The German Standards Are Now Here to Govern Us All?

In entering the final decision and order in Docket EL18-026, the Commission, at 22, ¶ 67, observed as follows for shadow flicker:

> The record demonstrates that 30 hour/year limit is merely an *industry standard.* Intervenors advocated that no shadow flicker should be allowed at non-participating residences. There is no federal standard for shadow flicker exposure from wind turbines, and state and local standards are uncommon. This standard is commonly applied in regulatory proceedings in other jurisdictions. *No jurisdictions prohibit shadow flicker at non-participating residences. For this Project, a 15 hour/year limit is an appropriate standard to protect the welfare of non-participants.* (*Emphasis supplied.*)

Much of what the Commission said in *Prevailing Winds* is actually true as to "shadow flicker." But that still doesn't make the conclusions right, as these Intervenors see the problem. Yes, state

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resource trusted? Stanton's seminal "Put It There!" cites to PUC's model ordinance pp. A-88, 89; *to be helpful*, Stanton's "South Dakota" pages are annexed as Appendix A.

standards *are* uncommon. For jurisdictions (like South Dakota) functioning without one, but yet willing to allow Shadow Flicker inside the homes of Non-Participants for any duration, several related questions should be answered: in allowing this use, are property rights violated? Further, if *some* use is allowed, subject to limits (say, 30 hours), what legal principle affords the right to establish the line of demarcation?[21] If the German standard is fine to be used here, then why use only one of the three tests independently applied (in Germany)? And, why re-fashion this standard, each time, on an *ad hoc* basis?

Starting with the "Effects Easement," keep in mind that Applicant – having full knowledge of shadow flicker, and likely knowing also the aversion to litigation over such matters the eventual buyer-operator of this wind farm will have - has deployed this instrument for purposes of dealing with the Participants. During the course of operation, if the Participant grows weary of Shadow Flicker, well, that's going to be just too bad, because Applicant and all those taking title from Applicant will hold an *easement* (one that has been bargained for) to continue to cast Shadow Flicker, to be limited only, we presume, by the applicable Zoning Ordinance and now the Facility Siting Permit.

What if a Non-Participant grows weary likewise? What is his or her remedy?[22] More to the point, what is the *source* of Applicant's claimed legal right (or property right, and ultimately, the purported right of Northern States Power likewise) to cast Shadow Flicker into and throughout the residence of these Intervenors?

According to the final decision and order in EL18-026, at note 177, a witness by the name of Aaron Anderson testified in *that* case that there is *no jurisdiction that prohibits shadow*

[21] Following "industry standards" or adopting whatever works in Germany doesn't suffice, in our view.
[22] It only seems right that there should be a remedy. But, what is it?

flicker at non-participating residences.[23] If Anderson is correct, then perhaps there is *no* remedy, and also *no* effective right by which to resist this *thing* that Applicant seeks to accomplish and to unleash on the Non-Participants and their homes. Before conceding the apparent point made by Anderson in *that* case, however, this writer feels the need to dig a bit deeper.[24]

How did we get to this point? In the writing of the 2008 model WES siting ordinance (the one that formerly appeared on this Commission's website[25]), shadow flicker is mentioned *nowhere*. Of course, in the few years since, wind turbines have since gotten bigger (taller) and noisier, too. According to witness Haley, the effects from shadow flicker are indistinguishable beyond 1,700 meters (about 5,577 feet).[26] Intervenors are about 2,000 to 2,200 feet from the nearest turbine, the most recent distance to the Greber residence now under 2,000 feet.[27]

Following on Anderson's testimony in EL18-026, a good point of beginning for *this* Commission is to ban, *by regulation*, all infliction of Shadow Flicker at and inside the homes of Non-Participants. No one contends this Commission *could not do so* in the interests of health, safety and welfare of the inhabitants.[28] Instead of doing so, what this Commission is effectively doing at this time is to backhandedly apply a standard that, yes, is clearly an "industry standard," one that the "industry" (and those who seek to support and protect it) have simply imported (part of it, anyway) from Germany.[29]

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[23] Sounds rather grim for Intervenors, each desiring to avoid Shadow Flicker at and in their homes. In citing this footnote, Intervenors are reporting, rather than affirming or accepting of that conclusion.
[24] If witness Anderson is right, Applicant's willful design of a wind farm with a promise of Shadow Flicker for *your home* should suffice as reason enough. The law affords no protection?
[25] The model ordinance, at n. 19, hasn't aged well after merely 12 years; here, the Commission is asked for a Permit to be set in concrete, literally, for an aggressive wind farm that might endure for 30 or 40 or more years. How might *this* decision age over *that* life span?
[26] Exhibit A1-J, p. 3-4.
[27] Exhibit A28, Receptor CR2-D221-1-NP, 1,995 feet; depends on the "evergreen receptor" location.
[28] A clear, proscriptive regulation better serves the public interest than an *ad hoc*, case-by-case order.
[29] South Dakota law has few if any ancedents from Germany; now seems a poor time to start, particularly if the actual provisions of South Dakota law are ignored in the importation process.

This "industry standard," over the course of relatively few years, has taken hold virtually everywhere in this country, except there is still *no such law or regulation* in South Dakota above the level of county zoning ordinances. Why did the industry borrow and promote this? Because it was convenient to do so, and one they can readily or easily live with, we suspect is the real answer. (Before moving beyond this argument, please recall that when it comes to *Participants*, Applicant employs an Effects Easement; when facing *Non-Participants*, however, Crowned Ridge merely provides the unhappy predicted details of the Effects upon unwitting neighbors, while asking for a Facility Siting Permit. When Shadow Flicker is a *burden* on real estate ownership, and it is clearly so, then an easement *is* appropriate to place that servitude upon the fee. When the burden or servitude is then authorized under the terms of a Permit issued by a governmental agency,[30] to be held by someone other than the fee owner, then a whole different legal concern arises. *Is not this Permit functioning also as an easement, giving license for use of the Non-Participant's property – a use that is also in derogation of, or a burden upon, fee ownership?* Again, we think this is entirely so. The reasons behind Applicant's efforts to keep the Effects Easement, and related provisions, from the public eye and public discussion are now obvious.)

Witness Dr. Ollson from Ontario province, appeared to sponsor Exhibit A12-16, entitled "Information on How to Identify and Assess Optical Immissions Wind turbines,"[31] a 30-page document (in both German and English) with an adoption date of March 13, 2002. This would certainly be one of the relevant documents for the origins of this *German rule* – now fast becoming the U.S. rule, as well as the *South Dakota rule*. While this Commission professes no

[30] "Yes - you may cast up to 30 hours of Shadow Flicker." (Unless you are near *Prevailing Winds* – those humans shall receive only 15 hours.) Fluidity in such standards means no standard at all. Each "standard" is yet an invasion of property rights – in South Dakota.

[31] My old, split-at-the-seams dictionary doesn't include "immissions." Others suggest an obsolete word from "British English," a meaning of "the act of inserting something." How true! Thus, we also object!

such rule (in writing), this agency is bent on making it so, *ad hoc*. Others appearing in this case as witnesses for Applicant have played some role in supporting or advancing the grip of this German rule, the willing importation of the rule into this country. I have in mind witness Lampeter, for example, whose work is cited in Stanton's NARUC Best Practices document, referenced in note 18, above; Lampeter's PowerPoint from 2011 cites an unknown German judge, whose ruling is variously quoted as "tolerable" or "acceptable" (in context of 30 hour/annual exposure to Shadow Flicker). Stanton's work for NARUC, we further note, carries the main title "Put it There," which raises for this writer images of someone throwing a dart at a distant map. It suggests that no matter where the dart lands in a penetrating fashion, there is or will be someway to make it work – *right there*.[32]

Exhibit A12-16 reflects the rules for Germany in siting *Windenergieanlagen* (also known as WEA). First, the exhibit outlines[33] the "worst case," which is the "Astronomically maximum possible shading time," where the "sun theoretically shines continuously in cloudless skies throughout the time between sunrise and sunset, the rotor surface stands perpendicular to solar radiation and the wind turbine is in operation." *Id.*, at 4.

Then, there is "actual shading time" – this is the "actual interaction time on periodic shadow design that is determined and enumerated on the spot." The "spot," we assume is a home, or perhaps one or more windows in a home. Then, "[i]f the irradiation intensity of direct sunlight on the level normal for incidence is more than 120 W/m^2, sunshine with shadow casting is to be assumed," with the "conversion to the illuminance [being] listed in the appendix." The

[32] Author Tom Stanton holds degrees, B.A. Communications, M.A. in Journalism and an M.S. in Public Administration; his work has no discernible analysis of constitutional limits for the Zoning Power. In "Finding the Right Words When Times Get Rough: How Commissions Can Address Difficult Communications" (July 2012), Stanton offers helpful suggestions on dealing with NIMBY, LULU, BANANA, CRAVE, and even NIMEY. *Suggestion:* if a catchy acronym for Non-Participants Unwelcoming of Shadow Flicker In Their Homes is required, let's use NPUSFITH.

[33] This writer reads English, not German; the English translation provided seems hard to follow.

object is to "safely avoid significant nuisance that can result from periodic light effects (optical immissions) by WEA." The "seriousness of harassment depends not only on its intensity, but also wo-temporally (sic) on the use of the area on which it affects, on the nature of the effects and the length of time of the effects."[34]

This German-English exhibit (sponsored by Witness Ollson) further states, in crystal clarity, this much (at 6):

> The actual immissions that occur at an immission location and which can only occur in certain weather conditions can be relevant. An influence by expected periodic shadow cast is considered not to be significantly harassing if the astronomically maximum possible duration of the coverage [8] [9] takes into account all WEA contributions at the respective emission site[35] in a reference height of 2 m above ground is no more than 30 hours per calendar year and beyond no more than 30 minutes per calendar day. In assessing the level of harassment, an average sensitive person was used as a benchmark.

Finally, Exhibit A12-16 (this is Applicant's own exhibit!) then asserts:

> If the values are exceeded for the astronomically maximum possible shade duration, technical measures to limit the operation of the WEA for time can be considered, among other things. An important technical measure, as the subject of conditions and orders, constitutes the installation of a deduction switching automatically, which uses radiation or lighting strength sensors to detect the specific meteorological shading situation and thus limits the local document duration. Since the value of 30 hours per calendar year was developed on the basis of astronomically possible shading, a corresponding value for defeat automobiles[36] is determined for the actual, real shadow duration, the meteorological shading duration. Based on [2], this figure is 8 hours per calendar year.

Getting a grasp of (and then retaining) all angles of South Dakota property law is a challenge, let alone what might pertain in Germany. (Counsel for Intervenors is unable to read a word of German, beyond "Achtung."[37]) As a general rule, Intervenors would propose this – the Commission should not simply assume the Zoning Power (or the Facility Siting Permit Power),

[34] Hence, the "Effects Easement," one can presume! Not certain this extended test has been imported.
[35] This site is, we presume, the "receptor."
[36] Yes, that's what it says; the interesting caveat being 8 hours per year. For Intervenors slated to receive more than 8 hours of Shadow Flicker annually, a full understanding of this proviso would be helpful.

as such exists in South Dakota, is fully amenable and sufficiently flexible to permit a deployment on South Dakota citizens of *whatever is claimed to work for the wind industry in Germany*.

The German rule, as stated in Applicant's exhibit, seemingly embraces three distinct measurements of time – (a) 30 hours per year for "astronomically maximum possible shade duration;" (b) 30 minutes per calendar day of "astronomically maximum possible shade duration;" and (c) 8 hours per calendar year for "actual, real shadow duration, the meteorological shading duration." When Stanton's work for NARUC[38] recommended the use of 30 hours year / 30 minutes per day as the Shadow Flicker control mechanism (with no reference to 8 hours), this was seemingly based on a study prepared for Massachusetts Department of Public Health in January 2012, authored by Ellenbogen, *et al*.[39]

The Ellenbogen work (and Dr. Ellenbogen himself), as cited by Stanton, then shows up before this Commission as Exhibit A11 in Docket EL18-053, *Deuel Harvest Wind Energy, LLC for Energy Facility Permit in Deuel County, South Dakota*. In a quick review of that exhibit, the testimony of Dr. Ellenbogen opines that "[a]nnoyance is not a health effect." Rather, "[a]nnoyance is a feeling – an emotional response – related to a stimulus."[40] So, this Commission can ignore annoyance, is the apparent teaching of Ellenbogen.

Dr. Ellenbogen did not include the full text of his January 2012 study during his appearance in Docket EL18-053. But, a Dr. Mark Roberts sponsored that study as an exhibit in several wind farm dockets before this Commission, including EL18-003, *Dakota Range I, LLC and Dakota Range II, LLC, Grant County and Codington County*. As to the duration of shadow flicker, Dr. Roberts sponsored Dr. Ellenbogen's study, as cited in the work of Stanton (and relied

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[37] Due to years of nightime study during the 1950's of "LIFE'S Picture History of World War II."
[38] The same NARUC report referenced in note 19, above.
[39] The very same study referenced by South Dakota's Secretary of Health, Exhibit DK-3.
[40] Somewhat like love, we suspect; this passage is from line 335-36 of Exhibit A11.

on also by the South Dakota Secretary of Health), which (as Exhibit 7 in Docket EL18-003) includes this statement (at p. 55 of 164):

> General consensus in Germany resulted in the guidance of 30 hours per year and 30 minutes per day (based on astronomical, clear sky calculations) as acceptable limits for shadow flicker from wind turbines (NRC, 2007). This is similar to the Denmark guidance of 10 hours per year based on actual conditions.[41]

Ellenbogen's study, as sponsored by Dr. Roberts in EL18-003, then also says this about shadow flicker (at p. 37):[42]

> It appears clear that shadow flicker can be a *significant annoyance or nuisance* to some individuals, particularly if they are wind project non-participants (people who do not benefit economically or receive electricity from the turbine) whose land abuts the property where the turbine is located. (*Emphasis supplied*.)

Dr. Ellenbogen's January 2011 study, as sponsored by Dr. Roberts, then further opines (at p. 58):

> Collectively, although shadow flicker can be a *considerable nuisance particularly as to wind turbine project non-participants*, the evidence suggests there is no risk of seizure from shadow flicker caused by wind turbines. In addition, there is limited evidence primarily from a German government-sponsored study (Pohl et al., 1999) that prolonged shadow flicker (more than 30 minutes) can result in transient stress-related effects on cognition (concentration, attention) and autonomic nervous system functioning (heart rate, blood pressure). There was insufficient documentation to evaluate other than anecdotal reports of additional health effects including migraines or nausea, dizziness or disorientation. There are documented mitigation methods for addressing shadow flicker from wind turbines and these methods are presented in Appendix B. (*Emphasis supplied*.)

A review of Dr. Ellenbogen's Appendix B provides details for predicting shadow flicker at a proposed turbine site, and includes the thought that turbines located within forestry will reduce nuisance from flicker (wind farms in forests?), but when in "other open land area such as farmland that [location] would be more susceptible to the annoyance of shadow flicker." The appendix further notes that:

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[41] Certainly a more understandable statement than the German-English translation in Exhibit A12-16. Denmark's 10 hour limit is quite close to the German limit of 8 hours. Why has the 8 hour limit not been adopted here?

> [S]everal states in the US have adopted the German model of 30 hours per year of allowed shadow flicker that was primarily based on the government-sponsored study summarized above. However, other states or localities including Hutchinson, Minnesota have enacted stricter guidelines including no shadow flicker to be allowed at an existing residential structure, and up to 30 hours per year of shadow flicker allowed on roadways or residentially zoned properties and a computer analysis is required for project approval (NEWEEP, 2011).[43]

Whether this result – *that is, the importation of German standards for wind farms in the United States* - is due to the work of Ellenbogen, or that of Stanton, or of Dr. Pohl, this much can be said in summary form: *First*, only *certain* German standards, *but not all of them*, have been imported, both the 30 minutes per day exposure to Shadow Flicker, and also the 8 hours per year limit, based on "actual, real shadow duration," being omitted from the Deuel County Zoning Ordinance.[44] *Second*, and just as importantly, not one of the authors writing about, nor one of the agencies deploying this German standard (which this Commission, in *Prevailing Winds*, correctly labels as an "industry standard"), address the question of whether a German-influenced cram-down of Shadow Flicker into the homes and onto the lands and lives of the Non-Participants is consistent with the *inherent, inchoate, and conferred property rights* of these unwilling wind farm neighbors – *here in South Dakota*.

That a foreign government would neglect *these issues* (again - how will this work in conjunction with South Dakota property law – and more importantly, why is only part of the German rule imported here?) is hardly surprising, as the focus was on their internal concerns. This Commission, on the other hand, should face these issues, and in this case, rather than merely continuing to assume, en route to concluding that Applicant meets the negative burdens

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[42] Intervenors request the Commission take judicial notice of testimony and exhibits in the referenced dockets, as is the prerogative of this agency.

[43] Code of Ordinances, § 154.027, City of Hutchinson, Minnesota, adopted 2007; this ordinance prohibits shadow flicker at existing residences, contrary to the Commission's finding in EL18-026, ¶ 26, apparently based on the testimony of one Aaron Anderson. Failing to ban *all shadow flicker intrusion* reflects a lack of political will, rather than lack of legal grounds. Non-Participants object to such intrusions, and use of German standards (or "industry standards") applied to their property rights.

of SDCL 49-41B-22 (health, safety or welfare of the inhabitants), that this Commission remains safe to follow the lead of Deuel County's Zoning Power claims, and thus is free to impose specific "Effects" burdens on the homes and lands of these Intervenors.

There is an important *third point* to be discussed, drawn from Ellenbogen and others. These writers note that Non-Participants are those most often afflicted by "annoyance," as if this is surprising or grounds on which the agency is right to be dismissive of such voices. The enjoyment of land and home is directly linked to the common law concept of the "close," whether a field or a home that is enclosed, even if that enclosure is invisible and nothing more than a property line. Any South Dakotan, having purchased and having either paid for – or in the process of paying for – the close is naturally resentful of an invasive use of the close by someone – anyone – not bargaining for the privilege of entrance and use. That "someone" is regarded in law much like a thief.

The close of these Intervenors is being dishonored by Applicant, and also by local and state governmental agencies issuing the necessary permits to Applicant. Germany's use of "an average sensitive person" is *not* a valid test as to property rights. An act is either trespassory or it is not – a trespass is neither excused by brevity nor is it actionable only when crossing a time threshold (such as 30 hours per year). The trespasser is afforded no defense by exclaiming and citing to Ellenbogen or other experts: "You're looking mighty annoyed because of my trespass; your look is unwarranted." (One may assume also the writer of Exhibit A12-16 had language skills, having also linked "harassment" with the "average sensitive person.") The right to defend and to exclude others from the unpermitted use of one's own property (and close) is the South Dakota standard.[45]

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[44] Apart from this Commission's *ad hoc* resort to the German 30-minutes daily limit in *Prevailing Winds*.
[45] SDCL 43-2-1, "ownership," 43-2-9, "right to hold," 43-13-4, "creation of servitudes," among others.

As of 2008, this Commission was in the *business* of recommending a specific "model WES siting ordinance" to South Dakota counties, as a function of the Zoning Power delegated to local governments. The Commission, no doubt, was trying to be helpful on a difficult issue.[46] By close reading, it seems that a large and growing number of counties then adopted something much like the recommendation, which is now being adjusted (wider separation distances to homes, and lowered permissible dBA sound pressures) and amended (adopting the German standard for Shadow Flicker). Staff's witness Kearney seemed (to this writer) rather disinterested in Stanton's seminal work from January 2012. Given the proximity in time of the PUC's model ordinance to Stanton's NARUC report, one has to assume the impact of the latter, upon the former, is well understood and appreciated, even if Kearney was then employed in the industry rather than on Commission Staff. Within a few years of Stanton's work, many counties in South Dakota – including Deuel – began to adjust their Zoning Ordinances, as well.[47]

There is now a entirely different approach to "Effects," both by this Commission and those exercising the Zoning Power at the local level. That said, this Commission is serving as a backstop to local level units, exercising (in the name of "health, safety [and] welfare") the similar (but not identical) limits on noise and Shadow Flicker, just as Stanton, Lampeter and others (most of whom are in the business of consulting for the design of wind farms) have urged, these limits (or the parts worthy of becoming the "industry standard") being lifted wholesale from German law. As noted earlier in this brief, the permit issued (or to become effective) at the level of Deuel County is based on the Zoning Ordinance (deploying a German standard); but the Special Exception Permit itself does not actually specify *what* those limits might be, either generally or at any specific point in or near the wind farm.

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[46] The issue is unresolved by ignoring Shadow Flicker, *and* in ignoring property rights, assuming the Non-Participant is powerless to exclude a trespass. The German rule perpetuates this assumption.
[47] And Crowned Ridge modified the Lease & Easement form by deleting Section 11.10.

Assuming Exhibit S7 is engrafted into this Commission's final decision and order, however, there will be a declaration of *limits* regarding both noise and Shadow Flicker – such declaration being then intended to govern this wind farm until it is no more.[48] By governing the wind farm, however, this Commission also governs the Non-Participants and their property rights, since these limits are established *at their homes*, not their property lines. Applicant is licensed to emit the Effects, even as Non-Participants are relegated to endure them. This might be how it works in Germany, but – *and this is a key point* - not in South Dakota.

Is the setting of such limits actually part of the Zoning Power in the first instance? Ultimately, this case – and others like it - may serve to challenge that point. The Commission's "Information Guide to Siting Energy Conversion Facilities" is noted, with the pledge that "this Commission strives to issue a reasoned decision and conditions where appropriate that uphold the law and discourage a potentially expensive and lengthy appeal process." Intervenors feel likewise. Permitting an aggressive design, sanctioning of "as designed" burdens upon the lands and homes of Non-Participants, is beyond the scope of this Commission's actual authority.

In the past several decades, the U.S. Supreme Court has decided a number of cases involving an overuse or misuse of the State's Zoning Power – or in the setting of land-use rights or development powers – in a manner violating the constitutional rights of the owners. Exploring those cases for the benefit of this Commission is actually beyond the scope of this brief[49] – however, these general rules are apparent: when the State's Zoning Power (or similar power) expects too much of an *applicant* for relief, it runs a risk of being declared unconstitutional, whether as a Taking, or as a violation of the Substantive Due Process rights of that owner, under the Fifth Amendment of the U.S. Constitution, as applied to the States via the

[48] Intervenors are concerned how well these limits will age; *better than the model ordinance*, *we trust.*
[49] A reviewing court may have an interest in that discussion, to be further briefed at that point in time.

Fourteenth Amendment.[50] Again, *all* of these zoning (or other) cases have involved demands, requirements or burdens the State (or local unit) has placed on the *zoning applicant*. None of these cases at that level, to the best knowledge of this writer, has *ever* crossed the property line so as to stray with State-imposed burdens onto either the land, or deep into the homes, of Non-Participants. When the State is constitutionally limited as to the burdens placed on an *applicant*, we can further imagine the State will be further constrained in placing burdens on the *applicant's neighbor* – a "Non-Participant." The use of an "industry standard" or a favorite part of the "German rule," whereby the Effects are time-limited at the humble cottage door (or within the abode itself), is unlikely to trump the vested property rights of these Non-Participants.

Whenever Deuel County, or even this Commission, purports to have the authority to ignore property lines, in the promotion and permitting of wind energy development, expressly declaring the burden that Non-Participants *must* henceforth (and forever) carry by reason of unfortunate circumstances,[51] the government agencies are taking rights associated with the ownership and possession of land (and homes) – and simply conferring them upon Applicant.

We turn to Justice Scalia's opinion in *Stop the Beach Renourishment, Inc. v. Florida Department of Environmental Protection, et al.*, 560 U.S. 702 (2010); state actors sought to promote the restoration of eroded beaches, and issued a permit pursuant to the Beach and Shore Preservation Act. Owners of beachfront property affected by the restoration act challenged the project, claiming denied of littoral rights without just compensation. The Florida Supreme Court ruled against the owners, the Supreme Court granted certiorari, and the focus then turned to the actions of the lower court and the effect of the ruling that no such rights had been taken.

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[50] Justice Scalia, author of much of the relevant case law, has passed but His Honor's work lives on.

[51] Those circumstances being, wherever Applicant has aggressively designed a wind farm, or, in the parlance of NARUC's Mr. Stanton, wherever the dart lands – "Put It There!" (then apply the imported portion of German siting standards in the process).

A prior decision of the Florida Supreme Court - *Beckwith v. Webb's Fabulous Pharmacies*, 374 So.2d 951 (1979) – had involved the purchaser of an insolvent corporation, and, having interpleaded the corporation's creditors, the purchaser placed the purchase money in an interest-bearing account under the jurisdiction of the Seminole County court, to be distributed in satisfaction of claims approved by the receiver. The Florida Supreme Court then construed the statute to mean that the interest earned on the account belonged to the county, because the account was considered "public money." The *Beckwith* case reached the U.S. Supreme Court and was decided in 1980 – 449 U.S. 155, with the Court deciding the lower court's order was a taking, by applying the general rule: "[t]he usual and general rule is that any interest on an interpleaded and deposited fund follows the principal and is to be allocated to those who are ultimately to be the owners of that principal." 449 U.S. at 162. "Neither the Florida legislature, by statute, nor the Florida courts by judicial decree, may accomplish the result the county seeks simply be recharacterizing the principal as 'public money.'" 449 U.S. at 164.

In considering *Beckwith*, Justice Scalia then wrote for the majority in *Stop the Beach* (560 U.S. at 715):

> In sum, the Takings Clause bars *the State* from taking private property without paying for it, no matter which branch is the instrument of the taking. To be sure, the manner of state action may matter: Condemnation by eminent domain, for example, is always a taking, while a legislative, executive, or judicial restriction of property use may or may not be, depending on its nature and extent. But the particular state *actor* is irrelevant. If a legislature *or a court* declares that what was once an established right of private property no longer exists, it has taken that property, no less than if the State had physically appropriated it or destroyed its value by regulation. "[A] State, by *ipse dixit*, may not transform private property into public property without compensation." [Id., 449 U.S. at 164.]

How is the State complicit in a taking of the real property interests of these Intervenors? By setting standards for a permitted (officially approved) invasion of Non-Participants property,

up to and including their very homes; and also by accepting expert testimony to the effect that "while these people look mighty peevish,[52] these Effects shouldn't kill them."

In dealing with Participants in other settings, Applicant dutifully extracted an "Effects Easement," while also attempting to maintain that text as a "trade secret," confidential. In casting those very same Effects on Non-Participants, however, Applicant has no apparent interest in pursuing an easement.[53] No rule of this Commission requires that such an easement be obtained, and the Commission willingly applies "known industry standards, borrowed from Germany" (my label) on a case-by-case basis. What would motivate Applicant to act or think otherwise? The governmental units and agencies simply license the invasion of Non-Participants' homes, while claiming, in effect, that "no one bans Shadow Flicker." Obtaining formal effects easements would cost both time and money *(if they can be obtained at all)* – much like a wind lease for the siting of turbines. A mere Permit, or even two of them, cannot cure what is lacking here – a legal right, granted by the owners of land.

This Commission cannot also simply pass the buck, claiming that all land use rights rest below, in the hands of the County with the Zoning Power – or, that in adopting the Proposed Permit Conditions (with these *ad hoc* limits or burdens as to Effects, to the extent imported from Germany), the Commission is simply attempting to license and allow this wind farm to proceed, all in the name and interests of "health, safety [and] welfare." By these actions, neither the County nor this Commission honor the property lines or property rights of Non-Participants.

The *Beckwith* case (see p. 26, above) – in which the Florida lower court attempted to declare all interest earned as being public money – harkens the recent case of *Knick v. Township*

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[52] Annoyed, or harassed.

[53] Note is taken of Exhibit I-8, "Participation Agreement" dated July 23, 2019. Assigned CR2-D38-P, no record for noise was submitted to Deuel County Board, while Shadow Flicker is reported at 15:26, 1,693 feet from closest turbine. Exhibit B, p. 1683 of 1707, of record in Circuit Court, Third Judicial Circuit, Deuel County, 19CIV18-000061, *Ehlebracht, et al. v. Deuel County Planning Comm'n, et al.*

of Scott, 588 U.S. ___, decided June 21, 2019, a majority opinion written by Chief Justice Roberts, and joined by Justices Thomas, Alito, Gorsuch and Kavanaugh. Knick owned a small farm, enclosing an old abandoned cemetery. The township adopted an ordinance requiring that landowners permit access to all such cemeteries during daylight hours. The township ordinance did not use the word "easement" across Mrs. Knick's farm, but yet compelled her to keep it open. The *legal effect* of the ordinance was that of an *easement*; in adopting the ordinance and then attempting to compel Mrs. Knick to allow access to her farm, the township had taken an ownership interest from her. By the same token, in permitting a wind farm to cast Effects in an invasive manner,[54] even up to some specific limits or thresholds honored in Germany, is not this Commission giving to this Applicant an "Effects Easement"? The question suggests the answer.

This Commission has the power to blunt unwelcomed use of a Non-Participant's home (unlucky in close proximity to the dart's point, thrown at the encouragement of Tom Stanton), but, we further assume, it chooses not to do so. If avoiding the making of rules because, as noted in *Prevailing Winds*, it is uncommon for a State to do so, *then a choice is yet being made*. That choice results in a qualified or defined right to inflict "annoyance" upon Non-Participants, and to engage in the harassment of these neighbors, whether when within or without their close. *It is not uncommon, however, for Germany to impose rules!* Why, in the name of honoring "industry standards," should South Dakota governmental units reach over national boundaries and the ocean to borrow a part of the German rules, dishonoring property rights in that process?[55]

Rather than simply importing German rules (well, a part, anyway – what about the 30 minutes daily limit, or the 8 hours annual limit, both referenced in Exhibit A12-16?) from that foreign land, and then applying them on an *ad hoc* basis to the rights of property ownership and

[54] That Shadow Flicker, inside a Non-Participant's home, is an invasive use, and a source of *annoyance*, hardly seems debatable.
[55] Hutchinson, Minnesota hasn't engaged in double-speak; see note 43, above.

enjoyment here in South Dakota, perhaps this Commission will look afresh at the need to protect the property rights – *inherently part of the welfare* – of the inhabitants of South Dakota. These Non-Participants played no role in the decision of Applicant to aggressively design a wind farm, or in Applicant's throw of Stanton's veritable dart in their direction, but they will surely bear the burden of these efforts and actions, and will harvest the resulting "Effects."

The orders and permits contemplated will allow invasive uses, right up to and including the homes of these Intervenors. This permitted use then *permanently damages* (or takes) the rights each Non-Participant otherwise has historically held to enjoy his or her property, including the ability to make use thereof in ways and for purposes that are consistent with the Zoning Ordinance.

V. The Common Law Prevails in South Dakota.

SDCL 1-1-24, "Common law and law merchant applied – Evidence of common law" - provides:

> The evidence of the common law, including the law merchant, is found in the decisions of the tribunals.
>
> In this state the rules of the common law, including the rules of the law merchant, are in force, except where they conflict with the will of the sovereign power, expressed in the manner stated in § 1-1-23.

Meanwhile, the latter statute, SDCL 1-1-23, provides, with the heading "Expressions of sovereign will":

> The will of the sovereign power is expressed:
>
> (1) By the Constitution of the United States;
> (2) By treaties made under the authority of the United States;
> (3) By statutes enacted by the Congress of the United States;
> (4) By the Constitution of this state;
> (5) By statutes enacted by the Legislature;
> (6) By statutes enacted by vote of the voters;
> (7) By the ordinances of authorized subordinate bodies;

> (8) Rules of practice and procedure prescribed by the courts or adopted by departments, commissions, boards, officers of the state, or its subdivisions pursuant to authority to do so.

Another statute of interest is SDCL § 1-1-22, "Law defined" –

Law is a rule of property and of conduct prescribed by the sovereign power.

While "ordinances of authorized subordinate bodies" includes Deuel County in the exercise of the Zoning Power, the statute needs to be viewed in descending order of importance; the County's Zoning Ordinance cannot exceed or violate the statutory and constitutional provisions that precede its position in this line up.

As fee owners, these Intervenors also have the right and privilege to possess and use their property to "the exclusion of others." SDCL § 43-2-1. These exclusionary rights are subject to certain doctrines or exceptions, such as the air navigation rights, for example. *Griggs v. County of Allegheny, Pa.*, 369 U.S. 84 (1962). Flights may pass far overhead without obtaining legal passage, but as the Court noted in *Griggs*, 369 U.S. at 89, the "use of land presupposes the use of some of the airspace above it," citing *United States v. Causby*, 328 U.S. 256, 265 (1946), as "an invasion of the 'superadjacent airspace' will often 'affect the use of the surface of the land itself.'"

While the wind turbines are being constructed on the lands of Intervenors, each of their homes is scheduled (or predicted) to receive an allocation of Shadow Flicker, which in this context is also an invasion by alternating light-shadow sequences multiple times per minute – one fleeting shadow for each pass of the blade before each window or opening. While these intrusions have now been routinely approved by the County since amendment of the Zoning Ordinance in 2018, and also by this Commission since that same year (or perhaps 2017), this question remains: what legal principal supports an assertion of power, exercised by the State and

favoring the wind farm applicant, so that this use is duly permitted, even as the legal owner – a Non-Participant – is *required* to accept this intrusion?

We know that Applicant itself has girded its own loins as to Participants by obtaining an Effects Easement for Shadow Flicker and other castings of a wind farm. But, as to Non-Participants, these burning questions remain – is Applicant expecting the Special Exception Permit, along with the Facility Siting Permit soon to issue, will comprise an "easement" for this use? Or is this display of Shadow Flicker[56] to be in the nature of an open, continued and unmolested use of the Non-Participant's land and home, so that after twenty years, a prescriptive easement will have arisen by operation of law? If the Commission has clear answers for these questions, Intervenors trust such will be included in the final decision and order.

South Dakota is one of the few state jurisdictions[57] with a statute like SDCL 43-13-2(8):

> The following land burdens or servitudes upon land may be attached to other land as incidents or appurtenances and are called easements: . . . .(8) The right of receiving air, light or heat from or over, or discharging the same upon or over land.

This provision was adopted by Dakota Territory in 1878, and thus far, no reported case has cited the law.

This statute strongly resembles the common law doctrine of ancient lights. In this reference, "lights" means "windows." If a window has been unblocked from sun for the prescriptive period (20 years), then the owner of that window has established a legal right – an easement over and as to adjacent lands or lots – to continue to receive sunlight.

In a typical rural setting, there are few structures that a neighbor might build (or hope to build) that would long obfuscate the sun. But, wind turbines – sited a few thousand feet distant –

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[56] Witness Haley, it is recalled, testified to the "shadow sausage," which seems to be pictured or represented on p. 29 of Exhibit DK-2, as part of Exhibit S1.

[57] North Dakota Century Code Annotated § 47-05-01; Montana Code Annotated § 70-17-101, plus also Oklahoma, California and Guam.

and rotating in the wind seem to be within the gambit of the statute. The rotor doesn't completely block the sun, of course – but it certainly adulterates it. The credible witnesses concede this shadow flicker is certainly an *annoyance* to the occupants of the afflicted home, even if this Commission prefers to rule on this concern as more of a "health, safety [and] welfare" issue, and doing so on a case-by-case basis (such as, *mere annoyance is not a health concern*, at least in the judgment of some).

The doctrine codified in SDCL 43-13-2(8) has been around for centuries in England, while being entirely untested by the courts of South Dakota. However, in a Florida case from 1959, *Fountainebleau Hotel Corp. v. Forty-Five Twenty-Five, Inc.*, 114 So.2d 357, the appellate court reviewed and reversed a lower court's restraining order to prevent a hotel from construction a substantial enlargement that would block a neighboring hotel's pool from the afternoon sun. The Florida court took an abrupt sledgehammer to the order, holding that "the English doctrine of 'ancient lights' has been unanimously repudiated in this country." The court, at 359, went on to say also that "[e]ven at common law, the landowner had no legal right, in the absence of an easement or uninterrupted use and enjoyment for 20 years, to unobstructed light and air from the adjoining land," citing *Blumberg v. Weiss*, 1941, 129 N.J.Eq.34, 17 A.2d 823. Calling this a "universal rule," the court further concluded: "There being, then, no legal right to the free flow of light and air from the adjoining land, it is universally held that where a structure serves a useful and beneficial purpose, it does not give rise to a cause of action, either for damages or for an injunction under the maxim *sic utere tuo ut alienum non laedas*, even though it causes injury to another by cutting off the light and air and interfering with the view that would otherwise be available over adjoining land in its natural state, regardless of the fact that the structure may have been erected partly for spite."

The old doctrine may be completely dead down there, but here it merely slumbers; we are in South Dakota, of course, not Florida. This writer remains unconvinced the old doctrine has been "unanimously repudiated" – at the very least, despite the passage of nearly 150 years, we can conclude this much: as of today, the courts of this state have not had the opportunity to weigh in on the meaning of SDCL § 43-13-2(8), particularly in today's context of wind turbines approaching the height of 500 feet, and the ever functioning rotor, spinning sunlight into "Shadow Flicker."

As a first year student at USD School of Law (winter of 1970), this writer vividly recalls study and discussion of the *Fountainebleu Hotel* case in the Property I law class taught by Associate Professor Oliver E. Laymon (Boston College, School of Law, 1947[58]), making use of the old Foundation Press casebook, with blue covers. The apparent conflict between this 1959 Florida case and the South Dakota statute (dating all the way back to 1878) was duly noted. "What happens here?" (meaning this state, South Dakota) one of the students asked. Now fifty years later, I can still recall the scene - the good professor shrugged his shoulders, rubbed his close-shaved head with one hand, while waving the other in the air, exclaiming to his class: "Someday, it will come up. Someday."[59]

These Intervenors *do* claim the benefit of SDCL § 43-13-2(8); the adulterated light – *in the form of Shadow Flicker, such features being never before encountered in this area of Goodwin* – and which this Commission is now proposing to expressly permit in favor of Crowned Ridge, is *not* acceptable to these Non-Participants. Applicant and this Commission are on notice accordingly. Just as the government cannot declare as "public" the money that Intervenors might carry in their wallets or earn on their bank accounts, nor can these Intervenors

[58] This information is based on memory of sitting before the professor's desk in his tiny office, looking at the prominent "sheepskin" hanging behind him, next to his U.S. Marine Corps discharge certificate.
[59] This is a true story. Not many of the 1972 class are yet in practice, or alive, to say otherwise.

(along with their homes and lands) be forcibly converted into permanent service as mere measured "receptors" for Effects from a wind farm, the one that this Commission seems ready to permit. A required permit, using German edicts, represents a *de facto* easement.[60] *Ipse dixit*.

These Intervenors, based on SDCL § 43-13-2(8), have two distinct claims here: *first*, they claim the right of servitude across the lands of their neighbors – Participants, having given the use of their lands over to Applicant – for the flow of air and light across those lands, and onto the lands of Non-Participants (this being the "receiving" aspect of the statute). As a consequence, these Intervenors also claim the right to be and remain free from the Applicant's continuous, permanent acts of dumping, from sites leased from Participants, of an adulterated light (Shadow Flicker) upon and into their homes and lands. While the Legislature remains busy adopting, adjusting and modifying the terms of wind and solar easements in Chapter 43-13, SDCL, *nothing* wrought by the Legislature has diminished or undercut potential claims arising under the work of the 1878 Territorial Legislature, now embraced in SDCL § 43-13-2(8).

Deuel County wields a much different view of the scope of Zoning Power than does the City of Hutchinson in Minnesota. Deuel County assumes the power is *expansive*, so that when the Stanton dart is thrown for an aggressive wind farm design, there's not much left to do at the local county courthouse gathering but to permit it, just as designed by Applicant, Shadow Flicker included, and without further quarrel. The Zoning Power cannot *lawfully* chart an easement or place a servitude upon or over a neighbor's land (or even worse, into the interior of his or her home), to accomodate an aggressive wind farm design as sought by Applicant. Such intrusions are not transformed into lawful uses simply because the agency attempts to limit the dose to "just add a little dash of Shadow Flicker."

[60] Deuel County's permit is not effective unless or until the EL19-027 permit issues.

VI. Participation Agreements

As we now know, there *is* one "Participation Agreement" in force for Deuel County, as represented by receptor CR2-D38-P (Schlotterbeck), up in the northwest corner of Section 6 of Rome Township. This appears to be a home and site of approximately four acres. The site will not hold turbines, but under the agreement (structured as a 3-year option) dated July 23, 2019 (several weeks after the application was filed in Pierre), an easement has been given up for the "effects" flowing from wind farm proximity, much like that within Section 5.2 of the Lease & Easement, sometimes referenced as the Kranz Easement (Exhibit I-2, bearing also the name and telephone number of Adam McDonald).

It is noted that compared to Intervenors Steven and Mary Greber (receptor CR2-D221-NP), those living within that receptor labeled CR2-D38-P are a *bit* closer to the nearest wind turbine (1,693 feet, compared to 1,995 feet for Greber, once the greenhouse receptor was moved to the east side of the Greber home). Shadow Flicker for Greber has been variously predicted (so many times, we've lost count), in the general range of 14 hours, with sound at 42 dBA, while for the residents of CR2-D38-P, it was in the range of 15:26 (as declared to the Board of Adjustment, per the administrative record filed in 19CIV18-000061), but has now fallen to 5:02 (Exhibit A21-2, Table C-2), with sound being pegged at 45 dBA (Exhibit A21-2, Table C-1). One of the major differences, of course, is the Schlotterbeck home and property is subject to the Participation Agreement,[61] while the Greber property and home is not.

This situation is the *essence of property rights*.[62] Schlotterbeck had the right to embrace – *or to reject* – the status of "participating." For whatever reason, they selected to be in privity

[61] The property was always shown as "Participating" before the Board of Adjustment; Greber's property was likewise mistakenly identified as such before the Board.

[62] As persons of skill, experience and licensure in the business world, each of the Comissioners understand property rights; likewise, we trust, the Commissioners fully appreciate also the impending violation of these rights by this Applicant.

of contract with Applicant. The Grebers, on the other hand, were never offered the status of "participating" (or a Participation Agreement), hastening to add, they likely would have rejected that status, *if* offered. (But, if this Commission rules in line with Exhibit S7, the Grebers are *not* free to reject the Effects. That is tantamount to a taking, a topic left to another time and place.)

To continue this discussion, we now arrive at the converse – the *essence of how property rights are violated.* This result naturally arises because of what the Grebers cannot now avoid (as far as Deuel County is concerned) – the "as felt, as seen, as heard and fully observed impact" of the "Effects" themselves upon their home and quality of life. The Effects will be coming, with or without any Participation Agreement, Applicant, as can be seen from Exhibit S7, being well on the way to full licensure for this aggressively designed wind farm. In the case of Shadow Flicker, this particular effect will be visited on the Grebers at a duration much greater than is predicted for the Schlotterbeck family.

This isn't a case of Crowned Ridge Wind II being legally precluded from offering a Participation Agreement to those unable or unwilling to host wind turbines. Rather, this is a case of Applicant itself not being willing to do so,[63] and there is no rule, regulation or statute requiring such an agreement, at the risk of being required to move or shift the turbine to avoid the Effects. The German rule – to the extent imported and now deployed as to landowners within the U.S. – establishes a limit of 30 hours annually. In most cases, Applicant is *not* over that limit. This limit, whether established by ordinance or an *ad hoc* application of what is deemed appropriate for the project, thus becomes the countervailing property claim – *a licensing privilege or expectation* - of Applicant itself. This Commission failed by not promulgating a clear, definitive "no immissions into the home" rule that wind farms *must* honor.[64]

[63] There being no "exceedences" as Applicant has termed those effects in excess of the one German standard they've imported for application here.
[64] Someone has done so, and such a rule seems fully square with the property rights of Non-Participants.

Consider also the vague representation that *if* the Effects are such that "there is a specific need to mitigate an identified impact with a non-participant, [then] the Applicant may enter into an agreement related to the implementation of the mitigation."[65] So, this vaguely promised relief, *such as it is*, would come at the conclusion of the case, after the wind farm is permitted and in operation. And, as this representation then further states (albeit shaped by our paraphrase at this point), "If the wind farm is really hurting you in your home and property, and you raise enough fuss about it, we might stop in and offer you a written agreement, perhaps, along with some money. Take it or leave it."

Applicant's selective use of some kind of an agreement, some amount of money, based on Applicant's assessment of what's the "right thing to do" at that point in time, is not assuring to these Intervenors – not even a little. The property rights of these Intervenors are not for sale, not to Applicant, nor to anyone. Government agencies might deign, for Applicant's benefit, to simply infringe upon those rights, but fortunately – *this being the United States with the protections afforded by law and the governing constitutions to property rights* – any such agency orders and the resulting wind farm permits will not be the final words on this subject.

VII. Conclusion

Even if this Commission believes Crowned Ridge will act justly as to the Effects, these Intervenors have no confidence that such would be so. This Applicant is part of a large group that – *as of today* – yet denies that Non-Participants have any property rights or interests at stake as to the casting of "Effects"[66] onto and *into* their homes. (Apart from the isolated example of the *one* Participation Agreement, discussed above. That *one* such example exists, with an easement for Effects, belies claims the fee owner has no property right in the avoidance.)

[65] See Exhibit DK-2, p. 21 of 157, Item 1-8, response of Tyler Wilhelm, part of Exhibit S-1.
[66] This coming from an Applicant who, as to each lease, includes an "Effects Easement."

Applicant further maintains, in line with the specific part of the German rule they've imported to govern themselves here, that "these are those 'immissions' every one of you Non-Participants are just going to have to learn to live with." Crowned Ridge adds: "This is how it is done in Germany!"[67] That this *isn't* Germany warrants frequent mention, the truth of which, we also trust, has not been lost, even briefly, on the members of this Commission.

Deuel County, eager to claim any benefits of another wind farm, paid scant attention. Before following after the County's exercise in favor of Applicant, embracing German-developed standards in the siting of *Windenergieanlagen*, and a flow of Effects to permanently afflict the homes and lands of Non-Participants, this Commission is urged to carefully study, measuring twice, the thin ice upon which the key, linked assumptions - *lawfulness of the Zoning Power, Non-Participants cannot avoid these Effects* - now rest. The assumptions are thin indeed.

Not one of the experts, not one of the prolific writers rushing (repeatedly) to the aid of Applicant, has considered, *even briefly*, the issue of the property rights held by these Intervenors. Declaring *ipse dixit* in Applicant's favor - *let it be so* – while licensing a permanent burden of Effects upon the homes and properties of these Intervenors, for whatever strength or duration is granted under the text and final form of Exhibit S7, seems unlikely to emerge as the final edict.

Dated at Canton, South Dakota, this 26th day of February, 2020.

Respectfully submitted,

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[67] These quotes are by literary license, Applicant's actions and testimony all clearly suggesting such.

State Wind Siting and Zoning Survey

State: South Dakota

Wind siting basics: A permit from the South Dakota Public Utilities Commission (PUC) is required for electric generating facilities with a capacity over 100 MW.
http://legis.state.sd.us/statutes/DisplayStatute.aspx?Type=Statute&Statute=49-41B-35

History of siting authority: Siting authority created by SD Legislature in SDCL 49-41B (1977) (http://legis.state.sd.us/statutes/DisplayStatute.aspx?Type=Statute&Statute=49-41B-1).

SDCL 43-13-21 through 24 (2009) established setbacks for wind turbines (http://legis.statse.sd.us/statutes/DisplayStatute.aspx?Type=Statute&Statute=43-13).

Draft Model Ordinance for Siting of Wind Energy Systems (2008) (http://puc.sd.gov/commission/twg/WindEnergyOrdinance.pdf).

Approvals needed: In addition to the permit from the PUC, approvals are required from the following agencies:

South Dakota Game, Fish & Parks, concerning grasslands, wetlands and wildlife, http://gfp.sd.gov/.

South Dakota State Historic Preservation Office, concerning historically important sites, http://history.sd.gov/Preservation/.

South Dakota Department of Environment and Natural Resources, concerning air and water protection, http://denr.sd.gov/.

South Dakota Department of Transportation, www.sddot.com/ – Need is dependent on whether the site will utilize state right-of-way.

Local Government (County/City Commission) – Building permits typically required regardless of project size.

The time frame for obtaining a permit from the PUC is (Binder, 2009):

- Notice of intent filed six months prior to Application for Permit. (Notice of intent process only applies to non-wind energy conversion facilities over 100 MW.)
- Application for Permit filed.
- Public Hearing within 60 Days.
- Decision within six months of receipt of Application (one year for non-wind energy conversion facilities).

Evaluation criteria: Evaluation criteria are laid out in SDCL 49-41B (http://legis.state.sd.us/statutes/DisplayStatute.aspx?Type=Statute&Statute=49-41B) and ARSD 20:10:22 (http://legis.state.sd.us/rules/DisplayRule.aspx?Rule=20:10:22).

"The Public Utilities Commission shall also hear and receive evidence presented by any state department, agency, or units of local government relative to the environmental, social, and economic conditions and projected changes therein" (http://legis.state.sd.us/statutes/DisplayStatute.aspx?Type=Statute&Statute=49-41B-19).

Public input: Per SDCL 49-41B-16, a public hearing shall be held as close as practicable to the proposed facility's location. Timing requirements usually schedule this about 60 days after the application is filed (http://legis.state.sd.us/statutes/DisplayStatute.aspx?Type=Statute&Statute=49-41B-16).

Relationships to other important energy policies or siting and zoning decisions: None identified.

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Citations and links:

Binder, Tim. (21 Oct 2009). *Wind Energy Facility Siting and Permitting in South Dakota*. South Dakota Public Utilities Commission. www.ndltap.org/events/conference/downloads/10-20Binder.pdf.

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Wind Resource Assessment Network, *South Dakota* [web page]. Retrieved 1 Jul 2011 from www.sdwind.com/.

Data collected by Marley Ward, 1 Jul 2011, Deborah Luyo, 24 Oct 2011.
Reviewed by Brian Rounds, 1 Dec 2011.

BEFORE THE PUBLIC UTILITIES COMMISSION
STATE OF SOUTH DAKOTA

In the Matter of the Application by CROWNED RIDGE WIND II, LLC *for a Permit of a Wind Energy Facility in Deuel, Grant and Codington Counties*	))))	Docket EL19-027

CERTIFICATE OF SERVICE

A true copy of **POST-HEARING BRIEF OF INTERVENORS GARRY EHLEBRACHT, *et al*, with Appendix A**, was transmitted (the date below) by undersigned, as counsel for said Intervenors to each of the following presently appearing on the Commission's Service List in this matter:

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Dated at Canton, South Dakota, this 27th day of February 2020.

Respectfully submitted,

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From the office of Miles F. Schumacher
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February 28, 2020

VIA ELECTRONIC SERVICE

Ms. Patricia Van Gerpen
Executive Director
South Dakota Public Utilities Commission
500 East Capitol Avenue
Pierre, SD 57501

Re: Application to the SD PUC for a Facility Permit to Construct a 300.6 Megawatt Wind Facility; EL19-027

Dear Ms. Van Gerpen:

In response to Staff Data Request No. 3-11, Crowned Ridge Wind II committed to filing the second round of Bat Acoustic survey results and report ("Report"). Attached is that Report.

If you have any questions, please contact me.

Yours very truly,

LYNN, JACKSON, SHULTZ & LEBRUN, P.C.

Miles Schumacher

Miles F. Schumacher
Enclosures
MFS:kab

013863

BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF SOUTH DAKOTA

IN THE MATTER OF THE APPLICATION BY CROWNED RIDGE WIND II, LLC FOR A PERMIT OF A WIND ENERGY FACILITY IN DEUEL, GRANT AND CODINGTON COUNTIES	)))))	EL19-027 **APPLICANT'S SECOND SUPPLEMENTAL RESPONSES TO STAFF'S THIRD SET OF DATA REQUESTS TO APPLICANT**

3-11) Referring to the response to data request 2-12, what is the intent of the additional bat acoustic surveys being completed and when will the results be available?

Response: CRW II has completed a second round of acoustic surveys in September 10, 2029 – November 12, 2019 to be responsive to a request by the US Fish and Wildlife Service. The objective of the survey was to determine the bat species present within areas of potentially suitable northern long-eared bat habitat during the survey period. Consistent with results of the CRW II initial acoustic survey, no northern long-eared bat calls were recorded during the 2019 effort. These results support the overall conclusion that northern long-eared bats are unlikely to be present in the Project Area as described in the Application, Section 11.3.1.2.2. The survey report is being prepared and will be filed in the CRW II docket in early February 2020.

Supplemental Response: See attached Bat Acoustic Survey Results.

Respondent: Sarah Sappington, Consultant

Dated this 28th day of February, 2020.

/s/ Miles F. Schumacher
Miles F. Schumacher
Attorneys for Applicant
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Pre-Construction Bat Acoustic Study Report for the Proposed Crowned Ridge II Wind Facility, Codington, Deuel, and Grant Counties, South Dakota

FEBRUARY 2020

PREPARED FOR

Crowned Ridge Wind II, LLC

PREPARED BY

SWCA Environmental Consultants

013865

PRE-CONSTRUCTION BAT ACOUSTIC STUDY REPORT FOR THE PROPOSED CROWNED RIDGE II WIND FACILITY, CODINGTON, DEUEL, AND GRANT COUNTIES, SOUTH DAKOTA

Prepared for

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SWCA Project No. 57578
February 2020

ADMINISTRATIVE RECORD - Scan 2 - Page 6 of 57

CONTENTS

1 Introduction 1
1.1 Project Overview 1

2 Methods 1
2.1 Detector Deployment 1
2.2 Acoustic Analysis 2

3 Results 4

4 Discussion 5

5 Literature Cited 6

Figure

Figure 1. Location of the proposed Crowned Ridge II project area showing acoustic detector unit place and Northern long-eared bat habitat suitability in Codington, Deuel, and Grant Counties, South Dakota.. 3

Tables

Table 1. Bat Species Comprising Probable Frequency Groups in the Proposed Crowned Ridge II Project Area 4
Table 2. Bat Passes Recorded within the Proposed Crowned Ridge II Project Area, September 10 through November 12, 2019..... 4
Table 3. Relative Bat Activity Recorded within the Proposed Crowned Ridge II Project Area, September 10 through November 12, 2019 4

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- Page 51 -

ADMINISTRATIVE RECORD - Scan 2 - Page 7 of 57

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- Page 52 -

1 INTRODUCTION

1.1 Project Overview

Crowned Ridge Wind II, LLC, a wholly owned indirect subsidiary of NextEra Energy Resources, LLC, plans to develop an approximately 200-megawatt (MW) wind facility known as the Crowned Ridge II Wind Energy Facility (the project) on approximately 60,996 acres of land (project area) in Codington, Deuel, and Grant Counties, South Dakota (Figure 1). The project includes an on-site generation tie line, which was previously permitted under South Dakota Public Utilities Commission (SDPUC) docket EL18-019. This line is located within the project area. Crowned Ridge Wind II, LLC, has entered into a purchase and sale agreement under which it will permit and construct the project (including the on-site generation tie line) and, thereafter, transfer the project, along with its Facility Permits, to Northern States Power at the commercial operations date. Construction is anticipated to commence in spring 2020, and the project is scheduled to achieve commercial operation at or before the end of 2020.

The U.S. Fish and Wildlife Service (USFWS) has developed voluntary guidance that includes measures intended to address potential concerns to bird and bat species as related to wind energy facilities. This voluntary guidance is outlined in the Land-Based Wind Energy Guidelines (WEGs) (USFWS 2012). In 2017, Crowned Ridge Wind II, LLC, requested that SWCA Environmental Consultants (SWCA) conduct acoustic bat surveys in habitat representative of that which was present within areas of potential project disturbance. That survey was completed from April 6, 2017 – December 1, 2017 and is summarized in the report titled *Pre-Construction Bat Acoustic Study Report for the Proposed Crowned Ridge II Wind Facility, Codington, Deuel, and Grant Counties, South Dakota* filed with the SDPUC on July 9, 2019. Crowned Ridge completed a second passive acoustic bat survey in 2019 to be responsive to USFWS comments received in July 2019. The objective of this survey was to determine the bat species present within areas of potentially suitable northern long-eared bat habitat during the survey period. This report describes the 2019 acoustic bat survey methods and results.

2 METHODS

2.1 Detector Deployment

Zero-crossing recording methods, which record the frequency of the single loudest soundwave detected, historically have been the standard in the field of bat acoustic monitoring. However, new technology allows for recording the full spectrum of sound created when a bat echolocates. The Anabat Swift developed by Titley Electronics is a bat detection system that uses a broadband microphone and data storage unit to detect and record ultrasonic sounds in the full spectrum. However, the conventional wisdom within the field, and in SWCA's experience, is that although recording in full spectrum collects the best data, processing and analysis in zero-crossing format yield the most accurate results. Therefore, all full-spectrum call files were converted into zero-crossing files prior to analysis.

In 2018, SWCA completed a desktop assessment to identify northern long-eared bat habitat suitability and relative quality within the project area (SWCA 2018, Figure 1). For the 2019

survey, SWCA selected four detector locations within suitable habitat or within areas connecting suitable habitat within the project area (Figure 1).

The microphones of two Anabat Swift units were affixed to the top of a 3-meter-high extendable pole. The microphone was connected to the detector with a microphone cable. Internal GPS allowed detectors to be set to record bat activity beginning at 30 minutes before sunset and through the night until 30 minutes after sunrise the following day. Detectors were deployed at Locations 1 and 2 between September 10 and October 1, 2019 and were relocated to Locations 3 and 4 where they recorded between October 2 and November 12, 2019.

2.2 Acoustic Analysis

Bat species produce echolocation calls based on their ecological niche requirements, which may demand different frequency bandwidth, call note duration, and other characteristics. These parameters can be assessed in the sonograms to facilitate species identification. However, intraspecific variation based on confounding factors (e.g., habitat and the presence of other bats) can make species identification difficult or impossible (Barclay and Brigham 2004); the *Myotis* bat species is generally recognized as being the most difficult to differentiate. Furthermore, the microphones cannot discriminate between bat calls and other ultrasonic sounds (e.g., rain, insects, and electrical or mechanical [collectively called noise]). Therefore, post-survey data analysis also includes separating files with bat calls from files containing noise.

SWCA used Kaleidoscope to convert full-spectrum files to zero cross and filter out files without bat passes (i.e., noise files); the remaining, converted bat pass files were then analyzed using software approved by the USFWS for automated identification of northern long-eared bats: Bat Call Identification (BCID) version 2.8b. A list of species that may be present within the project area was developed following the results of previous desktop reviews (SWCA 2018), and BCID was restricted to considering only those species during its autoclassification process.

Results from BCID were manually vetted by comparing characteristics of classified calls with known calls for species that may be present in the project area. All bat passes were manually identified by a trained biologist with experience in manual vetting and who has received training from recognized experts. Many species have similar, overlapping echolocation signatures, and bat calls can vary depending on habitat or activity; therefore, species differentiation is not always possible (Barclay 1999), particularly when only portions of the calls are recorded. As a result, SWCA categorized unidentifiable calls according to high and low frequency groups (≥ 35 kHz and < 35 kHz, respectively) (Table 1).

After each call file had been manually vetted, SWCA tabulated the total number of bat passes and relative bat activity by species and detector location. A bat pass is defined as a sequence of echolocation calls that are separated by greater than 1 second (O'Farrell et al. 1999; White and Gehrt 2001). A bat pass is a commonly used metric for interpreting relative bat activity at a site; however, the number of bat passes cannot be translated into the abundance of bats, because a single bat foraging near a bat detector can record multiple passes.

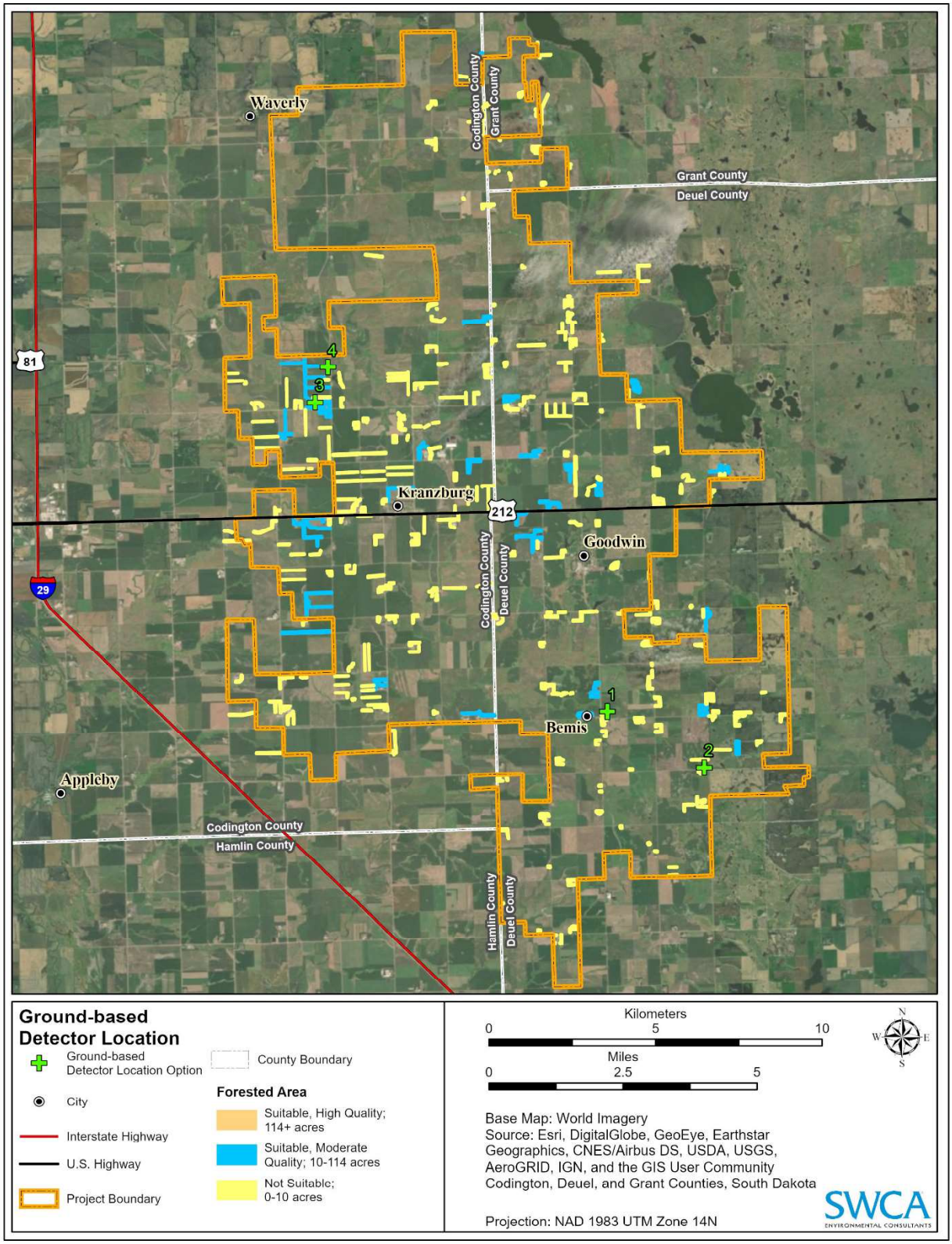


Figure 1. Location of the proposed Crowned Ridge II project area showing acoustic detector unit placement and northern long-eared bat habitat suitability in Codington, Deuel, and Grant Counties, South Dakota.

Table 1. Bat Species Comprising Probable Frequency Groups in the Proposed Crowned Ridge II Project Area

Low Frequency Group (< 35 kHz)	High Frequency Group (≥ 35 kHz)	*Myotis* Species
Hoary bat (*Lasiurus cinereus*)	Red bat (*Lasiurus borealis*)	Northern long-eared bat (*Myotis septentrionalis*)
Silver-haired bat (*Lasionycteris noctivagans*)	–	Little brown bat (*Myotis lucifugus*)
Big brown bat (*Eptesicus fuscus*)	–	–

3 RESULTS

From September 10 through November 12, 2019, 61 bat passes were recorded by the detectors (Table 2). Cumulatively, units recorded for 76 nights.

Table 2. Bat Passes Recorded within the Proposed Crowned Ridge II Project Area, September 10 through November 12, 2019

Detector Location	Hoary Bat	Low Frequency Group	Silver-Haired Bat	Unknown	Big Brown Bat	*Myotis* Species	Total
Ground-Based 1	3	1	12	0	11	0	**27**
Ground Based 2	6	1	7	1	12	0	**27**
Ground Based 3	0	0	0	0	0	0	**0**
Ground Based 4	2	0	3	0	2	0	**7**
Total	**11**	**2**	**22**	**1**	**25**	**0**	**61**

Cumulatively, all units recorded 61 bat passes during 76 nights of surveying, resulting in a relative bat activity index of 0.80 passes per detector-night.

Table 3. Relative Bat Activity Recorded within the Proposed Crowned Ridge II Project Area, September 10 through November 12, 2019

Detector Location	Hoary Bat	Low Frequency Group	Silver-haired bat	Unknown	Big brown bat	*Myotis* species	Total
Ground-Based 1	0.11	0.04	0.44	0	0.41	0	1.00
Ground-Based 2	0.22	0.04	0.26	0.04	0.44	0	1.00
Ground-Based 3	0	0	0	0	0	0	0
Ground-Based 4	0.29	0	0.43	0	0.29	0	1.01
Total	0.62	0.08	1.13	0.04	1.14	0	3.01

4 DISCUSSION

The northern long-eared bat was listed as a threatened species with a 4(d) rule on April 2, 2016 (USFWS 2016) and is the only currently federally listed species with potential to occur within the project area. However, the USFWS confirmed that there are no known northern long-eared bat hibernacula or maternity roost trees in Codington, Deuel, and Grant Counties. Additionally, based on their records, the USFWS stated that while the species could occur in these counties, it is likely to only be a migrant, rather than a resident species (USFWS pers. comm 2019). Surveys were conducted within the limited suitable northern long-eared bat habitat within the project area. No northern long-eared bats were recorded.

Given the time of year, the heavily agricultural landscape, and lack of roosting or foraging habitat within the project area, this low level of activity is unsurprising and likely suggests that the area is not a heavily used migration corridor for bats. Because of the lack of tree cover, it is also likely that the project area has a very small resident bat population, which is supported by the relatively low levels of overall bat activity.

Numerous studies have been conducted across the United States to allow for better prediction of the risk of bat mortality associated with wind energy facilities. Multiple variables could affect bat species' risk at wind energy facilities, including vegetation type(s) and habitat suitability, overall landscape and geographic characteristics, bat population densities, migration paths, or a species' use of an area (Johnson et al. 2011, Thompson et al. 2017, Roemer et al. 2019). Specific objectives of these bat studies were to gain an understanding of occurrence and use of the project area by bats and a relative activity index in support of monitoring recommendations provided in the WEGs.

Overall, the level of bat activity may suggest that bat use of the project area is relatively low. For comparison, Jain (2005) documented a mean activity level in 2003 and 2004 of 34.88 and 36.57 per detector-night, respectively, in Iowa. Because of the lack of suitable roosting and foraging habitat in the project area, the number of bats is likely much lower than what might be observed in other, more ecologically diverse parts of the country.

5 LITERATURE CITED

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SWCA Environmental Consultants. 2019. Pre-Construction Bat Acoustic Study Report for the Proposed Crowned Ridge II Wind Facility, Codington, Deuel, and Grant Counties, South Dakota. Bismarck, ND.

Thompson, M.B, J. A., Etterson, M., Diffendorfer, J. E., and Loss, S. R. 2017. Factors associated with bat mortality at wind energy facilities in the United States. Biological conservation, 215: 241-245.

U.S. Fish and Wildlife Service (USFWS). 2012. *U.S. Fish and Wildlife Service Land-Based Wind Energy Guidelines*. Available at: http://www.fws.gov/ecological-services/es-library/pdfs/WEG_final.pdf. Access November 2019.

———. 2016. Endangered and threatened wildlife and plants; threatened species status for the northern long-eared bat with 4(d) rule. *Federal Register* 80:17974–18033.

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BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF SOUTH DAKOTA

IN THE MATTER OF THE APPLICATION BY CROWNED RIDGE WIND II, LLC FOR A PERMIT OF A WIND ENERGY FACILITY IN DEUEL, GRANT AND CODINGTON COUNTIES	)))))	EL19-027 **CERTIFICATE OF SERVICE**

I hereby certify that true and correct copies of Applicant's Second Supplemental Responses to Staff's Third Set of Data Requests to Applicant along with attached CRII Bat Acoustic 2020 Final were served electronically on the parties listed below on the 28th day of February, 2020, addressed to:

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From the office of Miles F. Schumacher
e-mail address: mschumacher@lynnjackson.com

March 2, 2020

VIA ELECTRONIC SERVICE

Ms. Patricia Van Gerpen
Executive Director
South Dakota Public Utilities Commission
500 East Capitol Avenue
Pierre, SD 57501

Re: Application to the SD PUC for a Facility Permit to Construct a 300.6 Megawatt Wind Facility; EL19-027

Dear Ms. Van Gerpen:

Attached for filing is Crowned Ridge Wind II, LLC Post-Hearing Brief and Proposed Findings of Fact and Conclusions of Law.

If you have any questions, please contact me.

Yours very truly,

LYNN, JACKSON, SHULTZ & LEBRUN, P.C.

Miles F. Schumacher
Enclosure
MFS:kab

013878

BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF SOUTH DAKOTA

IN THE MATTER OF THE APPLICATION OF CROWNED RIDGE WIND II, LLC FOR A PERMIT OF A WIND ENERGY FACILITY IN DEUEL, GRANT AND CODINGTON COUNTIES	))))))	**CROWNED RIDGE WIND II, LLC POST-HEARING BRIEF AND PROPOSED FINDINGS OF FACT AND CONCLUSIONS OF LAW** **EL-19-027**

I. Introduction

Crowned Ridge Wind II, LLC ("CRW II") respectfully requests that the Public Utilities Commission of the State of South Dakota ("Commission") grant an Energy Facility Permit ("Permit") for CRW II's up to 300.6 megawatt ("MW") proposed wind facility to be located in Deuel, Grant, and Codington counties, South Dakota (the "Project"). CRW II will be transferred, along with the Permit, to Northern States Power Company prior to the commercial operations date.

On July 9, 2019, CRW II submitted an Application for a Permit to construct, operate, and maintain the proposed Project. The Project includes up to 132 wind turbine generators, access roads to turbines, underground 34.5-kilovolt ("kV") electrical collector lines, underground fiber-optic cable, a 34.5-kV to 230-kV collection substation, one permanent meteorological tower, and an operations and maintenance facility. In support of its Application, CRW II submitted pre-filed testimony and exhibits that demonstrate it has satisfied the burden of proof requirements of South Dakota Codified Law ("SDCL") 49-41B-22. No substantial evidence to the contrary has been submitted in this proceeding. Accordingly, CRW II respectfully requests the Commission issue a Permit for the Project.

In Appendix A to this Brief, CRW II has set forth proposed findings of fact and conclusions of law, including permit conditions ("Conditions") that have been agreed on by Commission Staff and CRW II in support of the Commission issuing the Permit.[1]

II. Legal Standard

In order to obtain a Permit for the proposed Project, SDCL 49-41B-22 requires that CRW II show:

> (1) The proposed facility will comply with all applicable laws and rules;
>
> (2) The facility will not pose a threat of serious injury to the environment nor to the social and economic condition of inhabitants or expected inhabitants in the siting area. An applicant for an electric transmission line, a solar energy facility, or a wind energy facility that holds a conditional use permit from the applicable local units of government is determined not to threaten the social and economic condition of inhabitants or expected inhabitants in the siting area;
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> (3) The facility will not substantially impair the health, safety or welfare of the inhabitants; and
>
> (4) The facility will not unduly interfere with the orderly development of the region with due consideration having been given the views of governing bodies of affected local units of government. An applicant for an electric transmission line, a solar energy facility, or a wind energy facility that holds a conditional use permit from the applicable local units of government is in compliance with this subdivision.

Further, pursuant to SDCL 49-41B-25, the Project must meet the applicable requirements of SDCL Ch. 49-41B.[2]

[1] Ex. S7 (Stipulated Conditions). Attachment A also includes Condition No. 47 related to Whooping Cranes that CRW II agreed to during the evidentiary hearing. Evid. Hrg. Tr. at 406 (February 5, 2020).

[2] The substantive project-related requirements of SDCL Ch. 49-41B are set forth in SDCL 49-41B-11, which CRW II included in its Application. Ex. S1 at 8-9 (Kearney Direct Testimony).

III. Argument

The record demonstrates that CRW II has met the burden of proof on each of the four statutory elements of SDCL 49-41B-22 and the other applicable requirements of SDCL Ch. 49-41B.

A. The Project will comply with all applicable laws and rules

The record shows that the Project will comply with all applicable laws and rules, including the county setbacks required in Deuel, Grant, and Codington counties.[3] Further, CRW II has agreed to Condition No. 1, which requires it to obtain all applicable and required governmental permits which reasonably may be required by any applicable township, county, state agency, federal agency, or any other governmental unit.[4] Condition No. 1 also requires CRW II to file an affidavit attesting it obtained all applicable permits prior to commercial operations. There is no evidence that the Project will not comply with all applicable laws and rules.[5] Accordingly, CRW II has met its burden of proof that it will comply with all applicable laws and rules.

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[3] Ex. A1 at 72-76, 111-112 (Application) and Ex. A5 at 8-11 (Wilhelm Direct Testimony).

[4] Attachment A to Proposed Findings of Facts and Conclusions of Law, Condition No. 1.

[5] CRW II needs to move turbine CRII-Alt2 120 feet to comply with Deuel County's setback from a non-participant's resident. The move of CRII-Alt2 will be shown in CRW II's preconstruction submittal required by Condition No. 43 set forth in Attachment A to Proposed Findings of Facts and Conclusions of Law. In the preconstruction filing, CRW II will show that the move of CRII-Alt2 complies with all applicable setbacks, as well as the sound and shadow flicker thresholds set forth in Condition Nos. 26 and 35.

Separately, at the evidentiary hearing, Intervenor Christenson questioned whether CRW II is in compliance with the Grant County Ordinance in effect at the time Grant County voted to approve the Project or the Ordinance made effective after the vote to approve the Project. CRW II testified that Grant County has indicated it intends to apply the Ordinance made effective shortly after approval of the CUP for the Project. Evid. Hrg. Tr. at 47-49 (Wilhelm) (February 4, 2020). The record in this proceeding shows that CRW II complies with both versions of the Grant County Ordinance – the one in effect at the time of the approval of the Project by Grant County, and the one made effective shortly after the vote. Evid. Hrg. Tr. at 217-218, 233-234, 237-239 (Haley) (February 4, 2020); Exs. A2; A14; A21 (Haley Direct, Supplemental and Rebuttal Testimony); Ex. A14-1 through Ex. A14-4 (Supplemental Testimony Sound and Shadow Flicker Studies); Ex. A21-1 through Ex. A21-3; and Ex. A28 and Ex. 29 (Rebuttal

B. The Project will not pose a threat of serious injury to the environment nor to the social and economic condition of inhabitants or expected inhabitants in the siting area

The Project will not pose a threat of serious injury to the environment nor to the social and economic condition of inhabitants or expected inhabitants in the siting area, which is demonstrated, pursuant to SDCL 49-41B-22, by CRW II being granted conditional use permits ("CUP") by Grant County and Codington County and a special exemption permit ("SPE") by Deuel County for those portions of the Project located in the respective counties.[6] Therefore, CRW II has meet its burden pursuant to SDCL 49-41B-22(2), because it has obtained the requisite county permits.

Further, the record additionally shows that the proposed Project will not pose a threat of serious injury to the environment,[7] including geological resources,[8] soil resources,[9] hydrological resources,[10] terrestrial ecosystems,[11] wildlife,[12] aquatic systems,[13] land use,[14] and air and water

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Testimony Sound and Shadow Flicker Results); and Ex. AC-19. Therefore, the record shows that CRW II will be in compliance with applicable laws, including the Grant County Ordinance.

[6] Ex. A1-K (Copies of County Permits).

[7] Ex. A1 at 28-90 (Application); Ex. A3 at 3-14 (Sappington Direct Testimony); Ex. A18 at 3-5 (Sappington Supplemental Testimony); Ex. A24 at 3-5 (Sappington Rebuttal Testimony); Evid. Hrg. Tr. at 376-378 (Sappington) (February 5, 2020).

[8] Ex. A1 at 31-35 (Application) and Ex. A1-A, Figures 9a, 9b, and 10 (Maps).

[9] Ex. A1 at 31-35 (Application) and Ex. A1-A, Figures 9a, 9b, and 10 (Maps).

[10] Ex. A-1 at 38-44 (Application); Ex. A1-A, Figure 12.

[11] Ex. A1 at 44-70 (Application); Ex. A1-F (Dakota Skipper and Poweshiek Skipperrling Survey); Ex. A1-G (2017-2018 Raptor Nest Survey Report); Ex. A1-H (Avian Use Survey Report); Ex. A1-E (Bat Habitat Assessment Report); and Ex. A1-D (Bat Acoustic Survey Report).

[12] Ex. A1 at 50-67 (Application).

[13] *Id.* at 70.

[14] Ex. A1 at 71-86 (Application); Ex. A1-A (Figures); Ex. A5 at 7-13 (Wilhelm Direct Testimony); Exs. A2; A14; A21 (Haley Direct, Supplemental and Rebuttal Testimony); Ex. A14-1 through Ex. A14-4 (Supplemental Testimony

quality.[15] CRW II has committed to implement reasonable avoidance and mitigation measures to minimize the impact on the environment.[16] In addition, CRW II has conducted surveys in consultation with applicable tribes[17] and the South Dakota State Historical Preservation Office[18] to identify historical and cultural items of significance in the Project area. In support of protecting the environmental and cultural resources, CRW II has also agreed to a number of Permit conditions.[19] Therefore, the Project will not pose a threat of serious injury to environmental and cultural resources.

In addition, the record demonstrates that the proposed Project will not pose a threat of serious injury to the social and economic condition of inhabitants or expected inhabitants.[20] Over a 10 year period, the Project has been developed through an iterative process to identify the Project area.[21] During this time, CRW II worked closely with federal and state agencies,

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Sound and Shadow Flicker Studies); Ex. A21-1 through Ex. A21-3; and Ex. A28 and Ex. 29 (Rebuttal Testimony Sound and Shadow Flicker Results). CRW II has an easement option that is scheduled to expire prior to the start of construction. CRW II is actively seeking to renew the option, and expects that the option will be renewed prior to a decisional vote on the Permit. If the easement option is not renewed, turbine location CRII-85 will be eliminated.

[15] Ex. A1 at 86-90 (Application).

[16] Ex. A1 at 28-90 (Application); Ex. A3 at 3-14 (Sappington Direct Testimony); Ex. A18 at 3-5 (Sappington Supplemental Testimony); Ex. A24 at 3-5 (Sappington Rebuttal Testimony).

[17] Ex. A1 at 100-105 (Application); Ex. A3 14-16 (Sappington Direct Testimony); Evid. Hrg. Tr. at 377 (Sappington) (February 5, 2020); Evid. Hrg. Tr. at 535, 537-538 (Olson) (February 5, 2020).

[18] Evid. Hrg. Tr. at 377 (Sappington) (February 5, 2020); Evid. Hrg. Tr. at 535-536, 538 (Olson) (February 5, 2020).

[19] *See* Attachment A to Proposed Findings of Facts and Conclusions of Law, Condition Nos. 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 22, 23, 29, 30, 31, 32, 33, 38 and 47. On Condition No. 29, CRW II understand that South Dakota Game, Fish & Parks supports a modification to only require CRW II to conduct 1 year of post construction mortality monitoring to assess predictions of wildlife fatality risk at CRW II, and for the funds set aside for the second year of post-construction mortality monitoring to be reallocated to fund a three-year raptor study at CRW I and CRW II.

[20] Ex. A1 at 90-100, 105-108 (Application); Ex. A1-L (Property Value Effects Studies); Ex. A1-M (Telecommunication Studies); Ex. A14 (Marous Supplemental Testimony); Ex. A14-1 (Market Impact Analysis) Ex. A22 (Marous Rebuttal Testimony); Ex. S5 and Ex. S6 (Direct and Supplemental Testimony of Lawrence).

[21] Ex. A1 at 2, 26-28 (Application).

landowners, and tribal and local governments to design and site the infrastructure for the Project.[22] To protect the social and economic characteristics of the area, CRW II has also agreed to conditions that address impacts on local communication and transportation systems.[23] Further, in support of the local economy, the Project will produce benefits to the community, including the payment of property taxes, lease payments, temporary jobs for 250 construction workers, and 7-12 permanent workers stationed in South Dakota.[24] CRW II will use lighting required by the Federal Aviation Administration ("FAA"),[25] and has also committed to equip the Project with a FAA-approved Aircraft Detection Lighting System to minimize visual impact of the Project starting at commercial operations.[26] Accordingly, the Project will not pose a threat of serious injury to the social and economic condition of inhabitants or expected inhabitants.

C. The Project will not substantially impair the health, safety, or welfare of the inhabitants

The record demonstrates that the proposed Project will not substantially impair the health, safety, or welfare of inhabitants. Specifically, CRW II has committed that the Project will produce: (1) no more than 45 dBA of sound at any non-participant's residence; and (2) no more than 50 dBA sound at any participant's residence.[27] Similarly, CRW II has committed that

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[22] Ex. A1 at 2, 26-28, 86; A5 at 4-12 (Wilhelm Direct Testimony).

[23] *See* Attachment A to Proposed Findings of Facts and Conclusions of Law, Condition Nos. 7, 8, 9, and 24.

[24] Ex. A1 at 106 (Application); Ex. A4 at 8-9 (Thompson Direct Testimony).

[25] Ex. A1 at 14, 21, 85.

[26] Ex. A-1 at 21, 85 (Application); Attachment A to Proposed Findings of Facts and Conclusions of Law, Condition No. 34.

[27] Exs. A2; A14; A21 (Haley Direct, Supplemental and Rebuttal Testimony); Ex. A1-I (Sound Modeling Report); Ex. A14-1 and Ex. A14-3 (Supplemental Testimony Sound Studies); Ex. A21-1; Ex. A21-3; Ex. A28 and Ex. 29 (Updated Rebuttal Sound Results); Attachment A to Proposed Findings of Facts and Conclusions of Law, Condition No. 26.

the Project will produce no than 30 hours of shadow-flicker annually at all residences,[28] with the understanding it will need to curtail Turbine No. CRWII Alt-3 for approximately 8 hours and 20 minutes a year to ensure CR1-C10-P does not receive more than 30 hours of shadow flicker annually.[29]

To support the accuracy of the sound and shadow-flicker results, CRW II used a number of conservative modeling assumptions, such as:

Sound[30]

- The wind turbines were assumed to be operating at their maximum sound emission levels;
- A 2 dBA adder was applied to the turbines' sound emission levels;
- The turbines were assumed to be downwind of the receptor at all times; and
- The atmospheric conditions were assumed to be the most favorable for sound to be transmitted.

Shadow-Flicker[31]

- All residences were modeled as if they were built entirely out of windows;
- No credit was applied for any blockage from trees; and

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[28] Exs. A2; A14; A21 (Haley Direct, Supplemental and Rebuttal Testimony); Ex. A1-J (Shadow Flicker Modeling Report); Ex. A14-2 and Ex. A14-4 (Supplemental Testimony Shadow Flicker Studies); Ex. A21-2; Ex. A21-3; Ex. A28 (Updated Rebuttal Shadow Flicker Results); Attachment A to Proposed Findings of Facts and Conclusions of Law, Condition No. 35.

[29] Evid. Hrg. Tr. at 220 (Haley) (February 4, 2020); Ex. A13 at 5 (Hart Supplemental Testimony).

[30] Ex. A1-I at 1 (Sound Modelling Results); Evid. Hrg. Tr. at 217-218 (Haley) (February 4, 2020).

[31] Ex. A1-J at 1, 6 (Shadow Flicker Modelling Results); Evid. Hrg. Tr. at 218-220 (Haley) (February 4, 2020).

- It was assumed that the wind turbines were operating 100% of the time.

CRW II witnesses Drs. Ollson and McCunney testified that, based on the design of the Project, including its modeled levels of sound and shadow-flicker, the Project will not substantially impair the health or welfare of non-participants and participants.[32] There is no substantial evidence that contradicts the testimony provided by Drs. Ollson and McCunney, and, therefore, the record demonstrates that the Project will not substantially impair the health or welfare of non-participants and participants.

To mitigate sound further, CRW II has agreed to Condition No. 27 in order to reduce certain non-participant sound levels, consistent with the proposal advocated by Staff witness Hessler.[33] In addition, CRW II has committed to use low noise trialing edge blade attachments on all turbine blades[34] and General Electric's Enhanced Power Curve Operation software to mitigate sound during operation.[35]

Based on CRW II's commitments, including implementing Condition No. 27, the following is the expected sound and shadow flicker impacts to the Intervenors:[36]

[32] Ex. A10, and Ex. A10-2 through A10-16 (Ollson Supplemental Testimony and Exhibits); Ex. A15, and Ex. A15-2 through A15-8 (McCunney Supplemental Testimony); Ex. A20 (Ollson Rebuttal Testimony); Evid. Hrg. Tr. at 322-323, 329-330 (McCunney) (February 5, 2020); Evid. Hrg. Tr. at 335-337, 368-369 (Ollson) (February 5, 2020).

[33] Attachment A to Proposed Findings of Facts and Conclusions of Law, Condition No. 27; Ex. S2 (Hesseler Direct Testimony).

[34] Ex. A13 at 4 (Hart Supplemental Testimony).

[35] Ex. A25 at 2-3 (Thompson Rebuttal Testimony).

[36] Ex. A28.

Intervenor	Sound Level (dBA)	Shadow-Flicker (Hours Annually)
Christenson	41.2	6:54
Robish	30.0	0:00
Mogen	28.8	0:00
Ehlebracht	42.2	3:14
Greber	41.8	14:22
Rall	40.5	13:27
Kranz	41.2	3:04

The record also demonstrates that the proposed Project will not substantially impair the safety of inhabitants. CRW II has committed to meet or exceed the required setbacks established for safety reasons.[37] CRW II will also implement safety practices during the construction, operation, and maintenance of the Project, including grounding the wind turbines in accordance with National Electrical Safety Code standards.[38] The Project will be monitored twenty-four hours a day, seven days a week through the Supervisory Control and Data Acquisition system.[39] CRW II will implement a Storm Water Pollution Prevention Plan and a Spill Prevention, Control, and Countermeasures Plan, both of which will ensure that coordination with state and local disaster services occurs in the event of the accidental release of contaminants.[40] Further, CRW II, pursuant to Condition No. 36, also agrees to use two methods to detect icing conditions on

[37] Ex. A1 at 73-76 (Application) and A5 at 8-10 (Wilhelm Direct Testimony).

[38] Ex. A1 at 21, 108 (Application) and Ex. A4 at 3, 5, 7 (Thompson Direct Testimony).

[39] Ex. A1 at 24-25 (Application) and A4 at 5, 8 (Thompson Direct Testimony).

[40] Ex. A1 at 13, 14, 25, 37, 39, 43, 88, 95, 98 (Application).

turbine blades to shut down turbines when they are accumulating ice.[41] Accordingly, the Project will not substantially impair the safety of inhabitants.

D. The Project will not unduly interfere with the orderly development of the region

The record demonstrates that the proposed Project will not unduly interfere with the orderly development of the region, which is demonstrated by the granting of CUPs by Grant County and Codington County and a SPE by Deuel County for the applicable portions of the Project in the respective counties.[42] CRW II has also committed to decommissioning the Project at the end of its 25-year useful life, provided the life of the Project is not extended by retrofitting the turbines and power systems.[43] In support of decommissioning, CRW II has agreed to fund decommission as required by Condition No. 33.[44] Thus, the Project will not unduly interfere with the orderly development of the region.

IV. Conclusion

For the reasons set forth herein, the Commission should grant CRW II an Energy Facility Permit.

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[41] *See* Attachment A to Proposed Findings of Facts and Conclusions of Law, Condition No. 36.

[42] Ex. A5 at 7-10 (Wilhelm Direct Testimony); Ex. A1-K (County Conditional Use Permits).

[43] Ex. A1 at 107 (Application); Ex. A1-N (Decommission Plan).

[44] *See* Attachment A to Proposed Findings of Facts and Conclusions of Law, Condition No. 33.

Sincerely,

March 2, 2020

/s/ Miles Schumacher

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APPENDIX A

BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF SOUTH DAKOTA

IN THE MATTER OF THE APPLICATION OF CROWNED RIDGE WIND II, LLC FOR A PERMIT OF A WIND ENERGY FACILITY IN DEUEL, GRANT AND CODINGTON COUNTIES	))))))	**PROPOSED FINDINGS OF FACT AND CONCLUSIONS OF LAW**
		EL-19-027

APPEARANCES

Commissioners Gary Hanson, Chris Nelson, and Kristie Fiegen.

Miles Schumacher of Lynn, Jackson, Shultz & Lebrun, P.C. 110 N. Minnesota Ave., Suite 400 Sioux Falls, SD 57104 and Brian J. Murphy, NextEra Energy Resources, LLC, 700 Universe Blvd, Juno Beach, FL 33408, appeared on behalf of Crowned Ridge Wind II, LLC.

Kristen Edwards and Amanda Reiss, 500 E. Capitol Ave., Pierre, South Dakota 57501, appeared on behalf of the South Dakota Public Utilities Commission Staff (Staff).

A.J. Swanson, 27452 482nd Ave., Canton, SD 57013, appeared on behalf of Intervenors Garry Ehlebracht, Steven Greber, Mary Greber, Richard Rall, Amy Rall and Laretta Kranz (collectively Ehlebracht et el. Intervenors), while Amber Christenson, Allen Robish, and Kristi Mogen appeared during the proceeding as individual *pro se* Intervenors, with Kristi Mogen not attending the evidentiary hearings.

PROCEDURAL HISTORY

On July 9, 2019, the Public Utilities Commission of the State of South Dakota (Commission) received an Application for an Energy Facility Permit (Application) from Crowned Ridge Wind II, LLC (Crowned Ridge II or Applicant), a wholly-owned, indirect subsidiary of NextEra Energy Resources, LLC. Crowned Ridge II proposes to construct a wind energy conversion facility to be located in Deuel County, Grant County, and Codington County, South Dakota (Project). The Project would be situated on approximately 60,996 acres in the townships of Waverly, Kranzburg North, Kranzburg South, Troy, Rome, Goodwin, and Havana South Dakota (Project Area). The total installed capacity of the Project would not exceed 300.6 megawatts (MW) of nameplate capacity. The proposed Project includes up to 132 wind turbine generators, access roads to turbines and associated facilities, underground 34.5-kilovolt (kV) electrical collector lines, underground fiber-optic cable, a 34.5-kV to 230-kV collection

substation, one permanent meteorological tower, and an operations and maintenance facility. Crowned Ridge II will use the Crowned Ridge II 5-mile 230-kV generation tie line and the Crowned Ridge II collector substation to transmit the generation to the dead-end transmission structure adjacent to the Crowned Ridge Wind, LLC (CRW I) project's collector substation. Using a breaker position at the CRW I project collector substation, the 300.6 MW from Crowned Ridge II Project will be aggregated with the up to 300 MW from the CRW I project collector substation and conjoined to the CRW I 230-kV transmission line, which is to be interconnected to the Big Stone South 230-kV Substation which is owned by Otter Tail Power Company. The Applicant has entered into a purchase and sale agreement under which it will permit and construct this Project, and, thereafter, transfer the Project, along with its Facility Permit, to Northern States Power Company (NSP) prior to the commercial operations date (COD). The Project is expected to be completed in the fourth quarter of 2020. Applicant estimates the construction cost of the Project to be $425 million.

On July 9, 2019, the Applicant filed the pre-filed testimony of Sarah Sappington, Mark Thompson, Jay Haley, Richard Lampeter, Tyler Wilhelm, and Daryl Hart.

On July 11, 2019, the Commission issued the Notice of Application; Order for and Notice of Public Input Hearing; Notice for Opportunity to Apply for Party Status. Pursuant to SDCL 49-41B-15 and 49-41B-16, the Commission in that order scheduled a public input hearing on the Application on Monday, August 26, 2019, at 5:30 p.m., CDT, at the Whitewood Room, Watertown Event Center, 1901 9th Ave. SW, Watertown, South Dakota. The order also set a deadline for party status applications to be filed on or before 5:00 p.m., CDT, September 9, 2019.

On July 29, 2019, the Applicant filed affidavits of landowner notices and newspaper publications.

The Commission had the notice of the public input hearing published in the following publications: Milbank/Grant County Review, July 24, 2019, August 7 and 21, 2019 editions; Watertown Public Opinion, July 24, 2019, August 7 and 21 2019 editions; Clear Lake Courier July 24, 2019, August 7 and 21, 2019 editions; and South Shore Gazette, July 25, August 8 and 22, 2019 editions.

On July 31, 2019, the Commission issued an order assessing the Applicant a filing fee not to exceed $412,500 with an initial deposit of $8,000. This order also granted party status to Amber Christenson, Allen Robish, and Kristi Mogen. On August 26, 2019, the Commission also issued an order granting party status to Garry Ehlebracht, Steven Greber, Mary Greber, Richard Rall, Amy Rall, and Laretta Kranz.

On August 26, 2019 the public input hearing was held at the Whitewood Room, Watertown Event Center, 1901 9th Ave. SW, Watertown, South Dakota.

On September 20, 2019, the Commission issued an order establishing the procedural schedule, including scheduling evidentiary hearings on February 4-7, 2020.

On September 20, 2019, the Applicant filed supplemental testimony of Chris Ollson, Robert McCunney, Jay Haley, Mark Thompson, Tyler Wilhelm, Daryl Hart, Michael Marous, and Sarah Sappington.

On October 1, 2019, the Commission issued an order and notice of evidentiary hearing for February 4-7, 2020 to be conducted at the Matthew Training Center, Foss Building, 523 E. Capital Ave., Pierre, South Dakota.

On December 9, 2019, Staff filed testimony from Darren Kearney, David Hessler, Hilary Meyer, David Lawrence, and Paige Olson. On December 12, 2019, the Ehlebracht et el. Intervenors filed the testimony of Garry Ehlebracht, Steven Greber, Amy Rall, and Laretta Kranz

On January 8, 2020, the Applicant filed Rebuttal testimony of Sarah Sappington, Dr. Chris Ollson, Jay Haley, Richard Lampeter, Mark Thompson, Michael Marous, and Tyler Wilhelm.

On January 23, 2020, Staff filed supplemental testimony of David Lawrence.

On February 4, 5, and 6, 2020 the Commission held evidentiary hearings.[1]

On March 2, 2020, post hearing briefs were filed by Crowned Ridge, Staff, and Intervenors.

Having considered the evidence of record, applicable law, and the briefs and arguments of the parties, the Commission makes the following Findings of Fact, Conclusions of Law, and Order:

FINDINGS OF FACT

I. PROCEDURAL FINDINGS.

1. The Procedural History set forth above is hereby incorporated by reference in its entirety in these Procedural Findings. The procedural findings set forth in the Procedural History are a substantially complete and accurate description of the material documents filed in this docket and the proceedings conducted and decisions rendered by the Commission in this matter.

[1] The Commission granted, in part, Crowned Ridge II's motion to strike certain portions of Ehlebracht *et el.* Intervenors's testimony. Order Granting, In Part, Motion to Strike (February 14, 2020).

II. PARTIES.

2. Crowned Ridge Wind II, LLC (Applicant or Crowned Ridge II) is a wholly-owned, indirect subsidiary of NextEra Energy Resources, LLC (NextEra).[2] NextEra, through its affiliates, is the world's largest generator of renewable energy from the wind and sun, generating over 19,000 MWs in 29 states and Canada.[3]

3. Garry Ehlebracht, Steven Greber, Mary Greber, Richard Rall, Amy Rall and Laretta Kranz (also referred to as the Ehlebracht et el. Intervenors), as well as Amber Christenson, Allen Robish, and Kristi Morgan were granted party status.

4. Staff fully participated as a party in this matter, in accordance with SDCL 49-41B-17(1).

III. APPLICABLE STATUTES AND REGULATIONS FOR A WIND ENERGY FACILITY PERMIT.

5. The following South Dakota statutes are applicable: SDCL 49-41B-1 through 49-41B-2.1, 49-41B-4, 49-41B-5.2, 49-41B-11 through 49-41B-19, 49-41B-22, 49-41B-25, 49-41B-26 through 49-41B-37 and applicable provisions of SDCL Chapters 1-26 and 15-6.

6. The following South Dakota administrative rules are applicable: ARSD Chapters 20:10:01 and 20:10:22.

7. Under SDCL 49-41B-22, the Commission must find that:

> (1) The proposed facility will comply with all applicable laws and rules;
>
> (2) The facility will not pose a threat of serious injury to the environment nor to the social and economic condition of inhabitants or expected inhabitants in the siting area. An applicant for an electric transmission line, a solar energy facility, or a wind energy facility that holds a conditional use permit from the applicable local units of government is determined not to threaten the social and economic condition of inhabitants or expected inhabitants in the siting area;
>
> (3) The facility will not substantially impair the health, safety or welfare of the inhabitants; and
>
> (4) The facility will not unduly interfere with the orderly development of the region with due consideration having been given the views of governing bodies of affected local units of government. An applicant for an electric transmission line, a solar energy facility, or a wind energy facility that holds a conditional use permit from the applicable local units of government is in compliance with this subdivision.

[2] Ex. A1 at 1 (Application).
[3] Ex. A5 at 1 (Wilhelm Direct Testimony).

8. SDCL 49-41 B-25 provides that the Commission must make a finding that the construction of the facility meets all applicable requirements of Chapter 49-41B.

9. There is sufficient evidence on the record for the Commission to assess the proposed Project using the criteria set forth above.

IV. PROJECT DESCRIPTION

10. The proposed Project is an up to 300.6 MW wind facility to be located in Deuel County, Codington County, and Grant County, South Dakota.[4] The Project is situated within an approximately 60,996 acre Project Area and will include the following: (i) up to 132 wind turbine generators with 117 General Electric (GE) 2.3 turbines and 15 GE 2.1 turbines; (ii) access roads to turbines and associated facilities; (iii) underground 34.5-kilovolt (kV) electrical collector lines connecting the turbines to the collection substation; (iv) underground fiber-optic cable for turbine communications co-located with the collector lines; (v) the low-side of a 34.5 to 230-kV collection substation; (vi) two permanent meteorological tower; (vii) an operations and maintenance facility; and (viii) temporary construction areas, including laydown and batch plant areas.[5] The estimated construction cost associated with the wind facility is approximately $425 million.[6] Fluctuations in Project costs could be as much as 20% percent, dependent on final micrositing and MISO interconnection costs.[7] The Project will utilize the Crowned Ridge II 5-mile generation tie line and the CRW I's 34-mile 230 kV generation tie line and a new reactive power compensation substation[8] to transmit the generation from the Project's collector substation to the Project's point of interconnection located at the Big Stone South 230 kV Substation, which is owned by Otter Tail Power Company.[9] The Applicant has no plans for future expansion of the Project.[10]

11. As a result of demand for the facility, the Applicant has executed a purchase and sales agreement (PSA) with Northern States Power Company (NSP) and will transfer the Project, including this Permit, to NPS prior to commercial operations.[11] Also, on July 6, 2017, the Minnesota Public Utilities Commission approved NSP's Petition for Approval of the Acquisition of Wind Generation from the Company's 2016-2030 Integrated Resource Plan, including the PSA with NSP. On December 6, 2018, North Dakota Public Service Commission issued an order granting an advance determination of prudence for the PSA between NSP and the Applicant.[12] The commercial operation date for the Project is projected to in the fourth quarter of 2020.[13]

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[4] Ex. A1 at 1 (Application); Ex A1-A (Figures) and Ex. A11-2 (Maps of 200 MW and 100 MW Deferral); Ex A27-2 (Updated Land Status Map for 200 MW and 100 MW Deferral).
[5] Ex. A1 at 1, 18-26 (Application); Ex. A1-A (Figures 4a, 4b, and 5); Ex. A27-2 (Updated Land Status Map for 200 MW and 100 MW Deferral).
[6] Ex. A1 at 18 (Application).
[7] *Id.* at 19.
[8] The 5-mile generation tie line was approved in Docket No. EL18-018, while the 34-mile transmission gen tie line and reactive compensation substation were approved in Docket No. EL17-050.
[9] Ex. A1 at 1 (Application).
[10] *Id.* at 106.
[11] *Id.* at 1-2, 15; Ex. A6 at 3 (Hart Direct Testimony).
[12] Ex. A1 at 2 (Application).
[13] *Id.* at 1, 90.

12. The Applicant submitted testimony explaining that it may defer the construction of 100 MWs based on the results of MISO and SPP interconnection studies and costs.[14] The Applicant may defer the 100 MWs up to four years, with the understanding that it will need certification from the Commission that the 100 MW array continues to comply with the conditions of the Facility Permit.[15]

13. The Applicant has entered into lease and easement agreements with private landowners within the Project Area for the placement of Project infrastructure.[16] The Applicant anticipates that the life of the Project will be approximately 25 years, which is consistent with the Project's contracted term.[17] At the end of the Project's contracted life there may be opportunities to extend the life of the Project by repowering the Project by retrofitting the turbines and power system with upgrades based on new technology, which may allow the wind farm to produce efficiently and successfully for many more years.[18] In the event the Project's contracted life is not extended, the record demonstrates that the Applicant has appropriate and reasonable plans for decommissioning.[19] The Project will be decommissioned in accordance with applicable state and county regulations.[20] The Applicant has agreed to Condition No. 33 for purposes of decommissioning the Project.

14. The record demonstrates that Crowned Ridge II submitted substantial evidence on the potential cumulative impacts of the Project, and that the Project will not have a significant impact.[21]

VI. SATISFACTION OF REQUIREMENTS FOR ISSUANCE OF AN ENERGY FACILITY PERMIT.

A. The proposed facility will comply with all applicable laws and rules.

15. The evidence submitted by Crowned Ridge II demonstrates that the Project will comply with applicable laws and rules.[22] Pursuant to Condition No. 1, the Applicant also commits to obtain all governmental permits which reasonably may be required by any applicable township, county, state agency, federal agency, or any other governmental unit for the

[14] Ex. A13 at 2-4 (Hart Supplemental Testimony); Ex. A13-2 (Maps of 200 MW and 100 MW Deferral); Ex A27-2 (Updated Land Status Map for 200 MW and 100 MW Deferral); Evid. Hrg. Tr. at 112-113, 128-130 (Hart) (February 4, 2020).
[15] Ex. A13 at 3 (Hart Supplemental Testimony); Ex A27-2 (Updated Land Status Map for 200 MW and 100 MW Deferral).
[16] Ex. A1 at 27, 107 (Application) and Ex. A17 at 7 (Wilhelm Supplemental Testimony).
[17] Ex. A1 at 107 (Application).
[18] *Id*.
[19] *Id*. at Appendix N and Ex. A4 at 9-10 (Thompson Direct Testimony).
[20] Ex. A1 at 107 (Application).
[21] Ex. A1-I (Sound Modeling Report) and Ex. A1-J (Shadow Flicker Modeling Report); Exs. A2; A14; A21 (Haley Direct, Supplemental and Rebuttal Testimony); Ex. A12-2 (Updated Sound Study); Ex. A12-3 (Updated Shadow Flicker Study); Ex. A12-1 through Ex. A12-4 (Supplemental Testimony Sound and Shadow Flicker Studies); Ex. A21-1 through Ex. A21-3; and Ex. A28 and Ex. 29 (Rebuttal Testimony Sound and Shadow Flicker Results).
[22] Ex. A1 at 72-76, 111-112 (Application) and Ex. A5 at 8-11 (Wilhelm Direct Testimony).

construction and operation of the Project prior to engaging in the particular activity covered by the permit.[23]

16. Subject to the Permit conditions, the Project meets all applicable requirements of SDCL Chapter 49-41B and ARSD Chapter 20:10:22.[24]

B. <u>The facility will not pose a threat of serious injury to the environment nor to the social and economic condition of inhabitants or expected inhabitants in the siting area.</u>

17. The Applicant holds a Conditional Use Permit (CUP) from both Grant County and Codington County, and a Special Exception Permit (SEP) from Deuel County,[25] which pursuant to SDCL 49-41B-22(2), demonstrates that the Project does not threaten serious injury to environment or the social and economic condition of inhabitants or expected inhabitants in the siting area. The following, therefore, is additional evidence that the Project does not threaten serious injury to environment or the social and economic condition of inhabitants or expected inhabitants in the siting area

1. <u>Environment</u>.

18. The evidence demonstrates that the Project does not pose a threat of serious injury to the environment.[26] The evidence also shows that Crowned Ridge II will implement reasonable avoidance and mitigation measures to limit potential environmental impacts.[27] With respect to geological resources, the evidence shows that the project will not pose a threat of serious injury to these resources.[28] The evidence further shows that the impact to geological resources from the Project will be minimal.[29]

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[23] At the evidentiary hearing, Intervenor Christenson questioned whether the Applicant was in compliance with the Grant County Ordinance in effect at the time Grant County voted to approve the Project or the Ordinance that was made effective after the County's vote to approve the Project. The Applicant testified that Grant County has indicated it intends to apply the Ordinance made effective shortly after approval of the CUP for the Project. Evid. Hrg. Tr. at 47-49 (Wilhelm) (February 4, 2020). The record in this proceeding shows that Crowned Ridge II complies with both versions of the Grant County Ordinance – the one in effect at the time of the approval of the Project by Grant County, and the one made effective shortly after the vote. Evid. Hrg. Tr. at 217-218, 233-234, 237-239 (Haley) (February 4, 2020); Exs. A2; A14; A21 (Haley Direct, Supplemental and Rebuttal Testimony); Ex. A14-1 through Ex. A14-4 (Supplemental Testimony Sound and Shadow Flicker Studies); Ex. A21-1 through Ex. A21-3; and Ex. A28 and Ex. 29 (Rebuttal Testimony Sound and Shadow Flicker Results); and Ex. AC-19. Therefore, the record shows that the Crowned Ridge II will be in compliance with applicable laws, including the Grant County Ordinance.

[24] Ex. A1 through Ex. A29 (Application, Testimony, Exhibits); Ex. S1 (Direct Testimony of Kearney) and Ex. S7 (Stipulated Conditions).

[25] Ex. A5 at 7-10 (Wilhelm Direct Testimony) Ex. A1-K (County Use Permits).

[26] Ex. A1 at 28-90 (Application); Ex. A3 at 3-14 (Sappington Direct Testimony); Ex. A18 at 3-5 (Sappington Supplemental Testimony); Ex. A24 at 3-5 (Sappington Rebuttal Testimony); Ex. S7 (Stipulated Conditions); Evid. Hrg. Tr. at 376-378 (Sappington) (February 5, 2020).

[27] *Id*.

[28] Ex. A1 at 31-35 (Application) and Ex. A1-A, Figures 9a, 9b, and 10 (Maps).

[29] Ex. A1 at 34-35 (Application).

19. The evidence demonstrates that the Project does not pose a threat of serious injury to soil resources, including prime farmland.[30] The Project during construction will only impact approximately 1,940.2 acres of the 60,995 acre Project Area during construction, and only approximately 76.2 acres on a permanent basis.[31] Table 11.3 of the Application sets forth additional detail on the temporary and permanent impacts from the Project, broken down by land cover type.[32] During and after construction a number of mitigation measures, including best management practices (BMP), a Storm Water Pollution Prevention Plan (SWPPP), and a Spill Prevention, Control, and Countermeasures Plan (SPCCP), will be implemented to minimize the impacts to soil resources.[33] For example, during construction, the Applicant has committed ". . . to protect topsoil and minimize soil erosion. Soil areas disturbed during construction will be decompacted and returned to preconstruction contours to the extent practicable and in accordance with landowner agreements."[34]

20. The evidence also demonstrates that the Project does not pose a threat of serious injury to hydrological resources.[35] The evidence shows there will only be limited and temporary impacts to: (i) groundwater resources; (ii) existing surface water resources; and (iii) current and planned water uses.[36] To minimize impacts, the Applicant has committed to implement BMPs, a SWPPP, and SPCC to mitigate impacts to hydrology resources.[37] The evidence also shows there will be no impact to flood storage areas.[38] The Applicant has indicated the amount of water it will likely use during construction, and has committed to obtain any necessary permits for water sources used during construction and operations.[39]

21. The evidence demonstrates that the Project does not pose a threat of serious injury to terrestrial ecosystems.[40] Specifically, there are no anticipated impacts to federally or state-listed plants.[41] The Project will not involve any significant tree-clearing.[42] Also, Crowned Ridge II has designed the Project so to minimize, or, if possible, avoid infrastructure being site in wetlands.[43] To minimize temporary impacts to vegetation due to construction, the Applicant has also committed to implement BMP, a SWPPP, and SPCCP.[44] While the Project Area contains U.S. Fish and Wildlife Service (USFWS) wetland and wetland/grassland combination easements, the Project has been designed to avoid protected basins such that no surface impacts to protected basins are expected.[45] The Applicant will avoid impacts to USFWS grasslands and grassland-

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[30] Ex. A1 at 36-39 (Application) and Ex. A1-A, Figure 11 (Maps).
[31] Ex. A1 at 36-37 and 46-47 (Application).
[32] *Id*. at 46-47.
[33] *Id*. at 37, 88.
[34] *Id*. at 37.
[35] *Id*. at 38-44; Ex. A1-A, Figure 12.
[36] Ex. A1 at 38-44 (Application).
[37] *Id*.
[38] *Id*. at 43.
[39] *Id*. at 39, 40, 41, 44.
[40] Ex. A1 at 44-70 (Application); Ex. A1-F (Dakota Skipper and Poweshiek Skipperrling Survey); Ex. A1-G (2017-2018 Raptor Nest Survey Report); Ex. A1-H (Avian Use Survey Report); Ex. A1-E (Bat Habitat Assessment Report); and Ex. A1-D (Bat Acoustic Survey Report).
[41] Ex. A1 at 47 (Application).
[42] *Id*. at 50.
[43] *Id*.
[44] *Id*. at 87-89.
[45] *Id*. at 43.

wetland combination easements, as well as avoid impacts to native grassland to the extent practicable.[46] The BMPs will include re-vegetation practices and erosion control devices.[47] The Applicant has also agreed to compensate landowners for crop damage.[48] Pursuant to Condition No. 16, the Applicant will develop and implement a plan to control noxious weeds.

22. The evidence demonstrates that Crowned Ridge II does not pose a threat of serious injury to wildlife.[49] The Applicant has conducted extensive studies and consulted relevant studies to understand the potential impact to wildlife.[50] The Applicant will implement an avoidance, minimization, and mitigation approach to lessen the impact the Project has on wildlife, including mammals and avian species.[51] Crowned Ridge II also agreed to Staff's condition on the monitoring and mitigation of impacts to Whooping Cranes, which is included as Condition No. 47.[52] There will be no turbines or other infrastructure sited on Waterfowl Production Areas, Game Production Areas, walk-in areas, grassland, wetland/grassland combination easements, or on Farmers Home Administration Easements.[53] Pursuant to Condition No. 30, the Applicant will file a Bird and Bat Conservation Strategy prior to the start of construction. Also, Staff witness Morey-Meyer testified that the Applicant had appropriately coordinated with the South Dakota Department of Game, Fish, & Parks on the impact of the Project on wildlife.[54]

23. The evidence demonstrates that the Project does not pose a threat of serious injury to aquatic ecosystems.[55] Similarly, the evidence demonstrates that the Project does not pose a threat of serious injury to land use and will comply with local controls.[56] The Applicant has coordinated with landowners to locate infrastructure in a manner that minimizes the impact to their land uses.[57] The evidence further demonstrates that there are no anticipated material impacts to existing air and water quality, and the Project will comply with applicable air and water quality standards and regulations.[58] The Applicant also committed to implement a number of BMPs to mitigate the impact of the Project on air and water quality.[59]

24. The Applicant will use lighting required by the Federal Aviation Administration (FAA).[60] The Applicant has also committed to equip the Project with a FAA-approved Aircraft

[46] *Id*. at 14.
[47] *Id*.
[48] *Id*. at 47; Ex. A3 at 6 (Sappington Direct Testimony).
[49] Ex. A1 at 50-67 (Application).
[50] Ex. A1 at 50-67 (Application); Ex. A1-F (Dakota Skipper and Poweshiek Skipperrling Survey); Ex. A1-G (2017-2018 Raptor Nest Survey Report); Ex. A1-H (Avian Use Survey Report); Ex. A1-E (Bat Habitat Assessment Report); and Ex. A1-D (Bat Acoustic Survey Report); Ex. A3 at 3-5 (Sappington Direct Testimony).
[51] Ex. A1 at 63-64, 66-67 (Application).
[52] Evid. Hrg. Tr. at 406 (February 5, 2020).
[53] Ex. A1 at 77 (Application).
[54] Evid. Hrg. Tr. at 540-541, 544 (Morey-Meyer) (February 6, 2020).
[55] Ex. A1 at 70 (Application).
[56] Ex. A1 at 71-86 (Application); Ex. A1-A (Figures); Ex. A5 at 7-13 (Wilhelm Direct Testimony); Exs. A2; A14; A21 (Haley Direct, Supplemental and Rebuttal Testimony); Ex. A14-1 through Ex. A14-4 (Supplemental Testimony Sound and Shadow Flicker Studies); Ex. A21-1 through Ex. A21-3; and Ex. A28 and Ex. 29 (Rebuttal Testimony Sound and Shadow Flicker Results).
[57] Ex. A5 at 13 (Wilhelm Direct Testimony).
[58] Ex. A1 at 86-90 (Application).
[59] *Id*. at 87-90.
[60] *Id*. at 14, 21, 85.

Detection Lighting System (ADLS) to minimize visual impact of the Project starting at commercial operations.[61]

25. The Applicant has undertaken extensive study, surveys, and consultation with applicable tribes to identify and avoid sites of cultural, archaeological, and historical importance.[62] For example, the Applicant's Records Search per the South Dakota State Historic Preservation Office (SD SHPO) guidance identified 22 previously documented archaeological sites, 12 previously documented historic bridges, 54 previously documented standing historic structures, and 3 previously documented cemeteries have been recorded inside and within 1 mile of the Project Area.[63] As a mitigation measure, the Applicant will avoid direct physical impacts to National Register of Historic Places listed sites.[64]

26. The Applicant also consulted with the tribal members from the Sisseton Wahpeton Oyate, Yankton Sioux, and Spirit Lake Nation tribes (who were selected to represent those all applicable tribes) to identify significant tribal resources, and the Applicant included them as part of the survey field team.[65] The Applicant further consulted with the SD SPHO on the type and content of surveys.[66] Under Condition No. 11, the Applicant agrees to avoid direct impacts to cultural resources not previously identified and evaluated or notify the Commission and the SD SHPO if avoidance cannot be achieved so to coordinate minimization and/or treatment measures. Under Condition No. 12, the Applicant will also develop a plan to address any anticipated discovery of cultural resources, consistent with SDCL 34-27-25, 34-27-26, and 34-27-28. Pursuant to Condition No. 13, the Applicant will file with the Commission any amendments to the Level III Archaeological survey for prior to commercial operation. Further, pursuant to Condition No. 38, the Applicant will implement specific avoidance, minimization, and mitigation measures for Traditional Cultural Properties. Based on the record in this proceeding and the above Conditions, the Applicant has demonstrated that it will minimize or avoid impacts to cultural resources.

2. *Social and Economic*.

27. The Applicant has been developing the Project for 10 years through an iterative process to identify the Project Area.[67] During this time, the Applicant worked closely with federal and state agencies, landowners, and tribal and local governments to properly design and site the infrastructure for the Project.[68] The Applicant has all land rights needed to construct and operate the Project.[69]

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[61] *Id*. at 21, 85.
[62] Ex. A1 at 100-105 (Application); Ex. A3 14-16 (Sappington Direct Testimony); Evid. Hrg. Tr. at 377 (Sappington) (February 5, 2020); Evid. Hrg. Tr. at 535, 537-538 (Olson) (February 5, 2020).
[63] Ex. A1 at 101 (Application); Ex. A1-0 (Cultural Confidential).
[64] Ex. A1 at 104 (Application).
[65] Ex. A1 at 103 (Application); Ex. A3 at 15-16 (Sappington Direct Testimony).
[66] Ex. A1 at 109-108 (Application); Ex. A3 at 16 (Sappington Direct Testimony); Ex. A1-B (Agency Coordination).
[67] Ex. A1 at 2, 26-28 (Application).
[68] Ex. A1 at 2, 26-28, 86; A5 at 4-12 (Wilhelm Direct Testimony).
[69] Ex. A17 at 7 (Wilhelm Supplemental Testimony); Ex. A27-2 (Updated Land Status Map for 200 MW and 100 MW Deferral).

28. The Applicant has demonstrated that the Project does not pose a threat of serious injury to the community.[70] The Project will only permanently impact approximately 76 acres of land, with approximately 57 acres of prime farmland.[71] The Project is expected to have a negligible effect, if any, on the assessed values of private property and, therefore, on property taxes.[72] The Applicant has committed to coordinate with first responders and provide them with the Applicant's safety plan.[73] Further, the Applicant has demonstrated that the construction and operation of the Project will result in benefits to South Dakota and local economies through payment of property taxes and lease payments.[74] Also, there will be approximately 250 temporary workers used during the construction or the Project, and 7-12 permanent workers in South Dakota to conduct operation and maintenance activities, including 10 wind technicians, 1 lead wind technician, and 1 site manager.[75]

29. The record also demonstrates that the Project is not expected to adversely impact communication systems, such as microwave, AM, FM, cellular, TV, and aviation towers.[76] Also, pursuant to Condition No. 24, the Applicant has agreed to take action to minimize interference the Project causes to radio, television, and other licensed communication transmitting or receiving equipment.

30. The record demonstrates that the Applicant will avoid and/or minimize impacts to transportation.[77] The Applicant has committed to coordinate with the South Dakota Department of Transportation (SDDOT), Deuel County, Codington County and Grant County, and Project Area townships to manage construction traffic, and to ensure that equipment and components are delivered safely to the Project. The Applicant will also obtain SDDOT Highway Access and Utility Permits prior to construction, and contractors will be required to obtain applicable over height or overweight haul permits. County road permits required for right-of-way occupancy, utility crossings, road approaches, and overweight loads will be obtained by the Applicant from Deuel County, Codington County and Grant County prior to beginning construction activities for which the permit is required.[78] Condition Nos. 7 and 8 also require Crowned Ridge II to obtain applicable road use agreements and implement specific road protection practices. Accordingly, based on the record, the Project does not pose a threat of serious injury to the community.

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[70] Ex. A1 at 90-100, 105-108 (Application); Ex. A1-L (Property Value Effects Studies); Ex. A1-M (Telecommunication Studies); Ex. A14 (Marous Supplemental Testimony); Ex. A14-1 (Market Impact Analysis) Ex. A22 (Marous Rebuttal Testimony); Ex. S5 and Ex. S6 (Direct and Supplemental Testimony of Lawrence).
[71] Ex. A1 at 37 (Application).
[72] Ex. A1 at 95 (Application) and Ex. A1-L (Property Value Effects Studies); Ex. A14 (Marous Supplemental Testimony); Ex. A14-1 (Market Impact Analysis); Ex. A22 (Marous Rebuttal Testimony); Ex. S5 and Ex. S6 (Direct and Supplemental Testimony of Lawrence).
[73] Ex. A1 at 98 (Application).
[74] Ex. A1 at 17, 93 (Application); Ex. A5 at 12-13 (Wilhelm Direct Testimony); and Ex. A6 at 3 (Hart Direct Testimony); Ex A6-2 (Allocation of Tax Revenues).
[75] Ex. A1 at 106 (Application); Ex. A4 at 8-9 (Thompson Direct Testimony).
[76] Ex. A1 at 99-100 (Application) and A1-M (Telecommunication Study).
[77] Ex. A1 at 98-99 (Application).
[78] *Id*. at 24.

C. The facility will not substantially impair the health, safety or welfare of the inhabitants.

31. The record demonstrates that the Applicant has appropriately minimized the sound level produced from the Project to the following: (1) no more than 45 dBA at any non-participants' residence and (2) no more than 50 dBA at any participants' residence.[79] These sound levels were modeled using the following conservative assumptions: (1) the wind turbines were assumed to be operating at maximum sound emission levels; (2) a 2 dBA adder was applied to the wind turbines sound emission levels; (3) the wind turbines were assumed to be downwind of the receptor at all times; and (4) the atmospheric conditions were assumed to be the most favorable for sound to be transmitted.[80] The Project will also not result in sound above 50 dBA at any non-participants property boundaries for those residences in Codington County.[81] The Applicant modelled sound levels with consideration the communicative sound impacts from Deuel Harvest and CRW I wind projects.[82] Further, the Applicant agreed to Condition No. 27 in order to further reduce certain non-participant sound levels, consistent with the proposal advocated by Staff witness Hessler.[83] Pursuant to Condition No. 26, the Applicant agreed to a post construction sound protocol to be used in the event the Commission orders post construction sound monitoring.

32. Similarly, the record also demonstrates that the Applicant has appropriately minimized the shadow and flicker for the Project to no more than 30 hours for all participants and non-participants inclusive of cumulative impacts from Deuel Harvest and CRW I, with the understanding that wind turbine CR-Alt-3 will need to be curtailed to ensure the shadow and flicker is no more than 30 hours at receptor CR1-C10-P.[84] The Applicant also used conservative assumptions, such as the greenhouse-mode, no credit for blockage due to tree and assumed the wind turbines were operating 100% of the time to model shadow and flicker, which, in turn, produces conservative results.[85]

33. There is no record evidence that the Project will substantially impair human health or welfare. To the contrary, Crowned Ridge II witnesses McCunney and Ollson submitted evidence that demonstrates that there is no human health or welfare concern associated with the Project as designed and proposed by the Applicant.[86] Both Crowned Ridge II witnesses analyzed the scientific peer-reviewed literature in the context of the proposed Project, and witness

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[79] Exs. A2; A14; A21 (Haley Direct, Supplemental and Rebuttal Testimony); Ex. A1-I (Sound Modeling Report); Ex. A14-1 and Ex. A14-3 (Supplemental Testimony Sound Studies); Ex. A21-1; Ex. A21-3; Ex. A28 and Ex. 29 (Updated Rebuttal Sound Results).
[80] Ex. A1-I at 1 (Sound Modelling Results); Evid. Hrg. Tr. at 217-218 (Haley) (February 4, 2020).
[81] *Id*. at 2.
[82] Ex. A1-I at 8-9 (Sound Modelling Results).
[83] Ex. S2 (Hessler Direct Testimony).
[84] Ex. A13 at 5 (Hart Supplemental Testimony); Exs. A2; A14; A21 (Haley Direct, Supplemental and Rebuttal Testimony); Ex. A1-J (Shadow Flicker Modeling Report); Ex. A14-2 and Ex. A14-4 (Supplemental Testimony Shadow Flicker Studies); Ex. A21-2; Ex. A21-3; Ex. A28 (Updated Rebuttal Shadow Flicker Results); Evid. Hrg. Tr. at 220 (Haley) (February 4, 2020).
[85] Ex. A2 at 7 (Haley Direct Testimony); Ex. A1-J at 1, 6; Evid. Hrg. Tr. at 218-220 (Haley) (February 4, 2020).
[86] Ex. A10, and Ex. A10-2 through A10-16 (Ollson Supplemental Testimony and Exhibits); Ex. A15, and Ex. A15-2 through A15-8 (McCunney Supplemental Testimony); Ex. A20 (Ollson Rebuttal Testimony); Evid. Hrg. Tr. at 322-323, 329-330 (McCunney) (February 5, 2020); Evid. Hrg. Tr. at 335-337, 368-369 (Ollson) (February 5, 2020).

McCunney testified based on his experience and training as a medical doctor specializing in occupational health and the impact of sound and shadow flicker on humans.[87]

34. There is no record evidence that the Project will substantially impair safety. The Applicant will meet or exceed required setbacks established for safety,[88] and, also, implement safety practices during construction, operation, and maintenance, including grounding wind turbines in accordance with National Electrical Safety Code standards.[89] The Project will be monitored twenty-four hours a day, seven days a week through the Supervisory Control and Data Acquisition system.[90] Also, the Applicant will implement a SWPPP and SPCC, part of which will ensure that state and local disaster services are coordinated with in the event of the accidental release of contaminants.[91] The Applicant will illuminate the wind turbines as required by the FAA,[92] with the understanding the Applicant has also agreed under Condition No. 34 to equip the Project with an ADLS. Condition No. 36 also requires the Applicant to use two methods to detect icing conditions on turbine blades to shut down turbines when they are accumulating ice. Condition No. 9 additionally requires that the Applicant develop and file a Temporary Traffic Control Plan. Further, Condition No. 4 requires the Applicant to mail to participant and non-participating landowners detailed safety information, including safety precautions, 14 days prior to the commencement of construction. Therefore, based on the record, the Project will not substantially impair safety.

D. The facility will not unduly interfere with the orderly development of the region with due consideration having been given the views of governing bodies of affected local units of government.

35. The Applicant holds CUPs from Grant County and Codington County, and a SEP from Deuel County.[93] Given that the Applicant holds these permits from the applicable local units of government, the Applicant has demonstrated, consistent with SDCL 49-41B-22(4), that the Project will not unduly interfere with the orderly development of the region.

In addition, Crowned Ridge II has committed to decommissioning the Project at the end of its 25 year useful life, provided the life of the Project is not extended by retrofitting the turbines and power systems.[94]

36. The Applicant has also committed to fund decommissioning consistent with Condition No. 33.

IV. GENERAL

37. An application may be denied, returned, or amended, at the discretion of the Commission, for failure to file an application generally in the form and content required by

[87] *Id*.
[88] Ex. A1 at 73-76 (Application) and Ex. A5 at 8-10 (Wilhelm Direct Testimony).
[89] Ex. A1 at 21, 108 (Application) and Ex. A4 at 3, 5, 7 (Thompson Direct Testimony).
[90] Ex. A1 at 24-25 (Application) and Ex. A4 at 5, 8 (Thompson Direct Testimony).
[91] Ex. A1 at 13, 14, 25, 37, 39, 43, 88, 95, 98 (Application).
[92] *Id*. at 14.
[93] Ex. A5 at 7-10 (Wilhelm Direct Testimony); Ex. A1-K (County Use Permits).
[94] Ex. A1 at 107 (Application); Ex. A1-N (Decommission Plan).

SDCL Chapter 49-41B and ARSD Chapter 20:10:22. SDCL 49-41B-13(2). The Commission finds that Applicant filed its application generally in the form and content required by SDCL Chapter 49-41B and ARSD Chapter 20:10:22. The Commission notes that the supplementation of an application with additional information is common in Commission practice.

38. An application may be denied, returned, or amended, at the discretion of the Commission, if there are any deliberate misstatements of material facts in the application or in accompanying statements or studies. SDCL 49-41B-13(1). The Commission finds that the application and its accompanying statements and studies did not contain any deliberate misstatements of material facts.

39. The Commission finds that the Permit Conditions attached hereto as Attachment A and incorporated herein by reference are supported by the record, are reasonable and will help ensure that the Project will meet the standards established for approval of a construction permit for the Project set forth in SDCL 49-41B-22 and should be adopted.

40. The Commission finds that the Project, if constructed in accordance with the terms and conditions of this decision, will comply with all applicable laws and rules, including all requirements of SDCL Chapter 49-41B and ARSD Chapter 20:10:22.

41. The Commission finds that the Project, if constructed in accordance with the terms and conditions of this decision, will not pose an unacceptable threat of serious injury to the environment nor to the social and economic conditions of inhabitants or expected inhabitants in the siting area.

42. The Commission finds that the Project, if constructed in accordance with the terms and conditions of this decision, will not substantially impair the health, safety or welfare of the inhabitants in the siting area.

43. The Commission finds that the Project, if constructed in accordance with the terms and conditions of this decision, will not unduly interfere with the orderly development of the region with due consideration having been given the views of governing bodies of affected local units of government.

44. The Commission finds that a permit to construct the Project should be granted subject to the Permit Conditions set forth in Attachment A.

45. To the extent that any Conclusion of Law set forth below is more appropriately a finding of fact, that Conclusion of Law is incorporated herein by reference as a Finding of Fact as if set forth in full herein.

Based on the foregoing Findings of Fact and the record in this proceeding, the Commission hereby makes the following:

CONCLUSIONS OF LAW

1. The Commission has jurisdiction to consider the Application under SDCL Chapter 49-41B.

2. The Crowned Ridge Wind II Project proposed by Applicant is a wind energy facility as defined in SDCL 49-41B-2(13).

3. Applicant's permit Application, as amended and supplemented through the proceedings in this matter, complies with the applicable requirements of SDCL Chapter 49-41 B and ARSD Chapter 20:10:22.

4. The Commission concludes that it possesses the authority under SDCL 49-41B-25 to impose conditions on the construction, operation, and maintenance of the Project, that the Conditions set forth in the attached Permit Conditions are supported by the record, are reasonable, and will help ensure that the Project will meet the standards established for approval of a construction permit for the Project set forth in SDCL 49-41B-22 and that the Permit Conditions are hereby adopted.

5. The Commission needs no other information to assess the impact of the proposed facility or to determine if Crowned Ridge II has met its burden of proof.

6. The Commission satisfied the hearing and notice requirement in SDCL 49-41B.

7. Applicant satisfied the applicable notice requirements in SDCL 49-41B.

8. All other applicable procedural requirements in South Dakota Codified Law Chapter 49-41B have been satisfied.

9. Applicant has demonstrated that the proposed facility will comply with all applicable laws and rules.

10. When considered with all Permit Conditions, Applicant has demonstrated that the facility will not pose a threat of serious injury to the environment nor to the social and economic condition of inhabitants or expected inhabitants in the siting area.

11. When considered with all Permit Conditions, Applicant has demonstrated that the facility will not substantially impair the health, safety or welfare of the inhabitants.

12. When considered with all Permit Conditions, Applicant has demonstrated that the facility will not unduly interfere with the orderly development of the region with due consideration having been given the views of governing bodies of affected local units of government.

13. Applicant must comply with the applicable Deuel County, Grant County, and Codington County ordinances.

14. The standard of proof is by the preponderance of evidence. Applicant has met its burden of proof imposed by SDCL 49-41B-22 for issuance of the permit to construct by the preponderance of the evidence and is entitled to a permit to construct as provided in SDCL 49-41B-25.

15. Based on the preponderance of the evidence presented to the Commission, the Commission concludes that all of the requirements of SDCL 49-41B-22 have been satisfied.

16. The transfer of the Facility Permit to Northern States Power Company (NSP) prior to the commercial operations is hereby approved. Crowned Ridge II shall file a notice within 5 business days after the transfer to NSP.

17. The Commission thus concludes that the Application should be granted and a facility permit should be issued for the Project for the reasons stated in these Findings of Fact and Conclusions of Law. The Commission grants the permit to construct requested in the Application, as amended, subject to the Permit Conditions, and the Stipulation.

It is therefore

ORDERED, that a permit to construct the Crowned Ridge Wind II Project is granted to Crowned Ridge Wind II, LLC for the construction and operation of the Project. It is further

ORDERED, that Applicant shall comply with all of the attached Permit Conditions, which are incorporated by reference into this Order the same as if they had been set forth in their entirety herein.

PROPOSED PERMIT CONDITIONS

1. Applicant will obtain all governmental permits which reasonably may be required by any township, county, state agency, or federal agency, or any other governmental unit for construction and operation activity of the Project prior to engaging in the particular activity covered by that permit. Applicant shall file an affidavit with the Commission attesting that all permits were properly obtained prior to commercial operation.

2. Applicant shall (1) construct, operate, and maintain the Project in a manner consistent with descriptions in the Application, (2) Application supplements and corrections, (3) commitments made by Applicant in the Application and responses to data requests, (4) the Final Decision and Order Granting Permit to Construct Facility, and attached Permit Conditions (the "Permit"), (5) all applicable permits issued by a federal, state, or local agency with jurisdiction over the Project, and (6) evidence presented by Applicant at the evidentiary hearing.

3. Applicant agrees that the Commission's complaint process as set forth in ARSD Chapter 20:10:01 shall be available to landowners and other persons sustaining or threatened with damage as the result of Applicant's failure to abide by the conditions of the Permit or otherwise having standing to seek enforcement of the conditions of the Permit. Participating landowners may use the complaint process free from retribution or consequence regardless of any private easement term to the contrary.

4. At least 14 days prior to commencement of construction, Applicant shall provide each participating and non-participating landowner in the Project Area, using the addresses designated to receive the property tax bill sent by the county treasurer, with the following information:

   a) A copy of the Permit;

   b) Detailed safety information describing:

      i. Reasonable safety precautions for existing activities on or near the Project;

      ii. Known activities or uses that are presently prohibited near the Project; and

      iii. Other known potential dangers or limitations near the Project;

   c) Construction/maintenance damage compensation plans and procedures (only to participating landowners);

   d) The Commission's address, website, and phone number;

   e) Contact person for Applicant, including name, e-mail address, and phone number.

5. In order to ensure compliance with the terms and conditions of this Permit pursuant to SDCL 49-41B-33, it is necessary for the enforcement of this Order that all employees, contractors, and agents of Applicant involved in this Project shall be made aware of the terms and conditions of this Permit prior to the start of construction.

6. Except as otherwise provided in the Permit Conditions, Applicant shall comply with all

mitigation measures set forth in the Application and Applicant's commitments in its responses to data requests, and Applicant exhibits and testimony at the evidentiary hearing. Material modifications to the mitigation measures shall be subject to prior approval of the Commission.

7. Applicant will negotiate road use agreements with Deuel, Codington, and Grant Counties and all affected townships, if required. Applicant will comply with such road use agreements. When using haul roads specified in applicable road use agreements, Applicant shall take appropriate action to mitigate wind-blown particles created throughout the construction process, including implementation of dust control measures such as road watering, covering of open haul trucks when transporting material subject to being windblown, and the removal of any soils or mud deposits by construction equipment when necessary.

8. In accordance with applicable road use agreements or applicable law, Applicant shall comply with the following conditions regarding road protection:

   a) Applicant shall acquire all necessary permits authorizing the crossing of federal, state, county, and township roads.

   b) Applicant shall coordinate road closures with federal, state, and local governments and emergency responders.

   c) Applicant shall implement a regular program of road maintenance and repair through the active construction period to keep paved and gravel roads in an acceptable condition for residents and the public.

   d) After construction, Applicant shall repair and restore deteriorated roads resulting from construction traffic or compensate governmental entities for their repair and restoration of deteriorated roads, such that the roads are returned to their preconstruction condition.

   e) Within 180 days of completing construction and reclamation of the Project, Applicant shall submit documentation to the Commission identifying that the roads were repaired in accordance with Condition 8 and to the satisfaction of affected townships and county. If the townships or county will not provide such documentation, then Applicant shall provide a report to the Commission on the outstanding road repair issues and how those issues have been or will be resolved.

   f) Privately owned areas used as temporary roads or crane paths during construction will be restored to their preconstruction condition, except as otherwise requested or agreed to by the landowner.

   g) Should Applicant need to widen any existing roadways during construction of the Project, Applicant shall return the roadways back to original width after completion of the Project, unless otherwise agreed upon with the federal, state, county, or township entities, or the landowner.

9. Applicant shall develop a Temporary Traffic Control Plan and provide signage, vehicle lighting, and/or flagging that identifies road closures and disturbances resulting from the Project in accordance with the most recent edition of the Manual on Uniform Traffic Control Devices as published by the Federal Highway Administration. The Temporary Traffic Control Plan shall be filed with the Commission prior to the start of construction.

10. Applicant shall promptly report to the Commission the presence of any critical habitat of threatened or endangered species in the Project Area that Applicant becomes aware of and that was not previously reported to the Commission.

11. Applicant agrees to avoid direct impacts to cultural resources that are unevaluated, eligible for, or listed in the National Register of Historic Places (NRHP). When a NRHP unevaluated, eligible, or listed resource cannot be avoided, Applicant shall notify the South Dakota State Historic Preservation Office (SHPO) and the Commission prior to excavation of the area of the reasons that complete avoidance cannot be achieved in order to coordinate minimization and/or treatment measures.

12. Prior to the commencement of construction, Applicant agrees to develop an unanticipated discovery plan for cultural resources and comply with SDCL 34-27-25, 34- 27-26, and 34-27-28 for the discovery of human remains.

13. Applicant shall file any amendments to the Level III Archaeological survey with the Commission and provide a copy of the survey to the SHPO prior to commercial operation. The survey report may contain confidential information and all confidential portions of the survey report shall be filed as confidential and not for public disclosure. If any potential adverse impacts to NRHP unevaluated, listed, or eligible cultural resources are identified in additional surveys, Applicant shall file with the Commission a report describing the SHPO-approved planned measures to ameliorate those impacts.

14. Applicant shall provide the Stormwater Pollution Prevention Plan (SWPPP) to the Commission when Applicant has a final design for the Project. The SWPPP will outline the water and soil conservation practices that will be used during construction to prevent or minimize erosion and sedimentation and be in a form consistent with the South Dakota Department of Environment and Natural Resources guidelines for such plans. The SWPPP will be completed before submittal of an application for a National Pollutant Discharge Elimination System (NPDES) general permit for construction activities. All contractors to be engaged in ground disturbing activities shall be given a copy of the SWPPP and the requirements shall be reviewed with them by Applicant prior to the start of construction.

15. Applicant shall repair and restore areas disturbed by the construction or maintenance of the Project. Except as otherwise agreed to by the landowner, restoration shall include the replacement of the original pre-construction topsoil or equivalent quality topsoil to its original elevation, contour, and compaction and re-establishment of original vegetation as close thereto as reasonably practical. In order to facilitate compliance with this Permit Condition, Applicant shall:

    a) Strip the topsoil to the actual depth of the topsoil, or as otherwise agreed to by the landowner in writing (e-mail is sufficient), in all areas disturbed by the Project; however, with respect to access roads, Applicant may remove less than the actual depth of the topsoil to ensure roads remain low-profile and the contours align with the surrounding area;

    b) Store the topsoil separate from the subsoil in order to prevent mixing of the soil types;

    c) All excess soils generated during the excavation of the turbine foundations shall remain on the same landowner's land, unless the landowner requests, and the landowner agrees otherwise; and

d) When revegetating non-cultivated grasslands, Applicant shall use a seed mix that is recommended by the Natural Resource Conservation Service (NRCS), or other land management agency, unless otherwise agreed upon with the landowner in writing.

16. Applicant shall work closely with landowners or land management agencies, such as the NRCS, to determine a plan to control noxious weeds and Applicant shall implement the plan.

17. Applicant shall stage construction materials in a manner that minimizes the adverse impact to landowners and land users as agreed upon between Applicant and landowner or Applicant and the appropriate federal, state, and/or local government agency. All excess (non-permanent) construction materials and debris shall be removed upon completion of the Project, unless the landowner agrees otherwise.

18. In order to mitigate interference with agricultural operations during and after construction, Applicant shall locate all structures, to the extent feasible and prudent, to minimize adverse impacts and interferences with agricultural operations, shelterbelts, and other land uses or activities. Applicant shall take appropriate precautions to protect livestock and crops during construction. Applicant shall repair all fences and gates removed or damaged during construction or maintenance unless otherwise agreed upon with the landowner or designee. Applicant shall be responsible for the repair of private roads damaged when moving equipment or when obtaining access to the right-of-way.

19. Applicant shall bury the underground collector system at a minimum depth of 48 inches, or deeper if necessary, to ensure the current land use is not impacted.

20. Applicant shall repair or replace all property removed or damaged during all phases of construction, including but not limited to, all fences, gates, and utility, water supply, irrigation, or drainage systems. Applicant shall compensate the owners for damages or losses that cannot be fully remedied by repair or replacement, such as lost productivity and crop and livestock losses. All repair, replacement and/or compensation described above shall be in accordance with the terms and conditions of written agreements between Applicant and affected landowners where such agreements exist.

21. Applicant shall, in the manner described in its written agreement with a landowner, indemnify and hold the landowner harmless for loss, damage, claim, or actions resulting from Applicant's use of the easement, including any damage resulting from any release, except to the extent such loss, damage claim, or action results from the negligence or willful misconduct of the landowner or his employees, agents, contractors, invitees, or other representatives.

22. Applicant may make turbine location adjustments of 250 feet or less from the turbine locations identified at the time the Permit is issued without prior Commission approval, so long as the specified noise and shadow flicker thresholds are not exceeded, cultural resource impacts and documented habitats for listed species are avoided, and wetland impacts are avoided or are in compliance with applicable U.S. Army Corps of Engineers (USACE) regulations. Prior to implementing the turbine location adjustment, Applicant will file in the docket an affidavit demonstrating compliance with the limitations set forth above. Any turbine location adjustment that does not comply with the aforesaid limitations, or turbine model change, shall be considered a "material change," and Applicant shall file a request for approval of the "material change" prior to making the adjustment pursuant to the following approval process:

Applicant will file with the Commission and serve on the official Service List a request for approval of the material change that includes:

- An affidavit describing the proposed turbine location adjustment, the reason for the location adjustment, the reason the location adjustment does not comply with one or more turbine flexibility limitations set forth above, and information regarding compliance with all other applicable requirements; and
- A map showing both the approved location and the proposed location adjustment (in different colors).
- Once received, Commission Staff shall have 10 calendar days within which to request further Commission review of the request
- If no further review is requested, Applicant may proceed with the location adjustment.
- If further review is requested, the Commission will issue a decision on Applicant's request at its next available regularly scheduled Commission meeting, subject to notice requirements, after the request for further review is made by Commission Staff.

23. Applicant may adjust locations and details of access roads, the collector and communications systems, meteorological tower(s), Aircraft Detection Lighting System facilities, the operations and maintenance facility, the Project Substation, and temporary facilities, so long as they are located on land leased for the Project, cultural resources are avoided or mitigated in consultation with the SHPO; documented habitats for listed species are avoided; wetland impacts are avoided or are in compliance with applicable USACE regulations; and all other applicable regulations and requirements are met.

24. If the Project causes interference with radio, television, or any other licensed communication transmitting or receiving equipment, Applicant shall take all appropriate action to minimize any such interference and shall make a good faith effort to restore or provide reception levels equivalent to reception levels in the immediate areas just prior to construction of the Project. This mitigation requirement shall not apply to any dwellings or other structures built after completion of the Project.

25. Applicant will provide Global Positioning System coordinates of structure locations to affected landowners at any time during the life of the Project. Coordinates will be provided in writing to landowners within 30 days of a request.

26. The Crowned Ridge Wind II Project (CRW II), exclusive of all unrelated background noise except for that associated with the pre-existing Crowned Ridge Wind I Project (CRW I), shall not generate a sound pressure level (10-minute equivalent continuous sound level, Leq) of more than 45 dBA as measured within 25 feet of any non-participating residence unless the owner of the residence has signed a waiver, or more than 50 dBA (10-minute equivalent continuous sound level, Leq) within 25 feet of any participating residence unless the owner of the residence has signed a waiver. The Project Owner shall, upon Commission formal request, conduct field surveys and provide monitoring data verifying compliance with specified noise level limits. If the measured wind turbine noise level exceeds a limit set forth above, then the Project Owner shall act in accordance with prudent operating practice to rectify the situation.

If a field survey and monitoring data is requested by the Commission, the Project Owner shall submit the test protocol to the Commission prior to conducting the survey and sound monitoring for approval. The test protocol shall include and be implemented as follows:

a) The post-construction monitoring survey shall be conducted following applicable American National Standard Institute (ANSI) methods.

b) Sound levels shall be measured continuously for 14 days in an effort to capture a sufficient quantity of valid readings meeting the wind conditions delineated below in subpart (e). A sufficient quantity shall be defined as 0.5% of the total number of samples, or a minimum of 10 for a 14-day measurement period. As a precaution against the possibility that a sufficient number of valid readings are not automatically recorded during the chosen 14-day sampling period, 10 on/off tests shall be carried out during the survey period when both the CRW II and CRW I Projects are operating at full power production irrespective of the ground level wind speed. For the on/off tests, all units owned by CRW II and CRW I within at least 1 mile of the measurement position shall be shut down for a 10-minute period synchronized with the monitor's clocks (starting, for example, at the top of the hour or 10 minutes after, 20 minutes after, etc.) with the understanding that the Applicant may request Commission Staff to facilitate the curtailment of any CRW I turbines, and Commission Staff shall facilitate the coordination between CRW II and CRW I on any curtailment. The background level measured during the shutdown interval can then be subtracted from the average of the levels measured immediately before and after it to determine the Project-only sound level. The results from these tests may be used to make up for any shortfall in collecting 10 samples measured when the ground level wind speed is less than or equal to 5 m/s.

c) Measurements shall be conducted at a select number of non-participating and participating residences with the highest expected noise levels and/or at specific residences identified in the Commission's formal request. At least 6 measurement locations total shall be selected.

d) Measurements shall be conducted using sound level meters meeting ANSI Type 1 specifications. An anemometer shall be placed within 20 feet of each microphone, and at a height of approximately 2 meters above the ground.

e) The measurement data shall be analyzed as follows:

i. At a minimum, the closest five wind turbines associated with the CRW II and CRW I Projects will be operating for evaluation periods and when at least the closest wind turbine is operating at a condition at full (within one decibel of maximum sound power levels) acoustic emissions.

ii. Discard those samples measured when the 10-minute average ground wind speed is greater than 5 m/s.

iii. Discard those samples measured during periods with precipitation.

iv. If measured (total) sound levels exceed the sound level limits, determine Project-only sound levels by removing transient background noise (i.e. occasional traffic, activities of residents, farming activities, and wind gusts) based upon audio recordings, excessive wind gusts, personal observations, and/or comparison of sound level metrics.

v. If measured (total) sound levels exceed the sound level limits, determine Project-only sound levels by removing, continuous background noise. This approach requires wind turbine shut-downs, where the background noise is measured directly. The background sound level shall be measured with all turbines within at least 1 mile of the measurement location temporarily shut down. This would include turbines that are part of the CRW I Project for measurement positions in the northern part of the CRW II Project, with the understanding that the Applicant may request Commission Staff to facilitate the curtailment of any CRW I turbines, and Commission Staff shall facilitate the

coordination between CRW II and CRW I on any curtailment. Background noise levels will be subtracted from total noise levels measured during these wind conditions to calculate turbine-only noise levels.

vi. As necessary, review of the frequency spectra of potential turbine-only samples to identify and remove outliers (spectral shape clearly differing from those samples measured under very low (less than 2 m/s) ground wind conditions, which are the samples most representative of turbine- only noise).

f) Compare the resulting turbine-only noise levels to the 45 and 50 dBA limits. Compliance shall be demonstrated if all samples are less than the limits.

27. Applicant agrees to use turbine locations CRII-94, CRII-97, CRII-134, and CRII-Alt 6 as primary turbines and relegate turbine locations CRII-13, CRII-72, CRII-77, and CRII-Alt 5 to alternative status. If during construction at an alternative turbine, Applicant determines that the location is not suitable for a turbine due to geotechnical, cultural, environmental issues or other constructability issues, Applicant shall file an affidavit with the Commission setting forth why the alternative turbine cannot be used and identifying which primary turbine will be used. If there is a dispute over the use of a primary turbine, Applicant and Commission Staff shall meet and attempt to resolve the dispute within 10 business days of the filing of the affidavit. If the dispute cannot be resolved within 10 business days, Applicant shall file a request for a material change with the Commission.

28. Applicant shall seek input from local emergency response personnel to properly and effectively coordinate an emergency response plan consistent with local resources and response abilities. Upon completion of construction, a Project operation emergency response plan shall be provided to Commission Staff to make available to the general public on the Commission's website.

29. Applicant agrees to undertake a minimum of two years of independently-conducted post-construction avian and bat mortality monitoring for the Project, and to provide a copy of the report and all further reports to the United States Fish and Wildlife Services, South Dakota Game, Fish & Parks (SD GF&P), and the Commission.

30. Applicant shall file a Bird and Bat Conservation Strategy (BBCS) prior to beginning construction of the Project. The BBCS shall be implemented during construction and operation of the Project.

31. At least 60 days prior to construction on property enrolled as a SD GF&P walk-in area, Applicant shall contact the SD GF&P to coordinate public access to the walk-in area that will be temporarily disrupted due to construction activities.

32. If the Project is decommissioned, Applicant shall comply with Section 21 of the Application and the decommissioning plan set forth in Appendix N of the Application. The Commission shall be notified prior to the commencement of any decommissioning activities at the project.

33. If Applicant is purchased by Northern States Power Company, doing business as Xcel Energy, as stated in Sections 1.0 and 3.0 of the Application, Xcel Energy will assume financial responsibility for decommissioning and provide funding for the decommissioning and removal of the Project. As a regulated electric utility, the projected financial cost of decommissioning will be reviewed when Xcel Energy requests recovery of the Project

investment and associated decommissioning cost from customers in a rate proceeding. The Commission may review and adjust the Project decommissioning cost recovered from customers in subsequent Xcel Energy rate proceedings using the most current information available regarding decommissioning.

In the event Xcel Energy does not purchase CRW II, at least 30 days prior to commencement of commercial operation, Applicant shall file an escrow agreement with the Commission for Commission approval that provides a decommissioning escrow account (the "Decommissioning Funding Account"). The escrow agreement shall incorporate the following requirements:

a) The escrow account shall be funded by the Applicant annually at a rate of $5,000 per turbine per year for the first 30 years, commencing no later than the commercial operation date.

b) Beginning in year ten following commercial operation of the Project and each fifth year thereafter, the turbine owner shall submit to the Commission an estimated decommissioning date, if established, and estimated decommissioning costs and salvage values. Based on the verification of the information in the filing the Applicant may request and the Commission may determine that funds in escrow are sufficient to cover the costs of decommissioning and that reduced, or no additional deposits are required. The Commission also may determine that additional funding is required and may require additional funding equal to the estimated amount needed for decommissioning.

c) All revenues earned by the Decommissioning Funding Account shall remain in the Decommissioning Account until such funds are used for decommissioning of the facility or are returned pursuant to Permit Condition 33(i) or Condition 33(j).

d) A statement of the Decommissioning Funding Account shall be provided annually to the Commission and become a public record in this docket.

e) The escrow account obligations will be those of CRW II and the escrow agreement shall include terms providing that the agreement binds CRW II's successors, transferees, and assigns. A sale of Project assets shall include the associated Permit that requires Commission approval per SDCL §49-41B-29.

f) The escrow account agent shall be a South Dakota chartered state bank or a nationally chartered bank with an office located in South Dakota.

g) The escrow agreement shall be subject to the laws of South Dakota and any disputes regarding the agreement shall be subject to venue in South Dakota.

h) To minimize the risk that the escrow account would be subject to foreclosure, lien, judgment, or bankruptcy, the escrow agreement will be structured to reflect the following factors:

i. That CRW II agreed to the creation of the escrow account;

ii. CRW II exercises no (or the least amount possible of) control over the escrow;

iii. The initial source of the escrow account;

iv. The nature of the funds deposited into the escrow account;

v. The recipient of its remainder following the completion of decommissioning activities (if any);

vi. The target of all its benefit; and

vii. The purpose and its creation.

i) Account funds are to be paid to the Project owner at the time of decommissioning, and shall be paid out as decommissioning costs are incurred and paid.

j) If the Project owner fails to execute the decommissioning requirement found in this section of the Permit Conditions, the account shall be payable to the landowner who owns the land on which associated Project facilities are located as the landowner incurs and pays decommissioning costs.

34. The Project shall be equipped with an operating Aircraft Detection Lighting System approved by the Federal Aviation Administration (FAA) that will be operated in accordance with the applicable FAA requirements starting with the commercial operation date and for the life of the Project, subject to normal maintenance and forced outage.

35. Shadow flicker at residences shall not exceed 30 hours per year unless the owner of the residence has signed a waiver. Prior to construction, Applicant shall obtain and file with the Commission a waiver for any occupied structure which will experience more than thirty hours of shadow flicker per year. If no waiver is obtained, Applicant shall file a mitigation plan with the Commission prior to construction and obtain Commission approval of the mitigation plan.

36. Applicant will use two methods to detect icing conditions on turbine blades: (1) sensors that will detect when blades become imbalanced or create vibration due to ice accumulation; and (2) meteorological data from on-site permanent meteorological tower(s), on-site anemometers, and other relevant meteorological sources that will be used to determine if ice accumulation is occurring. These control systems will either automatically shut down the turbine(s) in icing conditions (per the sensors) or Applicant will manually shut down turbine(s) if icing conditions are identified (using meteorological data). Turbines will not return to normal operation until the control systems no longer detect an imbalance or when weather conditions either remove icing on the blades or indicate icing is no longer a concern. Applicant will pay for any documented property damage caused by ice thrown from a turbine.

37. Turbines shall be set back at least 1.1 times the tip height, with a minimum set back distance of 500 feet, from any surrounding property line. However, if the owner of the wind turbine tower has a written agreement with an adjacent land owner allowing the placement of the tower closer to the property line, the tower may be placed closer to the property line shared with that adjacent land owner.

38. Applicant shall implement the avoidance, minimization, and mitigation measures identified as follows for Traditional Cultural Properties (TCPs):

a) Implement standard avoidance or resource protection practices (e.g., barrier fencing, contractor training) for TCPs, where feasible, in collaboration with the Sisseton-Wahpeton Oyate, Yankton Sioux, Rosebud Sioux and Spirit Lake Tribal Historic Preservation Officers (THPOs) and Applicant;

b) Make reasonable efforts to identify participating landowners who may be willing to work with the tribes on site preservation, accessibility, and protection of TCPs on their property;

c) Conduct site revisits prior to construction;

d) Help facilitate post-construction site revisits for tribes with the landowners; and

e) Identify and implement education/interpretation opportunities regarding tribal resource preservation and/or Native American perspectives which may include sensitivity training when needed.

39. For purposes of this Project and the commitments herein, “residences,” “business(es),” “structures,” “schools,” “churches,” “cemeteries,” and “public buildings” shall include only those that are in existence and in use as of the date of the Commission’s order issuing a permit.

40. Applicant shall construct and operate the Project in accordance with the terms and conditions of the Permit and in accordance with applicable laws. Failure to do so may lead to the revocation or suspension of the Permit pursuant to SDCL 49-41B-33. If an individual turbine is constructed or operated in a materially different manner than what is approved in the terms and conditions of the Permit then removal of the turbine may be ordered by the Commission unless an exemption is obtained from the Commission pursuant to Condition 41.

41. The terms and conditions of the Permit shall be made a uniform condition of construction and operation, subject only to an affirmative written request for an exemption addressed to the Commission. A request for an exemption shall clearly state which particular condition should not be applied and the reason for the requested exemption. The Commission shall evaluate such requests on a case-by-case basis, which evaluation shall be completed within 60 days unless exigent circumstances require action sooner.

42. Applicant shall provide a copy of the Commission’s Final Decision and Order Granting Permit to Construct Facility; Notice of Entry and attached Permit Conditions in this docket to the affected county, townships, and municipalities in the Project Area.

43. At least 30 days prior to the commencement of construction work in the field for the Project, Applicant will provide to Commission Staff the following information:

a) the most current preconstruction design, layout, and plans, including the turbine model;

b) a sound level analysis showing compliance with the applicable sound level requirements;

c) a shadow flicker analysis showing the anticipated shadow flicker levels will not exceed applicable requirements per year at any residence, absent a waiver agreement executed by the residence owner(s);

d) should Applicant decide at a later point to use a different turbine model, it shall provide the information required in parts a-c above. Applicant shall also demonstrate that in selecting locations for the other turbines, it considered how to

reduce impacts on non-participating landowners; and

e) additional Project preconstruction information as Commission Staff requests.

44. At least 30 days prior to commencement of construction, Applicant shall submit the identity and qualifications of a public liaison officer to the Commission for approval to facilitate the exchange of information among Applicant, including its contractors, landowners, local communities, and residents, and to facilitate prompt resolution of complaints and problems that may develop for landowners, local communities, and residents as a result of the Project. Applicant shall file with the Commission its proposed public liaison officer's credentials for approval by the Commission prior to the commencement of construction. After the public liaison officer has been approved by the Commission, the public liaison officer may not be removed by Applicant without the approval of the Commission. The public liaison officer shall be afforded regular access to Applicant's on-site Project manager, its executive Project manager, and to the contractors' on-site managers and shall be available at all times to Commission Staff via mobile phone to respond to complaints and concerns communicated to the Commission Staff by concerned landowners and others. Within 10 working days of when Applicant's public liaison officer has been appointed and approved, Applicant shall provide contact information for him/her to all landowners in the Project Area and to law enforcement agencies and local governments in the vicinity of the Project. The public liaison officer's contact information shall be provided to landowners in each subsequent written communication with them. If the Commission determines that the public liaison officer has not been adequately performing the duties set forth for the position in this Order, the Commission may, upon notice to Applicant and the public liaison officer, take action to remove the public liaison officer. The public liaison's services shall terminate after the Project completes final reclamation of disturbed land, unless the appointment is terminated earlier than set forth above, or extended, by order of the Commission.

45. Prior to the construction of the Project, Applicant will notify public safety agencies by providing a schedule and the location of work to be performed within their jurisdiction. The agencies contacted will include the South Dakota Department of Public Safety, the sheriffs of Codington County, Deuel County, and Grant County, and the Codington County, Deuel County, and Grant County Offices of Emergency Management.

46. Within 90 days after the Project's commercial operation date, Applicant shall submit a report to the Commission that provides the following information:

a) as-built location of structures and facilities, including drawings clearly showing compliance with the setbacks required by state and local governments set forth in Table 13.1 of the Application;

b) ArcGIS shapefiles of the final turbine and facility layout;

c) the status of remedial activities for road damage, landowner property damage, crop damage, environmental damage, or any other damage resulting from Project construction activities; and,

d) a summary of any known landowner complaints and Applicant's plan for resolving those complaints.

47. Applicant shall establish a procedure for preventing whooping crane collisions with turbines during operations by establishing and implementing formal plans for monitoring

the project site and surrounding area for whooping cranes during spring and fall migration periods throughout the operational life of the project and shutting down turbines and/or construction activities within 2 miles of whooping crane sightings. The SD GF&P will be consulted on the procedure to minimize impacts to whooping cranes.

BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF SOUTH DAKOTA

IN THE MATTER OF THE APPLICATION BY CROWNED RIDGE WIND II, LLC FOR A PERMIT OF A WIND ENERGY FACILITY IN DEUEL, GRANT AND CODINGTON COUNTIES	)))))	EL19-027 **CERTIFICATE OF SERVICE**

I hereby certify that true and correct copies of Crowned Ridge Wind II, LLC Post-Hearing Brief and Proposed Findings of Fact and Conclusions of Law were served electronically on the parties listed below on the 2nd day of March, 2020, addressed to:

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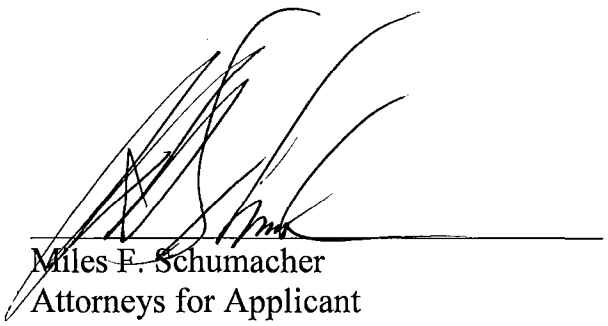
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BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF SOUTH DAKOTA

IN THE MATTER OF THE APPLICATION OF CROWNED RIDGE WIND II, LLC FOR A PERMIT OF A WIND ENERGY FACILITY IN DEUEL, GRANT AND CODINGTON COUNTIES	**STAFF'S POST HEARING BRIEF** **EL19-027**

The Commission Staff, by and through its attorneys of record, hereby files this post-hearing brief in the above-captioned siting proceeding:

I. Preliminary Statement.

For purposes of this brief, the South Dakota Public Utilities Commission shall be referred to as the "Commission"; Commission Staff is referred to as "Staff"; Crowned Ridge Wind II, LLC is referred to as "Crowned Ridge" or "Applicant." Reference to the transcript of the Evidentiary Hearing will be "EH", followed by the appropriate page number, and prefiled testimony that was accepted into the record will be referred to by its exhibit and page number.

II. Jurisdictional Statement.

The Applicant filed for a permit to construct a wind energy facility. The Commission has jurisdiction over siting permits for wind energy facilities pursuant to SDCL Chapter 49-41B. For applications received after July 1, 2019, SDCL 49-41B-25 requires the Commission to make "complete findings" in rendering a decision on whether the permit should be granted, denied, or granted with conditions within nine months of receipt of the initial application for a wind energy facility.

III. Statement of the Case and Facts.

On July 9, 2019, Crowned Ridge filed an application for a siting permit, pursuant to SDCL 49-41B-4, to construct the Crowned Ridge II Wind Farm (Project), a wind energy conversion facility to be located on approximately 60,996-acres of land in Deuel, Grant and Codington Counties, in the townships of Waverly, Kranzburg North, Kranzburg South, Troy, Rome, Goodwin, and Havana, South Dakota. The total installed capacity of the Project would not exceed 301 megawatts (MW) of nameplate capacity. The proposed Project would include up to 132 wind turbine generators, access roads to turbines and associated facilities, underground 34.5-kilovolt (kV) electrical collector lines, underground fiber-optic cables, a 34.5-kV to 230-kV collection substation, two permanent meteorological tower, an operations and maintenance facility, and additional temporary construction areas, including a concrete batch plant. The Project will utilize the Crowned Ridge Wind II 5-mile 230-kV generation tie line and the Crowned Ridge Wind II collector substation to transmit the generation to the dead-end transmission structure adjacent to the Crowned Ridge Wind, LLC project's collector substation and conjoined to the Big Stone South 230-kV Substation, which is owned by Otter Tail Power Company. Applicant has executed a purchase and sale agreement with Northern States Power Company (NSP) to sell NSP the Project and the Facility Permits once constructed. The Project is expected to be completed in 2020.

Pursuant to ARSD 20:10:22:40, the Commission established a deadline of September 9, 2019, for submission of applications for party status. Nine individual landowners timely

submitted applications and were granted party status by the Commission. An Evidentiary Hearing was held February 4-6, 2019.

IV. Statement of the Issues.

The principle issue to be decided in this matter is whether, pursuant to SDCL 49-41B and ARSD 20:10:22, the permit requested by the Applicant for a wind energy facility should be granted, denied, or granted upon such terms, conditions or modifications of the construction, operation or maintenance as the Commission finds appropriate. Additionally, the Commission must determine whether the Applicant has met its burden of proof with respect to each element of SDCL 49-41B-22 for the requested permit.

V. Factors Applicant Must Establish and Burden of Proof.

SDCL 49-41B-22, as in effect July 1, 2019, provides that the Applicant has the burden of proof to establish that:

> (1) The proposed facility will comply with all applicable laws and rules;
> (2) The facility will not pose a threat of serious injury to the environment nor to the social and economic condition of inhabitants or expected inhabitants in the siting area. An application for an electric transmission line, a solar energy facility, or a wind energy facility that holds a conditional use permit from the applicable local units of government is determined not to threaten the social and economic condition of inhabitants or expected inhabitants in the siting area;
> (3) The facility will not substantially impair the health, safety or welfare of the inhabitants; and
> (4) The facility will not unduly interfere with the orderly development of the region with due consideration having been given the views of governing bodies of affected local units of government. An applicant for an electric transmission line, a solar energy facility, or a wind energy facility that holds a conditional use permit from the applicable local units of government is in compliance with this subdivision.

In addition, the administrative rules state that the Applicant "has the burden of going forward with presentation of evidence…" ARSD 20:10:01:15.01. Therefore, the next question is: What standard shall be applied to determine if the Applicant has met its burden of proof? The general standard of proof for administrative hearings is by preponderance, or the greater weight of the evidence. *In re Setliff*, 2002 SD 58, ¶13, 645 NW2d 601, 605. It is erroneous to require a showing by clear and convincing evidence. *Dillinghan v. North Carolina Dept. of Human Resources*, 132 N.C. App. 704, 513 S.E.2d 823 (1999). "Preponderance of the evidence is defined as the greater weight of evidence." *Pieper v. Pieper*, 2013 SD 98, ¶22, 841 NW2d 787 (citation omitted). Black's Law Dictionary defines preponderance of the evidence as:

> The greater weight of the evidence, not necessarily established by the greater number of witnesses testifying to a fact but by evidence that has the most convincing force; superior evidentiary weight that, though not sufficient to free the mind wholly from all reasonable doubt, is still sufficient to incline a fair and impartial mind to one side of the issue rather than the other. This is the burden of proof in most civil trials, in which the jury is instructed to find for the party that, on the whole, has the stronger evidence, however slight the edge may be.

Black's Law Dictionary (10th ed. 2014).

The South Dakota Legislature has clearly indicated that it intended for the Commission to very carefully and thoroughly scrutinize applications for siting permits. This is evidenced by its enactment of SDCL 49-41B-12, which provides for a deposit and a filing fee to investigate, review, process, and notice the application. Because the Legislature established a fee to support the investigation into permit applications, it is apparent that the Legislature intended for an extensive and complete review of the application to be conducted. It would not have done so if it did not expect this to be a significant investigation of the required factors. Such a high bar

protects the land and the citizens of this state, as well as adds legitimacy to all permit applications that are granted.

VI. Argument and Analysis.

A. Property Value

Applicant and Staff each called a witness to testify on the Project's potential effects on property value. Michael MaRous testified on behalf of Applicant. David Lawrence testified for Staff. Both witnesses are experts in the area of appraisal and property value. Both ultimately concluded that there was no evidence that the Project would have a negative effect on property value.

David Lawrence analyzed sixteen sale transactions of rural residences in proximity to a wind turbine.[1] Mr. Lawrence testified that he found one property sale that was negatively impacted by the planned wind farm.[2] However, the discovery of this one negatively impacted property sale did not change his overall opinion that "the selling prices of rural residences have not been influenced by the presence of a wind tower, turbine, or project."[3]

At the hearing, Mr. Lawrence testified that the sales data does not support the comments about negative impacts on property value. "It shows that these properties do sell within the range of the market."[4] One property within proximity to a wind farm even sold at six percent appreciation rate.[5]

[1] Exhibit S6, page 2, lines 6-7.
[2] Exhibit S6, generally.
[3] Exhibit S6, Pages 2-3.
[4] EH 494:21-23.
[5] EH 473:19-22.

Both David Lawrence and Michael MaRous testified that there was no evidence of a negative overall impact. No evidence to contradict this conclusion was presented by any of the intervenors. Further, the one sale that showed a possible negative influence was near a planned wind farm, not an operating wind farm. None of the sales near an operating wind farm showed a negative influence. Therefore, the preponderance of the evidence establishes that there is no evidence of a negative impact on property value due to an operating wind farm.

Staff reached out to all parties for suggestions for permit conditions.[6] No party responded with a recommendation or request for a property value condition, nor does the record suggest that one is needed. Ms. Christenson did bring up the concept of a property value guarantee during her cross examination of Mr. Kearney, however, as Mr. Kearney explained in his response, a property value guarantee is neither necessary nor workable.[7]

In addition, because Applicant has secured all necessary conditional use permits, there is a presumption pursuant to SDCL 49-41B-22(2) that the Project will not pose a threat of serious injury to the economic condition of the inhabitants of the siting area.

For these reasons, Staff recommends the Commission find that there is no evidence that the Project will have a significant negative impact on property value in the siting area. Staff recommends there be no permit condition regarding property value.

B. Recommended Noise Limit for Nonparticipants

When considering the proper noise limits to recommend in a proposed permit condition, Staff relies on its expert witness, Mr. David Hessler. For a regulatory noise limit, Mr. Hessler

[6] EH 554:8-13.
[7] EH 607-608.

recommends a 45-dBA, project-only, noise limit for nonparticipating residences. At the same time, however, Mr. Hessler believes wind energy developers should work to optimize the project layout, to the extent practical, for minimizing noise on nonparticipants. This optimization is captured in Mr. Hessler's ideal design goal of 40-dBA for nonparticipating residences. Mr. Hessler's recommendation for a regulatory noise limit and an ideal design goal have been consistent throughout all recent wind energy facility permit proceedings.

Staff finds that a 45-dBA regulatory noise limit will not substantially impair the health, safety, or welfare of nonparticipants in the project area and works to ensure that all new wind energy facilities are modeled to have expected noise levels at or below a 45-dBA regulatory limit for nonparticipants. Staff also reviews the proposed turbine layout in relation to nonparticipating residences in order to determine if further optimization by the wind farm can reasonably be completed to gain additional reduction in noise levels for nonparticipants. If Staff finds that turbine layout modifications can reasonably be completed to further reduce noise levels for non-participants, Staff will advocate for those changes before the Commission. For Crowned Ridge Wind II, the number of residences in the project area did not allow for further optimization of noise, beyond those recommended by Mr. Hessler, absent major changes to the project.

Certain wind farm locations in South Dakota with few residences may allow for the further optimization of noise levels below a 45-dBA regulatory limit for nonparticipants and, therefore, a one-size fits all noise limit is not the best public policy for minimizing noise on nonparticipating residences. For example, in the case of Prevailing Wind Park, Staff found that the project could reasonably achieve expected noise levels of 40-dBA at nonparticipants and then advocated for a 40-dBA permit limit to further minimize noise for nonparticipants to their benefit. Even if a wind farm is proposed to have noise levels at all nonparticipants of 40-dBA or less, Staff will review

the project layout in order to determine if the project can further reduce the expected noise levels for nonparticipants through additional turbine layout optimization.

In short, Staff finds that a 45-dBA permit limit for nonparticipants will not substantially impair the health, safety, or welfare of nonparticipants. However, Staff will also continue to challenge wind energy developers to optimize the layout for minimizing the expected noise levels at nonparticipating residences to the extent practical. Should Staff's efforts to minimize the expected noise levels below a 45-dBA regulatory limit for nonparticipants at one project be used as a precedent for a state noise regulation to be applied in all future wind energy facility cases, Staff will then recommend a 45-dBA regulatory limit for all projects based solely on health and safety impacts and not recommend further project-specific layout optimization to reduce the likelihood of noise complaints. This path, if taken, could leave some nonparticipants with higher noise levels than what a wind project could reasonably achieve.

C. Staff's Recommended Shadow Flicker Limit

In proposed permit condition 35, as found in Exhibit S7, Staff recommends the Commission limit shadow flicker to 30 hours per year unless the owner of the residence has signed a waiver. During the evidentiary hearing, intervenors questioned the reasonableness of this limit and support for this limit. Staff witness Mr. Darren Kearney, in response, testified that "[f]or shadow flicker, we understand that it's a nuisance issue, and Staff defers to the counties, as we feel that they're best suited to address that concern based on the feedback that they hear at the local level." EH 568: 4-7.

The foundation Staff used for the recommended shadow flicker limit in this case is consistent with what Staff used for recommended shadow flicker limits in past wind farm cases.

That foundation is simply to look to see what the county ordinance states in order to determine what the county has found to be acceptable. For Crowned Ridge Wind II, all three counties that the Project will be sited in limits shadow flicker to 30 hours per year and, thus, proposed permit condition 35 reflects this.

One may ask, why does Staff defer to the counties on the shadow flicker concern? The answer is that shadow flicker can be a short-duration nuisance, but it is not a health concern. Staff believes that counties are best positioned to address nuisance matters at the local level and, therefore, defers to them. Further, Staff is not aware of any scientific studies demonstrating that shadow flicker below 30 hours per year, or above for that matter, will pose a threat to the health, safety, or welfare of the inhabitants. Without evidence to support a lower shadow flicker limit, Staff has no basis for advancing a shadow flicker limit lower than the limit required in county ordinance.

Specific to Crowned Ridge Wind II, Staff is not aware of any evidence in the record to support a shadow flicker limit less than what the counties require or the addition of a daily shadow flicker limit. Therefore, Staff continues to support proposed permit condition 35.

D. Recommended Change to Proposed Permit Condition 29 (Post-Construction Avian Mortality Monitoring)

In proposed permit condition 29, as found in Exhibit S7, Staff recommended that the Commission require Crowned Ridge Wind II to undertake a minimum of two years of independently conducted post-construction avian and bat mortality monitoring. Since the time of the evidentiary hearing, South Dakota Game, Fish, and Parks (SD GF&P) worked with Crowned Ridge Wind II, Xcel Energy, and Western Ecosystems Technology (WEST) Inc. to collaboratively

fund an additional component of the grouse lek study being conducted for Crowned Ridge I in lieu of completing the second year of avian and bat mortality monitoring. Based on this, Staff now recommends that proposed permit condition 29 to be revised and state as follows:

> 29. Applicant agrees to undertake one year of independently-conducted post-construction avian and bat mortality monitoring for the Project, and to provide a copy of the report and all further reports to the United States Fish and Wildlife Services, South Dakota Game, Fish and Parks, and the Commission. The Applicant also agrees to fund a federal grant match for the SD GF&P State Wildlife Action Plan designed to facilitate an additional component for the grouse study on avian predator interactions with wind projects. This particular study component must be consistent with SD GF&P State Wildlife Action Plan priorities and must be designed to inform the scientific literature regarding potential mechanisms that may explain grouse and wind project interactions.

A letter from SD GF&P in support of this recommended change to proposed permit condition 29 is provided as Attachment A.

VII. Conclusion.

After the introduction of evidence at the evidentiary hearing, the question before the Commission is: whether it is more likely than not that the Applicant has satisfied each requirement of SDCL 49-41B-22 by a preponderance of the evidence.

With the inclusion of the conditions set forth in this brief, the Project will not pose a significant threat to the health, safety, welfare, or orderly development of the region or the environment. Therefore, Staff recommends approval subject to the conditions detailed in Exhibit S7, as well as the revisions to Condition 29 regarding post-construction avian mortality monitoring and the addition of the grouse lek monitoring condition in the February 25, 2020 letter from Staff.

Respectfully submitted this 2nd day of March 2020.



Amanda Reiss
Kristen Edwards
Staff Attorneys
South Dakota Public Utilities Commission
500 East Capitol Avenue
Pierre, SD 57501
Phone (605)773-3201

Attachment A

SOUTH DAKOTA DEPARTMENT OF
GAME, FISH AND PARKS
523 EAST CAPITOL AVENUE | PIERRE, SD 57501

February 27, 2020

Darren Kearny
South Dakota Public Utilities Commission
500 E Capitol Ave
Pierre, SD 57501

RE: Substitution of Raptor Study for Second Year of Post Construction Mortality Monitoring at Crowned Ridge II

Dear Darren,

The South Dakota Department of Game, Fish and Parks (GFP) has been in discussions with Crowned Ridge Wind II (CR II) an indirect, wholly owned subsidiary of NextEra Energy Resources, LLC, Xcel Energy and Western Ecosystems Technology (WEST) Inc. to collaboratively fund and complete a 3-year, post-construction raptor study at Crowned Ridge I and II. This project is separate from, but related to, the current grouse telemetry study. These complementary projects have been designed to address impacts of wind energy development on the ecosystem, rather than focusing solely on an individual species. Game, Fish and Parks believes pursuing this additional project would be a wise use of project funds.

GFP supports the revision of stipulated condition no. 29 for CR II to only require the owner/operator of CR II (Xcel Energy) to conduct 1 year of post construction mortality monitoring to assess predictions of wildlife fatality risk at CR II, which is consistent with the voluntary US Fish and Wildlife Service Land-based Wind Energy Guidelines. Xcel Energy has agreed that the funds set aside for the 2nd year of post-construction mortality monitoring would then be reallocated to fund a three-year raptor study at CR I and CR II.

For additional background, GF P is working with CR II and Xcel Energy to pursue funding for this project with a State Wildlife Grant. State Wildlife Grants are used to support projects that benefit species of greatest conservation need and that help implement South Dakota's Wildlife Action Plan (https://gfp.sd.gov/wildlife-action-plan/). Through this program, 35% of the project budget must come from non-federal matching funds. Xcel Energy is proposing to re-allocate funding budgeted for the 2nd year of post-construction monitoring at CR II, to be used as the 35% match to fund a 3-year raptor study. The remaining 65% of the project budget would come from a State Wildlife Grant. This research project presents an opportunity for a collaborative partnership between the wind energy industry (Xcel/CR II), GFP and WEST Inc. to address knowledge gaps related to wind and wildlife interactions in South Dakota. We hope that this research will help GFP and wind energy developers to work together to develop future conservation actions in the form of siting recommendations and decisions that may affect raptor populations in South Dakota.

GFP biologists have partnered with biologists from WEST Inc. to develop survey methodology. Annual and final reports will be completed by WEST Inc. and provided to GFP, NextEra and Xcel. GFP staff will also work with WEST Inc. biologists to publish the results of this study in a peer-reviewed journal.

In closing, we support a permit condition to require 1 year of post-construction mortality monitoring at CR II, and to reallocate funding from the 2nd year of post-construction mortality monitoring to be used towards a raptor study.

Please contact me if you have any further questions.

Sincerely,



Hilary Morey
Environmental Review Senior Biologist
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cc: Kimberly Wells (NextEra Energy)
Natalie Gates (USFWS)
Patrick Flowers (Xcel Energy)

BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF SOUTH DAKOTA

IN THE MATTER OF THE APPLICATION BY CROWNED RIDGE WIND II, LLC FOR A PERMIT OF A WIND ENERGY FACILITY IN DEUEL, GRANT AND CODINGTON COUNTIES	)))))	**CERTIFICATE OF SERVICE** **EL19-027**

I hereby certify that true and correct copies of the Staff's Post-Hearing Brief, Attachment A and Certificate of Service were served electronically on the 2nd day of March 2020, addressed to those parties listed on the service list.



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BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF SOUTH DAKOTA

IN THE MATTER OF THE APPLICATION BY CROWNED RIDGE WIND II, LLC FOR A PERMIT OF A WIND ENERGY FACILITY IN GRANT, CODINGTON AND DEUEL COUNTIES	)))))	**Docket EL19-027** **Intervenors Amber Christenson, Allen Robish, and Kristi Mogen** **Post Hearing Brief**

COMES NOW Intervenors, Christenson, Robish and Mogen, and jointly submit their Post-Hearing Brief, including Intervenors' incorporated Findings of Facts and Conclusions of Law, and respectfully request that the Commission deny the pending permit for construction of a Wind Energy Facility for Crowned Ridge Wind II, LLC in Deuel, Grant and Codington counties.

STATEMENT OF THE CASE AND INTRODUCTION

On July 9, 2019, the South Dakota Public Utilities Commission (Commission) received an Application for a Facility Permit (Application) from Crowned Ridge Wind II, LLC (Crowned Ridge or Applicant), a wholly-owned, indirect subsidiary of NextEra Energy Resources, LLC. Crowned Ridge proposes to construct a wind energy conversion facility to be located in Deuel, Grant, and Codington Counties, South Dakota (Project). The Project would be situated within approximately 60,996 acres in the townships of Waverly, Kranzburg North, Kranzburg South, Troy, Rome, Goodwin, and Havana, South Dakota (Project Area). The total installed capacity of the Project would not exceed 301 megawatts (MW) of nameplate capacity. The proposed Project includes up to 132 wind turbine generators, access roads to turbines and associated facilities, underground 34.5-kilovolt (kV) electrical collector lines, underground fiber-optic cable, a 34.5-

kV to 230-kV collection substation, two permanent meteorological towers, and an operations and maintenance facility. The Project will utilize the Crowned Ridge Wind 11 5-mile 230-kV generation tie line and the Crowned Ridge Wind II collector substation to transmit the generation to the dead-end transmission structure adjacent to the Crowned Ridge Wind, LLC project's collector substation and conjoined to the Big Stone South 230-kV Substation, which is owned by Otter Tail Power Company. Applicant has executed a purchase and sale agreement with Northern States Power Company (NSP) to sell NSP the Project and the Facility Permits once constructed. The Project is expected to be completed in 2020. Applicant estimates the total cost of the Project to be $425 million.

On July 11, 2019, the Commission electronically transmitted notice of the filing and the intervention deadline of September 9, 2019, to interested persons and entities on the Commission's PUC Weekly Filings electronic listserv. On July 11, 2019, the Commission issued a Notice of Application: Order for and Notice of Public Input Meeting: Notice of Opportunity to Apply for Party Status. On July 31, 2019, the Commission issued an Order Assessing Filing Fee; Order Authorizing Executive Director to Enter into Consulting Contracts; Order Granting Party Status (Amber Christenson, Kristi Mogen, Allen Robish). On August 26, 2019, the Commission issued an Order Granting Party Status (Garry Ehlebracht, Steven Greber, Mary Greber, Richard Rall, Amy Rall, and Laretta Kranz). On August 26, 2019, a public input meeting was held as scheduled. On September 20, 2019, the Commission issued an Order Granting Motion Establishing Procedural Schedule and an Order Denying Request for Confidentiality. On October 1, 2019, the Commission issued an Order for and Notice of Evidentiary Hearing. On December 2, 2019, the Commission issued an Order Granting Motion to Appear Telephonically. On January 14, 2020, Applicant filed a Motion to Strike. On January 15, 2020, lntervenors filed a

Reply to Motion to Strike Testimonial Excerpts. On January 22, 2020, the Commission issued an Order for and Notice of Motion Hearing. On January 31, 2020, Commission staff filed its Partial Joinder of Motion to Strike. On February 14, 2020, the Commission issued an Order Granting, in part, Motion to Strike

The Commission has jurisdiction over this matter pursuant to SDCL Chapters 1-26, 15-6 and 49-41B and ARSD Chapters 20:10:01 and 20:10:22. The Commission may rely upon any or all of these or other laws of this state in making its determination.

The evidentiary hearing was held as scheduled, beginning on February 4, 2020, and ending on February 6, 2020. At the conclusion of the evidentiary hearing, a briefing schedule and decision date was set by the Commission. As such, Intervenors submit this Post-Hearing Brief and, as lay persons, also seek to hereby incorporate all facts and legal references as proposed findings of facts and conclusions of law, by and on their behalf.

Applicant is seeking a permit from the Commission to build a wind farm in Deuel, Grant and Codington County South Dakota. As the permit Applicant, Applicant shoulders the burden of proof to establish its proposed project satisfies the provisions of SDCL 49-41B-22:

1) The proposed facility will comply with all applicable laws and rules;
2) The facility will not pose a threat of serious injury to the environment nor to the social and economic condition of inhabitants or expected inhabitants in the siting area. An applicant for an electric transmission line, a solar energy facility, or a wind energy facility that holds a conditional use permit from the applicable local units of government is determined not to threaten the social and economic condition of inhabitants or expected inhabitants in the siting area;
3) The facility will not substantially impair the health, safety or welfare of the inhabitants; and
4) The facility will not unduly interfere with the orderly development of the region with due consideration having been given the views of governing bodies of affected local units of government. An applicant for an electric transmission line, a solar energy facility, or a wind energy facility that holds a conditional use permit from the applicable local units of government is in compliance with this subdivision.

Failure to meet the burdens imposed by 49-41B-22 requires a denial.

ARGUMENT

Pursuant to the evidence received at hearing, Crowned Ridge Wind II, LLC (CRWII) has failed to meet its burden. SDCL 49-41B-22 (1). In part, Applicant has completely failed to prove that the Project will comply with the version of the Grant County ordinance that was in effect at the time the CUP was jointly granted to Crowned Ridge Wind I, LLC (CRWI) and Crowned Ridge Wind II, LLC, since such ordinance governs the Conditional Use Permit (CUP). CRWII submitted to the docket Exhibit A19-3, Grant County Ordinance 2016-01C adopted December 28, 2018, effective date of January 28, 2019. The submission was a working copy which shows the changes being proposed to the ordinance after the CUP was issued on December 17, 2018, to CRWII. Intervenor Amber Christenson supplied Exhibit AC-18 which was admitted into the record. Exhibit AC-18 is the Grant County Ordinance, which governs the joint Grant County CUP of CRWI/CRWII.

Christenson questioning Wilhelm regarding the Grant County CUP:

"Q. The date of the approval for the Grant County Conditional Use Permit was December 17, 2018. Do you agree with that date?
A. Yes, I do.

Q. Okay. Now if you would refer to the Applicant Exhibit 19-3, page 1, in the lower left-hand corner…
Q. It's just the county ordinance for Grant County that you submitted…
Q. … In the lower left-hand corner of page 1 of that document would you please read to the Commission the date the Grant County ordinance was adopted.
A. It shows December 28, 2018.
Q. Okay. Thank you. December 28, 2018. That would be 11 days after you received your Conditional Use Permit; correct?
A. That would be correct, that it was officially adopted after we received our permit approval, …
Q. …Now please read to the Commission the date of the – the effective date of the ordinance. …
A. January 28, 2019.

> Q. Okay. So like a month and 10 or 11 days after you received your Conditional Use Permit. So at the time you received approval for your Conditional Use Permit for Crowned Ridge II the prior ordinance was in effect governing that Conditional Use Permit, not the version that's submitted in A19-3; correct?
> A. That would be correct." [Transcript 2/4/2020, page 47, line 14 page 49, line 3.]

Applicant witness Wilhelm goes on to describe the working copy of the Grant County ordinance that was submitted to the docket as Applicant's Exhibit A19-3:

> Applicant witness Wilhelm: …" what we provided is Exhibit A19-3 is the markup version of what the final ordinance came to be. And the providing of this was our means of showing what changed in the ordinance so people could track it, and we were a big part of that process and something that we're proud of. So it's just the redline or marked-up version…" [Transcript 2/4/2020, p53, line 21-p54, line 3] [Exhibit A19-3]

The governing ordinance of the Grant County CRWI/CRWII CUP in regard to Noise says in Section 1211.03, Item 13:

> 13. Noise. Noise level *shall not exceed 50 dBA*, [emphasis added] average A-weighted Sound pressure including constructive interference *at the perimeter of the principal and accessory structures* [emphasis added] of existing off site residences, businesses, and buildings owned and/or maintained by a governmental entity. [Exhibit AC-15, numbered page 15, Item 13] [Exhibit AC-18] [Exhibit A19-3, Item 14]

The governing ordinance for this Grant County CUP, *does not differentiate between participants and non-participants* in regard to Noise; each is provided a sound pressure limit of 50 dBA at the *perimeter of the principle and accessory structures*. (see above) The version of the ordinance, which governs the Applicant's CUP does not allow for waivers.

Applicant failed to provide sound and flicker studies that included all impacted receptors and homes. According to the Letter of Assurance provided in Applicant's Exhibit A1-K , Appendix K—County Conditional Use Permits, the Grant County Letter of Assurance to Crowned Ridge LLC, Item 3, Subset b, Obligation to Meet Requirements:

> "Applicant agrees that the construction and operation of all WES towers will comply with noise and shadow flicker thresholds *exhibited in the application's noise and shadow flicker analysis*." [Exhibit A1-K]

In their application to Grant County for the joint CRWI/CRWII CUP, the Applicant provided a sound study that included accessory structures. [Exhibit AC-19] The sound study included 181 receptors.

Applicant witness Haley testified regarding the sound and flicker studies submitted to this docket and to each of the 3 counties for the CRWII permit hearings for CUPs (Codington and Grant Counties) and a Special Exception Permit (SEP) (Deuel County). Intervenor Ms. Christenson questioning Applicant witness Haley: "Q. In the Grant County Conditional Use Permit Letter of Assurance, which is Exhibit A1-K… Okay. It says on page 11, item 3 --…Oh, sorry. It's subset 3 -- or subset B. I'll just read it to you… "Applicant agrees that the construction and operation of all WES towers will comply with noise and shadow flicker thresholds exhibited in the Application's Noise and Shadow Flicker Analysis." In the studies presented in this docket there are four receptors listed for Grant County. In Exhibit AC-19, which is probably in your folder on the corner there. My late-filed exhibit. A. You said AC-19?...Q. That's the Grant County …sound and flicker report? A. Yep. Q. If you go to page 17 and the following four pages, so a total of five pages, you'll see those are all receptors for Grant County. And I counted 181 receptors in Grant County for that permit. A. Uh-huh. Yes. Q. And, like I say, the sound and flicker -- or the sound study submitted to this docket has four. A. Yes. Q. So how could you possibly be able to know if you're in compliance with the Conditional Use Permit if you're missing 179 receptors for study?...A. This is a report from 2018.Q. Yes. This is your Conditional Use Permit that you have to abide by showing -- showing how the sound profile travels out into the county. But there's no receptors in your PUC sound study showing that. A. This report is

from 2018, and the layout and the ordinance are completely different today than they were when this report was generated. Q. But the governing ordinance for that Conditional Use Permit and the Letter of Assurance that's been submitted to this docket say that you have to abide by these shadow and sound studies that you submitted to Grant County. You understand? A. I think I do." [Transcript 2/4/2020, page 236, lines 1-2, page 237, line 1 – page 238 line 6, line 17 – page 239, line 5], [Exhibits A1-K and AC-19]

Also included in Exhibit AC-19, Appendix J of the Application to Grant County for a Conditional Use Permit, are the Dakota Range turbines added to the sound profile of CRWI/CRWII. However, Dakota Range turbines have not been included in the sound study submitted to this docket, Docket EL19-027. The questions below were posed to Mr. Haley by Ms. Christenson on February 5th to correct his erroneous statement the prior day, when he *thought* Dakota Range turbines *were* included in the sound study of this PUC docket: Applicant attorney Mr. Murphy: "Q. Yesterday in response to questions you were asked whether Dakota Range turbines were included in your studies. Can you elaborate on correcting that statement? Replying, Applicant witness Haley: "A. Yes. The Dakota Range turbines are not included in the Crowned Ridge II study. I think when she said Dakota Range my brain heard Deuel Harvest. But, in fact, the Deuel Harvest turbines were included, not Dakota Range." [Transcript 2/5/2020, page 262, lines17-24]

So we say to the Commission, how can the Commission, Crowned Ridge Wind II, Staff, the Public, or the Intervenors know if this Application complies with SDCL 4941B-22 (1) 'all applicable laws and rules' if there is no study of all receptors, and not all possible influencing projects are submitted as part of a study? Of course, it is not possible. The Applicant has not met

its burden and the permit should be denied. SDCL 49-41B-22 (1) (2) (3) 4), ARSD 20:10:22:04 (5) ARSD 20:10:22:18 (1-L) (3)

The Grant County ordinance, which governs the CUP for this project, has no parameter in regard to flicker. The measure of 30 hours per year was not a part of the ordinance and as was testified at the evidentiary hearing by Applicant witness Wilhelm, the Applicant sought to impose the same limits as were part of Codington and Deuel counties. In his answer regarding the changes to the ordinance in Grant county, Applicant witness Wilhelm testified: "we were a big part of that process and something that we're proud of." [Transcript 2/5/2020, page 53, line 24-page 54, line 1] The fox was happy to guard the henhouse. However in absence of a flicker component to the Grant County Ordinance which governs the CUP, as in Prevailing Winds, the Commission may impose a Condition of 15 hours flicker limit. [Exhibit A19-3] [Exhibit AC-18]

In addition, SDCL 49-41B-13 states that an application may be denied, returned or amended at the discretion of the Public Utilities Commission for any deliberate misstatement of a material fact in the application or in accompanying statements or studies required of the applicant. The Commission also has the discretion to deny the permit for failure of CRWII to file an application generally in the form and content required by this chapter and the rules promulgated hereunder. ARSD 20:10:22:04 (5) requires "The truth and accuracy of the Application shall be verified by the applicant. Each application shall be considered to be a continuing application, and the applicant must *immediately* notify the commission of any changes of facts or applicable law materially affecting the application." CRWII failed to meet this requirement.

Crowned Ridge Wind II *did not immediately notify the Commission*, but waited over one full month, and submitted the information via Supplemental Testimony on September 20, 2019. [Exhibit A13] ARSD 20:10:22:04 (5). Applicant witness Hart, in response to Intervenor Data Request, Exhibit AC-9, "Q. You state that, "NSP exercised its downsize rights on August 16, 2019"; is that correct? A. That is correct." [Transcript 2/5/2020, page 121, lines 10-12]

The applicant shall provide an estimate of the expected efficiency of the proposed energy conversion process and discuss the assumptions on which the estimate is based. ARSD 20:10:22:32 The accuracy of the application was questioned by Chairman Hanson, directed to Applicant witness Wilhelm: CHAIRMAN HANSON: "On the last page, page 12 of your Direct Testimony, you state, "The wind facility will deliver enough energy to power more than 150,000 homes." Can you give us an idea of what the number of hours per year is produced --.... WITNESS: Megawatt hours on an annual basis? … I'll follow up with that and say I'm happy to supplement that information. I do not have that in front of me right now." [Transcript 2/5/2020, page 88, lines 7-22]

The affiliations of the Applicant are important for the State of South Dakota. Intervenors requested the affiliations of CRWII and NextEra. One company in particular, Blattner Energy, who has been working on a Crowned Ridge Wind II transmission line, and the sister project Crowned Ridge Wind I, was not included in the list and the Intervenors are concerned as to why [Exhibit AC-17]:

> Q. Exhibit AC-17, Applicant's response to Intervenors' question 10. We asked for a list of all affiliations, entities, associations, partnerships, agents, et cetera, that have been associated with the Applicant and NextEra since 2008 in South Dakota.
> My question here is I do not see Blattner Energy on the list of your associations. Would you tell me why they're not listed? Should they be?

A. I would say they should not be listed.
Q. Can you explain that to me since they're building the project for you? Ridge Wind II, LLC, which, you know, Blattner is the EPC contractor who constructs the projects. You know, they were very active on Crowned Ridge I.
But given the context of this question and the point of Crowned Ridge II, I would say Blattner not being included is correct.
Q. Who is constructing the Crowned Ridge II transmission line?
A. That would be Blattner Energy.
Q. So they should be included here then?...
Would you read the question for me, please, the data request.
A. "Provide a list of all the affiliations, entities, affiliated entities, corporations, associations doing business as limited liability company incorporation, partnership and agents that have been associated with the Applicant NextEra and Crowned Ridge Wind II since 2008 in South Dakota."
Q. Will your answer change concerning Blattner Energy now that you've read NextEra in the question?
A. Well, NextEra, I mean, when it's not the -- I mean, I don't want to get into the weeds here, but NextEra, NextEra Energy Resources, LLC? I mean, this is our parent company that's -- you know, I --
Crowned Ridge Wind II, LLC is an indirect subsidiary of NextEra Energy Resources, LLC. NextEra is spelled wrong. It's -- I mean, this isn't coming together here the way this question's asked.
MR. MURPHY: The objection here would be we had an objection in the data request. NextEra is not the Applicant. The Applicant is Crowned Ridge Wind II, LLC. And the reason the objection was there, it was over broad. NextEra Energy Resources is not the Applicant.
MS. CHRISTENSON: Thank you.
Q. My next question, is Crowned Ridge Wind II a subsidiary of NextEra Energy Resources?
A. Yes, it is. [Transcript 2/4/2020, page 66, line 15 continuing through page 70, line 18]

The truth and accuracy of information supplied to this docket by the Applicant was discussed during testimony with Applicant witness Mr. Hart on February 4th:

> The following question in that same Data Request [Exhibit AC-17], No. 6, Intervenors asked, "Please provide the annual balance sheet, annual profit and loss statement for the Applicant for the last three years."
> … Your answer, "Crowned Ridge Wind II does not have an annual balance sheet, annual profit and loss statement for the last three years and, therefore, there are no documents responsive to this request."
> ….
> Q. So your testimony would be there are no funds or business transactions for the company, Crowned Ridge Wind II, LLC?
> A. There are no funds assigned to Crowned Ridge Wind II, LLC.
> Q. Would you please turn to Exhibit AC-15 and find the fourth page, please.
> … Could you describe that document for the Commission, please.
> A. It looks like a check.
> Q. Can you tell me who issued that check?
> A. I seem to be corrected that there's a Crowned Ridge Wind II, LLC check.
> Q. So okay. Thank you. I guess that ends that. So that is a check issued by Crowned Ridge Wind II, LLC to Grant County on August 13 of 2018. That would be within the last three years; is that correct?
> A. Yes, ma'am.[Transcript 2/4/2020, page 116, line 11-page 117, line 19] [Ex AC-15].

Applicant, however, has not yet updated the Intervenors with the correct information as requested in the Data Request. Intervenors submit that, arguably, such failure/intentional inaction could/should serve as a disqualification to Applicant's permit request in this matter.

In addition, Intervenors note Applicant's additional failure as related to specifying the model of turbines and generators – since such has (apparently) not been determined. The Applicant has discussed nameplate, but not model. The Applicant leads the Commission to believe the turbines being used will possibly generate more than 2.1 or 2.3 megawatts at some point in time. Discussion with Applicant witness Thompson: "THOMPSON: Although these turbines *have the capability to be upgraded*, Crowned Ridge has ordered GE and GE will deliver turbines that are nameplated 2.3 megawatts and 2.1 megawatts." [Transcript 2/4/2020, page 172,

lines 9-12]. As such, once again, Intervenors submit that Applicant has failed to meet its burden here.

The Applicant admits it is not at this time capable of constructing a 301MW Project financially, or through Interconnection Agreements. SDCL 49-41B-22 (2)

Chairman Hanson discussed the financial viability of the project with Applicant witness Wilhelm: "CHAIRMAN HANSON: Does the financial viability of the project depend upon state subsidy? WITNESS: I would say that our ability to be able to procure the project up to the 300.6 megawatts is dependent upon some relief, I would say. You know, it gives us more certainty that we would be able to procure an additional 100 megawatts because of the uncertainty that comes with it from, you know, the network upgrade side of things. CHAIRMAN HANSON: Are you in the process of requesting a subsidy at the present time from the State? WITNESS: We are. We are beginning to prepare an application at this time, yes." [Transcript 2/4/2020, page 82, lines 2-14]

Intervenor Christenson spoke to Applicant witness Hart regarding funding of the project. Mr. Hart stated: "There are no funds assigned to Crowned Ridge Wind II, LLC." [Transcript 2/4/2020, page 117, lines 2-3]

The inhabitants of the area, and the state of South Dakota, could obviously be put at significant financial risk as Applicant witness Wilhelm testified that Northern States Power (NSP): "after the transfer of Crowned Ridge II to Northern States Power, Northern States Power may issue bonds or raise other financing which uses the project's assets as collateral." [Transcript 2/4/2020, page 65, lines 8-11.] Even as lay persons, Intervenors fully understand that such

tenuous language should highlight the troubling lack of certainty to the vaguely claimed viability of any such proposed project, especially at this key permit stage .

Intervenor Robish discussed problems with homeowners acquiring or keeping insurance with Applicant witness Marous: Q: "In your research have you found anyone having problem getting or keeping insurance in a wind project on their - like a residential house or -
A: I heard that for the first time a few months ago in Iowa as to an insurance broker." [Transcript 2/4/2020, page 149, lines 2-6]

Concern regarding Applicant's liability insurance, was also discussed by Mr. Robish with Staff witness Kearney. It is also extremely troubling to the Intervenors that the Applicant has not been vetted as to if they are self-insured, or insured at all. "Q. In your review of the Applicant's submissions and applications concerning this project, what did you find in regards to insurance coverage? A: Well, I would expect that NextEra or Crowned Ridge II has liability insurance. And once NSP purchases the project, they would also carry liability insurance. Q. Do they list that insurance with the PUC? A. We do not review that specific information. Q. Okay. I was just wondering if they were self-insured or if they had a carrier? A. That, I do not know. [Transcript 2/6/2020, page 613, line 25-page 614, line 15]. Intervenors are concerned with the Applicant carrying insurance, not only for the protection of the inhabitants should an accident or damage occur, but also in light of the Applicant's fiscal instability.

Property values were identified as affected by wind farm development in the area, including one home specifically which lost value because of a wind turbine sited near the home in the Crowned Ridge Wind II project area, the home is referenced as the 'Richter' property.

Applicant witness Marous and Staff witness Lawrence, who both testified on property values, confirmed to the Commission, the loss of a buyer and the substantial sum of $75,000 was directly attributed to the Project. Mr. Marous' Supplemental Testimony, [Exhibit A16, page 5, line 16]: "I confirmed with the broker that a buyer withdrew their offer with the reason of the proposed wind farm."

Staff witness Lawrence stated the same in his testimony on February 6th: "the buyer canceled the offer due to the proximity of the wind tower." [Transcript 2/5/2020, page 456, lines 20-22] [Exhibit S5, see CD-2] The property value loss due to the proposed siting of a turbine near this particular property, which was discussed as 'the Richter property' at the evidentiary hearing, was not incurred until *after* Codington County issued a CUP to joint CRWI/CRWII. The Board of Adjustment failed to protect the economic condition of inhabitants. The Commission has the opportunity here to protect the inhabitants from such harm as was imposed upon the Richters.

An Intervenor from another wind project in the area also had a $250,000 loss on the sale of property according to Mr. Lawrence's Supplemental Testimony, "in the final analysis, we lost roughly $250k on a 30 acre parcel." [Exhibit S6, page 17,DAL-Exhibit HB].

Mr. Lawrence's further testimony discusses a property that was a 'no sale'. A property that was listed, surrounded by turbines, and the homeowner was unable to sell the property. "There is one sale that I didn't mention in my Direct Testimony called JE-1 that was an expired sale. That was near Toronto.... And I actually went to the property and met with the owner on it…It was -- it's a very interesting property. Some of the wind turbines are within, from my estimate, 700 to -- 800 feet to 1,500 feet, surrounding the property. And, you know, I inspected the property. There was a newspaper article about this gentleman's property and his ability to --

he had a difficult time selling the property. It never sold." [Transcript 2/5/2020, page 465, line 8-page 466, line 4] [Exhibit S5]

Mr. Lawrence, in his Supplemental Testimony, says, "the CD2 transaction does show there *could* be situations where a rural residence could be negatively influenced by a wind tower, turbine or proposed wind project." [Exhibit S6, page 3, lines 4-6] And "It continues to be my opinion that even though the majority of market evidence supports the overall presumption that the selling prices of rural residences have not been influenced by the presence of a wind tower, turbine or project, *it does not rule out* the fact that there could be certain situations where there *could be potential negative influences to the selling price of rural residences* as evident by the analysis of CD2." [Exhibit S6, page 4, line22- page 23, line 4]

Mr. Lawrence's thoughts concerning a pool of possible buyers who will be removed from a seller's buyer pool. Applicant witness Marous testified in regard to Mr. Lawrence's market analysis: "But when it's all well and done, I think, you know, one of his conclusions is there's certain people that don't like turbines. I agree with him." [Transcript 2/4/2020, lines 8-10] Applicant witness Marous continued the same line of thinking when speaking with Chairman Hanson: "CHAIRMAN HANSON: Last question: Would you agree that there are some folks that just absolutely do not want to be living in a residence and are not willing to purchase a residence close to, again, proximately -- close is a relative term -- to a wind farm? MAROUS: I would agree." [Transcript 2/4/2020, page 163 line 24-page164 line 4]

Attorney Swanson discussed participation agreements, agreements forged with a non-participating owners who may not have enough land to host infrastructure, but are offered an agreement to become a participant in the project for some reason, with Applicant witness

Wilhelm: "MR.SWANSON: Q. Well, I think in 1-8 you indicate that – something about the need to mitigate impacts or identify impacts on nonparticipants. Is that a fair statement of what your testimony was? MR WILHELM: A. Yep."[Transcript. 2/4/2020, page 34, lines 8-12]

It would seem the Applicant is aware of the possibility of property value loss near turbine sites by reading the January 19th, 2020 submission by the Applicant of the Participation Agreement offered in the project to a homeowner. At the bottom of the second page, continuing on page 3, Item 7. Release, the document reads: "Owner hereby releases Operator from any and all claims for damages rising from any injury or harm or conditions related to the Property, including but not limited to, any harm or loss due to nuisance, trespass, disturbance, effects *diminishment of the value of the Property* [Emphasis added], proximity of the Wind Farm to Owner's Property and/or residence, diminishment or interference with the ability to use or enjoy the Property, and any other injury or harm, of whatever kind or character, to persons or property, whether now known or unknown, or which may appear or develop in the future, caused or alleged to be caused by the Wind Farm or by Operator, its parent companies, affiliates, successors, assigns, whether claimed or not claimed, or which hereafter might be brought by Owner or any of their successors and assigns."

The financial 'hit' a homeowner could take on their typically largest asset, should not be taken lightly by the Commission. The inhabitants must be protected. Loss of value in rural residential properties will continue to rise as more and more wind farms are built in this small area of northeastern South Dakota.

ARSD 20:10:22:31 is clear when it states: The applicant shall provide information concerning the generation, treatment, storage, transport, and disposal of solid or radioactive

waste generated by the proposed facility and evidence that all disposal of the waste will comply with the standards and regulars of any federal or state agency having jurisdiction.

Applicant witness Thompson was asked about blade disposal and also cement and rebar disposal by Ms. Christenson. The amount of blades at end of life of the project would total 10-12 million pounds. Mr. Thompson suggests the blades would be disposed of in a landfill. The fiberglass blades would be cut up on site, leaving fiberglass splinters in the area land and air and disposed of in a landfill. Mr. Thompson was hopeful a recycle process would be developed, but at this time no such recyclable process exists. [Transcript 2/4/2020, page 186, line 9-page 187, line 20]

It is important for the Commission to not plan on 'hope', especially considering the amount of turbines all being constructed in the concentrated area of northeastern South Dakota. Just as Chairman Hanson was concerned with forecasting and protection of the whooping crane, the Commission must also protect our precious environment. "And if we have a 25-year project here that may extend for I don't know how many years beyond as they find additional generating facilities that would compete in the energy industry, you know, you can't just plan for this minute, for this day when we're looking at something of this nature. We've got to look beyond. We've got to look beyond the three Commissioners here. We've got to look beyond this year or the past two years." [Chairman Hanson, Transcript 2/5/2020, page 403, line 18-page 404, line 1]

The toxicity of blades to humans or animals has not been determined. Mr. Thompson answering questions regarding toxicity of blades asked by Intervenor Christenson: "Q. Nothing toxic or carcinogenic? A. Based on the information that was provided to us from the GE manufacturer, I would say no. Q. And by that are you talking about the material safety data

sheets that would be provided? Is there anything -- A. I didn't go through it in its entirety" [Transcript 2/4/2020, page 178, lines 17-23]

The Applicant presented experts who are capable of conducting air quality studies, yet the applicant has completed no air quality study, nor has any plan to complete an air quality study of the project area. The Applicant has failed to meet its burden, yet again. ARSD 20:10:22:21

Applicant witness Lampeter was asked by Ms. Christenson:, "Q. According to your resume, you have experience in air quality modeling. Did Crowned Ridge Wind II ask you to perform any air quality study or model for this project? A. No." [Transcript 2/5/2020, page 314, lines 16-19]

Applicant witness Ollson: "my degree is in looking at environmental risk and health from stressors in the environments, everything from arsonic to particulate matter in the air…" [Transcript 2/5/2020, page 356, lines 10-12]

A cement batch plant is sited on a major highway, Highway 212, and directly adjacent to a non-participants home. The safety of the public with the amount of cement trucks entering and exiting during construction has not been considered, nor the safety of the non-participating family in regard to traffic and air quality. Staff witness Kearney commenting on the proximity of the batch plant next to the non-participating family's home: "we did not hear from that nonparticipating landowner as to concerns associated with the batch plant proposed as is in this project." [Transcript 2/6/2020, page 591, lines 7-9] The reason of not hearing from a non-participant, is not a reason for the Commission to not protect the public. The danger of increased

truck traffic on an already high traffic highway endangers the public. SDCL 49-41B-22 (2) (3) (4) ARSD 20:10:22:21

ARSD 20:10:22:18 (3) requires CRWII to conduct an analysis of the compatibility of the Project with special attention paid to the effects on rural life…"

Applicant witness Haley spoke of using the *most conservative* method to gauge shadow flicker by assuming a receptor is a 'greenhouse'. However, in gauging sound, the model does not use the most conservative approach. Christenson and Haley discuss: " Q.You (Haley) talked about the greenhouse sensor a little earlier being so much more conservative and that's why you use that? A. Yes. Q. Okay. Why do you not use the most conservative sensor for sound? A. What would that be? Q. I believe you said zero. A. Oh, you're talking about the ground attenuation factor? Q. Yes. A. Because if we used that factor, it would be so unrealistic as to basically make the wind farm not feasible, more than likely. Your turbine spacing would be so unrealistically far apart that it wouldn't be feasible to build the wind farm. [Transcript 2/5/2020, page 286, lines 19 – page 287, line 9]

A conservative approach, erring on the side of caution for rural inhabitants, should be the standard for permitting of any industrial wind facility. SDCL 49-41B-22 (3)

Rural residents are accustomed to the quiet of the surroundings, and to the darkness of the night sky. Both the quiet and the darkness are important parts of rural life, not only for the enjoyment of property, but also for the production of healthy livestock. Livestock, just like people, need rest and a respite from fear of predation. As we have already shown to the Commission in our brief, the Applicant did no studies in regard to livestock or wildlife noise or shadows.

To further protect the rural inhabitants, animal and human, we now call the attention to the Commission on the Applicant's lack of approval for an aircraft detection lighting system (ADLS). SDCL 49-41B-25.2 is not discretionary. 'For *any* wind energy facility that receives a permit under this chapter after July 1, 2019, the facility *shall be equipped* with an aircraft detection light system…'

Despite the plain language of SDCL 49-41B-25.2, the Applicant admits it has *not even applied* for FAA approval for ADLS lighting, and has no intention to apply until *after* the Commission would issue or deny a permit for CRWII project. Staff attorney Reiss to Applicant witness Wilhelm: "Q. Do you have a time line in mind as to when that application will be submitted to the FAA? A. Yes, I do. Right now we're targeting April of this year." [Transcript 2/4/2020, page 77, lines 2-5]

In a shocking exchange between Chairman Hanson and Applicant witness Wilhelm, Wilhelm admits the Applicant would challenge in circuit court, the authority of the Commission to enforce South Dakota law if this project were permitted and the Applicant could not meet the requirement of the law: "CHAIRMAN HANSON: Am I to infer from your statement on page 6 that I stated -- am I to infer that if the FAA were to state that you did not need the ADLS and yet the PUC said as a condition that you would have ADLS, would you contest that in Circuit Court? THE WITNESS: I would say yes." [Transcript 2/4/2020, page 86, lines 6-11]

The possibility of FAA denial is a very real and distinct possibility. "Through our consulting with Capital Air Space and through coordination with the FAA it has been expressed that there is potential radar saturation in this part of eastern South Dakota…" [Witness Wilhelm, Transcript 2/4/2020, page 75, lines 19-22]. Applicant witness Wilhelm answers Staff attorney Reiss when asked the meaning of radar saturation: "You know, through coordination with Capitol

Airspace it was expressed to us that when there is a certain number of proposed structures that have, you know, a tall height to them within certain proximities to certain radars, those radars have the potential risk for saturation." [Transcript 2/4/2020, page 76, lines 4-9].

The Commission is aware the Applicant does *not* have approval from the FAA for ADLS lighting and will not have such approval or denial until summer of 2020. "COMMISSIONER NELSON: So in relation to this project, Crowned Ridge II, understanding that you may not have permission from the FAA to implement this system until July or later…" [Testimony 2/4/2020, page 206, lines 6-9] Therefore, the Applicant may never be able to comply with SDCL 49-41B-25.2, 49-41B-22 (1) (2) (3) and the Commission must deny the permit. As a result, once again, Intervenors submit that Applicant has failed to meet its burden of proof in this respect.

Mr. Swanson, attorney for intervenors Ehlebracht and others, went on to discuss turbine density of the project with Staff witness Hessler: "… your direct testimony in S2. Page 3, line 10 where you say the project layout -- I'm trying to quote here. I believe this is a quote. "The project layout appears to have been aggressively devised." Could you explain that a bit further for me? A: Yes. I've seen a lot of wind turbine site plans, and this one struck me as being dense in the sense of they're trying to put a lot of turbines into the project area. Q: And it still remains that way as the plan now stands? A: Yes." [Transcript 2/5/2020, page 497, line 19-page 498, line 5].

The project *shall* be equipped with an aircraft detection light system. The Applicant has not met its burden. SDCL 49-41B-25.2

The Legislature intended for an extensive and complete review of a wind farm permit application by the Commission. The legislature would not have done so if it did not expect its statutory requirements to be a high bar. In this proceeding, as of the conclusion of the

evidentiary hearing, the Project is still, at best, ambiguous. It is also accurate to say the Application on completion of the evidentiary hearing is not viable project. The Applicant admits it is not at this time capable of constructing a 301MW Project financially, or through Interconnection Agreements. SDCL49-41B-22 (2)

Applicant's statutory burden of proof under SDCL 49-41B-22 has not been met in this proceeding. Additionally, ARSD 20:10:01:15.01 is one of the Commission's Rules of Practice, and it also applies to this matter. The rule requires: In any contested case proceeding, the complainant, counterclaimant, applicant, or petitioner has the burden of going forward with presentation of evidence unless otherwise ordered by the commission. The complainant, counterclaimant, applicant, or petitioner has the burden of proof as to factual allegations which form the basis of the complaint, counterclaim, application, or petition. ARSD 20:10:01:15.01. Applicant's evidence supporting its regulatory compliance obligations are matters within the possession of the Applicant. The burden to produce evidence is on the Applicant. Davis v. State, 2011 S.D. 51, 804 N.W.2d 618, 628 (S.D. 2011); Eite v. Rapid City Area School Dist. 51-4, 739 N.W.2d 264 (S.D. 2007); Meacham v. Knolls Atomic Power Lab., 554 U.S. 84 (2008); Dubner v City and County of San Francisco, 266 F3d 959, 965 (9th Cir 2001) This burden remains upon Applicant regarding all wind energy siting statutes and concerning all wind energy siting rules throughout every stage of the proceeding. Gordon v. St. Mary's Healthcare Ctr., 617 N.W.2d 151 The facts and issues regarding the denial of due process of the law raised by Intervenors also reflect Applicant's failure to meet its statutory and administrative burden of proof in this proceeding. Wind farm siting laws and the related administrative rules have disturbed Applicant's efforts to obtain a permit. The proposed Application, at the completion of

the evidentiary hearing, does not meet Applicant's burden of proof under which this Commission might have approved a permit -- even with proposed conditions.

In this matter, Docket EL 19-027, the Applicant and Staff submitted proposed permit conditions. As the record reflects, Staff and Applicant met privately, without all parties (namely, Intervenors) present at Condition negotiations. Staff Analyst Kearney discussing negotiations with the Applicant: A. "No. That's a good clarification. And once we get to the point where we want to -- once our testimony's been submitted and we've gotten through the discovery part of the proceeding is when we start verbally discussing conditions with the Applicant. And it's easier to facilitate those negotiations face to face and verbally rather than through formal e-mails." [Transcript 2/6/2020, page 598, lines 1-7]

Under the circumstances, Intervenors cannot and do not accept the terms of the proposed conditions.

Applicant must prove to the Commission compliance with all the elements of South Dakota's siting statutes and each of the applicable siting rules by a greater convincing force of the evidence. Applicant's burden of proof is that the "proposed facility will comply with all applicable laws and rules." That's not a maybe. That's not a might. The Applicant is not allowed 'to get kind of close' to complying with applicable laws and rules. An applicant must comply with *all* applicable laws and rules. Applicant has not met its burden.

In this proceeding are the Staff and Applicant's proposed 45 db(A) and 50 db(A) sound levels for the proposed project. Testimony of Staff witness Hessler supports 40 db(A) being an achievable design goal for the Project. Amber Christenson and Staff witness Hessler speaking about the use of low noise trailing edge (LNTE) blades and Enhanced Power Curve Operation

(EPCO) on CRWII turbines: "Q. So by adding those two things together, would it be possible for Crowned Ridge Wind II by using your suggestions to maybe get a little closer to the 40 dBA design goal? A. (Hessler) Well, actually they're not that far away from it…Because the modeling adds in a 2 dB uncertainty factor. And all that is is increasing the turbine level by 2. It's lifting all the levels by 2. And now the further commitment to use this EPCO optimization essentially in theory reduces all levels by 3 and a half dB. Now almost all of the nonparticipants, according to current modeling, are in the 40 to 43-is range. So by setting aside the safety factor in the modeling and by using this EPCO, in effect, the actual level should be around 40 or less for just about everybody." [Transcript 2/5/2020, p510, line 10-page511, line 1].

Because experts believed it to be an achievable design goal, in Prevailing Winds project, the Commission so ordered a 40 db(A) limit at non-participating residences. Intervenors' attorney Mr. Swanson:

> "In the Commission's Final Order in EL18-026,Prevailing Wind Park, at paragraph 65 we find, "The record demonstrates that 40 dBA at nonparticipating residences is an appropriate reasonable sound limit to protect the welfare of nonparticipants." And then at 67, paragraph 67 on that same final order, "The record demonstrates that a 30-hour-a-year limit is merely an industry standard," and the Commission went on to find that in that case it should be 15 hours for nonparticipants. And I have two general points I'd like to make about that. First, the PUC has made the noise finding in EL18-026 on the strength of an expert's opinion, Mr. Hessler. You've been delegated, the Commission, the authority to make a determination as to the substantial impairment of health, safety, or welfare of inhabitants. The legislature gave you no other apparent guidelines to follow." [Transcript 24/2020, p24 line 22 – p25 line 14]

The importance of sleep cannot be overlooked by this Commission. To provide for the protection of the health of residents, a 40 dB(A) requirement should be imposed on the project. Applicant witness McCunney addressing sleep disturbance and health to Ms. Christenson: "CHRISTENSON: Q. So stress from annoyance, sleep deprivation could lead to a health effect?

I guess that would be my question. A. Well, certainly *sleep deprivation can lead to adverse health effects, no question*." [Transcript 2/5/2020, page 324, lines 13-17].

Applicant must prove to the Commission compliance with all the elements of South Dakota's siting statutes and each of the applicable siting rules by a greater convincing force of the evidence. Applicant has failed to meet that burden on the issue of health and welfare. SDCL 49-41B-22(3).

The Applicant failed to prove the project will not substantially impair the health, safety or welfare of the inhabitants. SDCL 49-41B-22 (3) The Applicant did not provide a description of the existing environment at the time of the submission of the application. ARSD 20:10:22:13

No pre-construction sound study was submitted to the Commission to provide a description of the existing environment.

> Question directed to Applicant witness Haley: "Q. No preconstruction ambient noise study was conducted by you or anyone else that you're aware of?
> A. That's correct." [Transcript, 2/4/2020, page 229, lines 17-19]
>
> Question directed to Applicant witness Lampeter: "Q. Did Crowned Ridge Wind II ask you to perform a preconstruction sound modeling study?
> A. Yes. That study was conducted, and they requested it.
> Q. And that's the study that you were talking about that's not been published or submitted?
> A. That's correct." [Transcript, 2/5/2020, page 314, lines 2-8]

Although 4 experts appeared and gave testimony and evidence at the evidentiary hearing for CRWII, no infrasound or low frequency sound study was requested to be conducted, nor any study submitted to the Commission for review.

> Question directed to Applicant witness Haley: "Did Crowned Ridge Wind II approach you about assessing infrasound or low frequency noise for this project?
> A. No. They did not ask for a specific study on low frequency or infrasound noise." [Transcript, 2/4/2020, page 230, lines 7-11]

Question directed to Applicant witness Ollson: "Q. …Did Crowned Ridge Wind II retain your service for a study pertaining to infrasound or low frequency noise?...
A. it was an overview of the knowledge of the scientific literature … and why we would not be concerned." [Transcript, 2/5/2020, page 357, lines 7-21] Apparently, by Mr. Ollson's answer, a study was not produced, only an 'overview of the knowledge of literature' was done by this witness.

Question directed to Applicant witness Lampeter: "Q. Did Crowned Ridge Wind II ask you to perform any studies or modeling regarding low frequency noise or infrasound?
A. No." [Transcript, 2/5/2020, page 314, lines 12-15]

Question directed to Staff witness Hessler: "Q. Okay. Did Staff ask you to do any study in regard to infrasound and/or low frequency noise for this project?
A. They didn't ask me to do it, but I did talk about it in my Direct Testimony.
Q. Okay. Not an actual study, just --
A. Oh, no. No study." [Transcript, 2/5/2020, pate 511, lines 9-15]

No air quality study was requested or submitted to the Commission for review.

Question directed to Applicant witness Lampeter:" Q. According to your resume, you have experience in air quality modeling. Did Crowned Ridge Wind II ask you to perform any air quality study or model for this project?
A. No." [Transcript, 2/5/2020, page 314, lines 16-19]

No health expert was retained by the Commission to protect the public. Staff relied on a letter from the South Dakota Department of Health as their evidence of absence of health impairment by the project. Mr. Swanson and Mr. Kearney discuss Exhibit DK-3, a letter from the South Dakota Department of Health, in the following testimony: Mr. Swanson: "…your testimony discusses a response you received from South Dakota Department of Health. And I believe that relates to Exhibit DK-3 also. Am I correct? A. I believe so. Let me look at DK-3 real quick. A.Yep. That's correct. Q. All right. And I've noted here in my notes a quote as follows, and I trust this is accurate: "Agency" -- meaning South Dakota Department of Health -- "has not taken a formal position on wind turbines and human health." Is that a correct statement or a summary of DK-3 in part? A. Yes. That's correct. Q. All right. They haven't taken a formal

position, but to your knowledge, have they taken an informal position, if that's possible? A. The information that we have is what has been provided in this docket, and I'm not aware of an informal position -- Q. All right. A. -- taken by the Department of Health. Q. All right. Has the PUC itself, based on the response of the Department of Health, itself taken a position formally or informally about wind turbines and human health? A. Commission Staff relies on the experts in the health field to provide that position, and we would rely on this letter from the Department of Health. Q. But they haven't taken a position? [Transcript 2/6/2020, page 564, line 11-page 565, line 15] [Exhibit DK-3].

Mr. Swanson discussed the suggestion, in response to a data request by Staff, of a health professional to be contacted for information regarding the protection of the public regarding health: "Q. All right. In DK-2, which is part of your S1, you had made inquiry of my clients, the Intervenors from Goodwin, and in I-5 response -- this is at page 6 of 157, part of S1. Did you find that? A. Yep. Sorry. Yes. Q. All right. Our response had made reference to a Dr. W. Ben Johnson from Des Moines, Iowa, who is an electrophysiologist or a cardiologist. Did you make any effort to contact Dr. Johnson regarding possible medical testimony? A. We did not. We relied on the Department of Health. Q. That's the same Department of Health that said they didn't have a position or a formal position to take? A. Correct. Q. Did you discuss Dr. Ben Johnson's possible views with anyone at the Department of Health? A. No, we did not." [Transcript 2/6/2020, page 576, lines 1-17].

No study or proposed conditions concerning safety of travelers on the roadway were submitted to the Commission. This question was directed to Applicant witness Sappington "Q. Did your company conduct any studies concerning shadows on the roadway? No." [Transcript, 2/5/2020, page 385, lines 4-6] A question was directed to Staff witness Kearney by Intervenor

Robish regarding safe travel near turbines: "Q. Okay. Some of the turbines proposed will be sited 600 feet or less from a highway or roadway. Will there be a requirement for a placard or warning sign to be placed at such sites by that specific turbine to warn the public of a danger of ice throws? It's been done before. A. Yeah. And there's not a specific proposed permit condition in this one." [Transcript, 2/6/2020, page 612, line 23-page 613, line 4].

Even though the Applicant hired qualified consultants for some studies, the Applicant did not perform, nor submit to the Commission an ice throw study for review. Question directed to Applicant witness Haley: "Okay. On line 15 you mentioned you've performed ice throw studies, and you said that in your opening statement. Did you perform any ice throw studies for this project? A. No, I did not. Q. Did Crowned Ridge Wind II ask you or anyone that you are aware of for any ice throw study to be done for this project? A. They did not ask me, and I do not know if they contacted anyone else." [Transcript, 2/4/2020, page 229, line 21-page 230, line 5]

No study for domestic animals or wildlife for audible noise, air quality, shadow, low frequency noise or infrasound were requested or submitted to the Commission for review. ARSD 20:10:22:18 (1) (3) Question directed to Applicant witness Sappington: "Q. Did your company conduct any study concerning noise, audible and inaudible, including low frequency noise or infrasound on domestic animals? No." [Transcript, 2/5/2020, page 385, lines 10-13] Question directed to Applicant witness Sappington: "Q. Did your company conduct any study concerning shadow effects on wildlife or domestic animals? No." [Transcript, 2/5/2020, page 385, lines 7-9]

The density of not only this potential project, but also in combination with other permitted and existing projects, will affect the precious wildlife of South Dakota . Chairman Hanson and Staff witness Morey from the South Dakota Game, Fish and Parks discuss the egregious effects: "CHAIRMAN HANSON: Your answers talk about – on page 8 specifically,

your answer to question on page 12 state that "some species will not use grassland or wetland habitat within a certain distance of wind turbines." And on page 16 you speak of the cumulative impacts. There are a lot of wind towers in that area presently. A lot is a relative term, I suspect. But this one is going to have -- if it's approved, would have a *greater concentration of turbines*. With all of those turbines presently there and the potential for these, are you concerned about the cumulative impact, knowing that there's -- there is, in fact, according to your testimony, that some species will not use the grassland areas close to wind towers? THE WITNESS: *Yes. We are concerned with cumulative impacts.* There has been, as you mentioned, a lot of development in this area. And some of the research out of North and South Dakota, there's *seven out of nine breeding grassland bird species will avoid turbines* up to 300 meters, so about a quarter mile – not quite a quarter mile. About two-tenths of a mile." [Transcript 2/6/2020, page 546, line 8-page 547, line 4].

Applicant confidentially filed safety information with the Commission. Information of safety has not been conveyed to landowners. Ms. Christenson and Mr. Thompson discuss: "Q. Mr. Thompson, my first initial questions I don't need an exhibit. Safety manuals were filed confidentially in this docket. Could you tell me what the GE safety distance would be for being in the proximity of a turbine during normal operations? A. As referenced by the GE safety manual, this would be 1.1 times the tip height of the turbine." [Transcript 2/4/2020, page 173, line 20-page 174, line 1] Further discussion concerned abnormal operations, which Mr. Thompson explained would be the same safety setback requirement as normal operation.

Commissioner Nelson expounded on the question of the safety zone information being communicated to landowners in the project area. "If the safety zone means anything, it would seem that your company should communicate that with the landowners. But I'm understanding

that that has not happened; correct? THE WITNESS: I can't state definitely that it hasn't happened. I'm not aware of it." [Transcript 2/4/2020, page 204, line 17] SDCL 49-41B-22 (2) (3). The Applicant has failed to meet its burden. The facility will not pose a threat of serious injury to the environment nor to the social and economic condition of the inhabitants or expected inhabitants of the area, nor impair the health, safety or welfare of the inhabitants.

CONCLUSION

Applicant's pending application is woefully deficient in meeting South Dakota's statutory criteria. As a result, the construction of the project cannot and does not meet the requirements of South Dakota Codified Law 49-41B-22. Applicant has failed to demonstrate that the proposed facility will comply with all applicable laws and rules. Moreover, Applicant has fallen well short in demonstrating that the facility will not pose a threat of serious injury to the environment nor to the social & economic condition of inhabitants or expected inhabitants in the siting area. Further, Applicant has also failed to prove and demonstrate that the facility will not substantially impair the health, safety or welfare of the inhabitants.

Applicant should therefore explore areas that are less densely populated, both as to humans and animals. Developers should be encouraged to develop in those areas. Our rural way of life, and our wildlife are precious, precious treasures that must be protected. Once the Coteau Prairie may be allowed to be scarred, it will obviously be scarred for life with unacceptable and unsightly relics of cement, rebar, fiberglass and other offensive refuse.

Consequently, Intervenors Christenson, Robish and Mogen strongly urge that the requested permit be denied. In the alternative, however, Intervenors submit that the following conditions must otherwise be required to govern any such proposed project:

- 40 dB(A) noise limit when averaged over a ten minute time period for non-participating residences;
- No shadow flicker shall be permitted on non-participating residents' homes; or, in the alternative, a 15 hour per year, 15 minute per day limit;
- 1500' setback from any public roadway to protect all travelers;
- Construction noise restriction to 40 dB(A) from 7 pm to 7 am.

For the reasons outlined herein, the proposed permit should be denied. Otherwise, at a minimum, requiring/imposing the above-listed (minimum level) conditions on the project will greatly minimize the risk(s) associated with/attributable to such project since – absent such necessary conditions – the project will substantially impair the health, safety, or welfare of inhabitants living in and around the project area. Moreover, Intervenors point out that there appears to be no evidence – none – in the record that suggests and persuasively demonstrates that the above-referenced important and necessary (minimum) conditions would or could somehow prevent such project from being built.

However, Intervenors make specific note that the project, as was presented and as testimony outlined at hearing, is *not* a financially viable project at this time. That is, Applicant has failed to present evidence that it can comply with all laws and rules, not only the county CUPs, but the Applicant has not even yet applied for the mandatory ADLS lighting, and therefore would necessarily legally challenge this body's authority if denied by the FAA. It is quite troubling to Intervenors – and, obviously, should be much more concerning to this regulatory body – to consider at this juncture as to whether that was/is the purpose for Applicant to have heretofore withheld the CRWII FAA ADLS application until after the permitting deadline? Intervenors submit that such action and/or obtrusive inactions by Applicant, as well as the other remaining

questions, are of such important significance that, if for no other reason, such should (also) serve as a basis for denial.

As noted here and as outlined at hearing, the Crowned Ridge Wind II project is not currently viable and, perhaps more importantly, if permitted will adversely impact and impair the life, health, safety and welfare of local inhabitants and, as such, the requested permit must be denied.

Dated this 2nd day of March, 2020.
Respectfully submitted by Intervenors:



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BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF SOUTH DAKOTA

IN THE MATTER OF THE APPLICATION BY CROWNED RIDGE WIND II, LLC FOR A PERMIT OF A WIND ENERGY FACILITY IN GRANT, CODINGTON AND DEUEL COUNTIES	)))))	**EL19-027** **CERTIFICATE OF SERVICE**

Certificate of Service

Intervenors Allen Robish, Amber Christenson and Kristi Mogen hereby certify a true copy of Intervenors' Post Hearing Brief with incorporated Findings of Fact and Conclusions of Law and Certificate of Service were served electronically to the Parties listed below, on the 2nd day of March 2020, addressed to:

Ms. Patricia Van Gerpen Executive Director South Dakota Public Utilities Commission 500 E. Capitol Ave. Pierre, SD 57501 patty.vangerpen@state.sd.us (605) 773-3201 – voice	Ms. Kristen Edwards Staff Attorney South Dakota Public Utilities Commission 500 E. Capitol Ave. Pierre, SD 57501 Kristen.edwards@state.sd.us (605) 773-3201 - voice
Ms. Amanda Reiss Staff Attorney South Dakota Public Utilities Commission 500 E. Capitol Ave. Pierre, SD 57501 amanda.reiss@state.sd.us (605) 773-3201 - voice	Mr. Mikal Hanson Staff Attorney South Dakota Public Utilities Commission 500 E. Capitol Ave. Pierre, SD 57501 mikal.hanson@state.sd.us (605) 773-3201 - voice
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From: MICHAEL CARTNEY <CARTNEYM@lakeareatech.edu>
Sent: Friday, February 28, 2020 5:38 PM
To: PUC-PUC <PUC@state.sd.us>
Subject: [EXT] Docket EL19-027

Commissioners Fiegen, Hanson, and Nelson,

Lake Area Tech proudly supports the Wind Energy Industry, providing key entry level technicians for their workforce. As such, we may be able to bring a unique perspective on the topic, and our staff and industry partners stand ready to answers any questions you may find our perspective helpful on. I know the importance of investing in our state's future. At Lake Area Technical Institute, we strive to prepare our students for the careers of tomorrow. For South Dakota's youth, wind energy is definitely part of their renewable energy future in our state.

Therefore, I strongly urge you to support the Crowned Ridge II project. Aside from providing another source of clean, renewable energy, Crowned Ridge II would serve as a vital supply of construction and maintenance jobs for the future leaders of South Dakota. They will also likely employ graduates from our Energy Technology and Energy Operations programs. The results would be millions of dollars flowing into the state through taxes and economic activities. It will also provide a more diverse workforce and economy locally.

I would respectfully support the approval of Crowned Ridge II.

Thank you for your attention to this matter.

Mike

Mike Cartney
President
Lake Area Technical Institute
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(800) 657-4344
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- Page 153 -

ADMINISTRATIVE RECORD - Scan 3 - Page 51 of 174

From: PUC
Sent: Monday, March 2, 2020 12:35 PM
To: 'CARTNEYM@lakeareatech.edu' <CARTNEYM@lakeareatech.edu>
Subject: EL19-027

Mr. Cartney,

Thank you for your message regarding the Crowned Ridge II wind project siting permit request, docket EL19-027. Commissioners Nelson, Fiegen and I base our decisions on evidence presented via the docket review process, as required by law. The primary determination is whether or not the location, construction and operation of the facilities will produce minimal adverse effects on the health, safety and welfare of South Dakota's environment and citizens. These standards are provided by South Dakota Codified Laws and Administrative Rules.

Your message and my response will be posted under Comments and Responses in the docket, so my fellow commissioners and others interested in this docket may read them. Here is a link to EL19-027, https://puc.sd.gov/Dockets/Electric/2019/EL19-027.aspx, and here is a link to the commission's Siting Guidelines posted on the commission's website home page and in the siting docket: https://puc.sd.gov/commission/dockets/electric/2019/el19- 027/sitinghandout.pdf.

Chairman Gary Hanson
South Dakota Public Utilities Commission
https://puc.sd.gov/

From: David Owen <davido@sdchamber.biz>
Sent: Tuesday, March 3, 2020 3:02 PM
To: PUC <PUCPF@state.sd.us>
Subject: RE: [EXT] EL19-027

TO: puc@state.sd.us
FROM: davido@sdchamber.biz

SUBJECT: EL-19-027: Crowned Ridge Wind II, LLC

Dear Commissioners Hanson, Fiegen, & Nelson:

I am writing to you today regarding the Crowned Ridge Wind II, LLC (CRW II) wind project (Docket EL-19-027).

The South Dakota Chamber of Commerce is the one of the leading voices of economic development for many business sectors of our state. The Chamber sees wind development and generating power from this natural resource as an opportunity to strengthen the state's local economies. Localized projects such as the one being proposed by NextEra Energy will help deliver jobs during construction, full time jobs to manage and provide maintenance once built, and money in form of local taxes that will benefit communities for years to come.

Wind energy is providing a boon to the rural economy and should be supported in South Dakota.

We kindly ask that you consider granting the CRW II's request for a Facility Permit to continue their good work in our area.

Thanks to all three of for your service to all of South Dakota and to your continued support of this abundant natural resource.

Respectfully

David Owen, President
South Dakota Chamber of Commerce and Industry

PO Box 190
Pierre, SD 57103

davido@sdchamber.biz
(605) 224-6161

South Dakota
CHAMBER OF COMMERCE & INDUSTRY

ADMINISTRATIVE RECORD - Scan 3 - Page 54 of 174

From: dani@sdfbf.org <dani@sdfbf.org>
Sent: Wednesday, March 4, 2020 2:55 PM
To: PUC-PUC <PUC@state.sd.us>
Cc: 'Krystil Smit' <k.smit@sdfbf.org>
Subject: [EXT] Docket EL19-027

Please see the attached comment letter re: Docket EL19-027. Please let me know if you have any questions.

Dani

Dani Hanson
Director of Public Policy
South Dakota Farm Bureau
Cell: 605.209.6021

SOUTH DAKOTA FARM BUREAU®

March 4, 2020

South Dakota Public Utilities Commission
500 Capitol Ave.
Pierre, SD 57501

RE: Docket EL19-027

Dear Commissioners Hansen, Nelson, and Fiegen,

South Dakota Farm Bureau is a proud supporter of wind energy development in South Dakota. Wind energy has offered our members an opportunity to diversify the income they are receiving from their land as well as help generate renewable energy for their operations and the state at large.

Wind energy development has a positive impact on the rural communities that many of our members call home. Our members support their local communities and their local economies. Additional revenue coming in from a wind lease means additional revenue for local grocery stores, gas stations, and restaurants.

South Dakota's rural schools, counties, and townships are also beneficiaries of the tax revenue generated by wind farms. This revenue helps address the need to maintain and update our roads and bridges and continues to support the high-quality education our children receive. This additional tax revenue is especially crucial given the many challenges our townships and counties are facing when it comes to maintaining infrastructure given the excessive amount of moisture the state received last year.

South Dakota producers are known for generating homegrown, renewable sources of energy, and wind energy is one of those sources. South Dakota Farm Bureau would respectfully ask you to continue to support wind energy development in South Dakota.

Sincerely,

Scott VanderWal, President
South Dakota Farm Bureau

Krystil Smit, Executive Director
South Dakota Farm Bureau

013974

From: PUC
Sent: Thursday, March 5, 2020 1:53 PM
To: davido@sdchamber.biz
Subject: EL19-027

Dave,

Thank you for your message regarding the Crowned Ridge II wind project siting permit request, docket EL19-027. Commissioners Nelson, Fiegen and I base our decisions on evidence presented via the docket review process, as required by law. The primary determination is whether or not the location, construction and operation of the facilities will produce minimal adverse effects on the health, safety and welfare of South Dakota's environment and citizens. These standards are provided by South Dakota Codified Laws and Administrative Rules.

Your message and this response will be posted under Comments and Responses in the docket, and here is a link to EL19-027, https://puc.sd.gov/Dockets/Electric/2019/EL19-027.aspx. Here is a link to the commission's Siting Guidelines posted on the commission's website home page and in the siting docket: https://puc.sd.gov/commission/dockets/electric/2019/el19-027/sitinghandout.pdf.

Chairman Gary Hanson
South Dakota Public Utilities Commission
https://puc.sd.gov/

ADMINISTRATIVE RECORD - Scan 3 - Page 56 of 174

From: PUC
Sent: Thursday, March 5, 2020 3:13 PM
To: k.smit@sdfbf.org
Cc: dani@sdfbf.org
Subject: EL19-027

Mr. VanderWal and Ms. Smit,

Thank you for your letter regarding the Crowned Ridge II wind project siting permit request, docket EL19-027. Commissioners Nelson, Fiegen and I base our decisions on evidence presented via the docket review process, as required by law. The primary determination is whether or not the location, construction and operation of the facilities will produce minimal adverse effects on the health, safety and welfare of South Dakota's environment and citizens. These standards are provided by South Dakota Codified Laws and Administrative Rules.

Your letter and this response will be posted under Comments and Responses in the docket, and here is a link to EL19-027, https://puc.sd.gov/Dockets/Electric/2019/EL19-027.aspx. Here is a link to the commission's Siting Guidelines posted on the commission's website home page and in the siting docket: https://puc.sd.gov/commission/dockets/electric/2019/el19-027/sitinghandout.pdf.

Chairman Gary Hanson
South Dakota Public Utilities Commission
https://puc.sd.gov/

ADMINISTRATIVE RECORD - Scan 3 - Page 57 of 174

THE LAW PRACTICE OF ARVID J. SWANSON, P.C.

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March 16, 2020

Electronic Filing &
Scan to all Persons on PUC E-Service List per Certificate of Service

Patricia Van Gerpen, Executive Director
SOUTH DAKOTA PUBLIC UTILITIES COMMISSION
Pierre, South Dakota

Re: File 6184-004. • *In re Docket EL19-027, Crowned Ridge Wind II, LLC*
Codington, Grant & Deuel Counties

Dear Director Van Gerpen:

The Commission's order of February 15, 2020 provides a decision is to be made on March 17, 2020, and that parties shall have 5 minutes for oral argument "responding to the parties' briefs." With all due respect to the Commission, we would ask this letter be accepted in lieu of further arguments on behalf of my clients, Garry Ehlebracht, *et al*. I trust this letter will be provided to each of the Commissioners accordingly.

These Intervenors, comprising the "Goodwin Group," maintain they each possess property rights in some conflict with the siting permit sought by Crowned Ridge Wind II, LLC. This conflict certainly extends to both noise and Shadow Flicker as "Effects," otherwise covered by Crowned Ridge's easements embraced both within the leases executed with Participants, and also the sole "Participation Agreement" applicant thought prudent to enter into with a Non-Participant (thus converting the *non-participant* into a *participant*, but one without turbine sites). The Goodwin Group, of course, has no such agreements with Applicant, nor do they seek them – rather, my clients simply ask that the Commission require that Applicant observe these expressed property rights. Instead, we are faced with intrusions from a wind farm that is aggressively designed, intended to hug regulatory limits rather than limiting conflicts with non-participants, as witness Hessler has testified.

These case-by-case regulatory limits seem to be devised, in some part, on the Zoning Ordinances of the counties in question. Beyond that, they are fashioned on an *ad hoc* basis, keyed to the regulator's professed eye kept on "applicant's burden of proof" as outlined in SDCL 49-41B-22. This Commission, as recounted in the testimony of Kearney, has now allowed (not counting this one) eight permits with shadow flicker limits of 30 hours per year, and one (EL18-026) with limits of 15 hours per year-30 minutes per day. As to noise, there is a similar permit count, with 45 dBA being the rule imposed for non-participants (50 dBA for participants), while one permit has been limited at 40 dBA. Kearney then cites Hessler, claiming "it is difficult for wind projects to meet the ideal design goal" (this being 40 dBA), so allowing higher impact on non-participants, in Kearney's opinion, is "reasonable."

Hessler and Kearney have not considered whether the test of "will not substantially impair the health, safety or welfare of the inhabitants" amounts to more than merely imposing, case-by-case, the specific limit of Effects they find "reasonable." In this process, the experts, and ultimately this Commission – guided primarily by the spurious Lodestar of "the numbers we used last time" - seem unwilling to ask whether those who must permanently tolerate the Effects might possess vested property rights conflicting with whatever the selected experts see as entirely "reasonable."

Legal rights as to real property, as claimed by these Intervenors, have sharp and distinct corners; this is why Applicant uses "Effects Easements" to be in command of the lands and lives of the Participants. Meanwhile, for those who are not Participants, the opinions of experts lead this Commission into the entering of orders seen as "reasonable" infringements of property rights. This is actually a descent into a quagmire that sullies the property rights of Non-Participants, a descent halted only, in theory, should the snag of "substantial impair[ment]" be struck in the process. However, the "property rights" of those assaulted in *Prevailing Winds* are no different – *are no more exalted or more highly valued by governmental action* - than those who are about to be assaulted in and around the Village of Goodwin.

This Commission has previously rejected claims (Docket EL18-026 being one example) that Non-Participants should not be subjected to *any* amount of Shadow Flicker, noting that no other jurisdiction has banned such an infiltration.[1] This kind of reasoning simply prolongs the agony and the conflict. The correct question is – if having Shadow Flicker invade one's own residence *is* a matter of the inhabitant's welfare (as the Commission has implicitly found in *Prevailing Winds*, EL18-026), why should *any* amount of it be allowed? Is the limit reached (thus warranting a regulatory limit) only if the Effect is one that is thought to "substantially impair" welfare? The right to avoid Shadow Flicker is one of property rights (as Professor Laymon would assert, if only he were still teaching us today). As such, the legislative charter of this Commission, to delegate and distribute these Effects, like a dose of medicine – under a case-by-case determination of what is "reasonable" – is thus challenged.

On what empirical testing and studies are the "reasonable" dosage determinations based? Clearly, your actions – to some extent – are based on the so called "German standards," as reported in Exhibit A12-16, as further widely publicized in Stanton's NARUC Best Practices report. The German standard for Shadow Flicker consists of 3 distinct time or duration elements.[2] This Commission (and Staff) would seem to be fully aware of the complete scope of German standards, as in *Prevailing Winds*, the Shadow Flicker limit was imposed under both an annual and a daily standard. The German standards have three components. Is this Commission not troubled by the fact that just one of those three Shadow Flicker standards (namely, 30 hours annually) has been imported and then re-sold to each of the County governments as *the* singular "industry standard"?

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[1] Other than Hutchinson, MN, of course. This writer suggests that the Commission's lack of a similar declaration by permanent regulation promotes "aggressive" wind farm designs. Is that the goal?
[2] As outlined at p. 19 of *Post-Hearing Brief of Intervenors Garry Ehlebracht, et al.*

When this Commission relies on the "industry standard" now conveniently supplied under each Zoning Ordinance (more or less), is there no concern arising in Pierre about those pieces of the German standard so clearly missing at the County level? "Apparently not" would seem to be the historic answer, since this Commission – with the exception of imposing a conservative annual and daily limit in *Prevailing Winds* – has otherwise adhered to the "industry standards," as have been selectively imported and promoted by the wind development industry. Imposing one level of "Effects" to one wind farm, while deploying another level to others, seems inherently unreasonable.

The Effects about to be approved by this Commission - noise (at these levels) and Shadow Flicker (of any duration) - are neither presently nor historically commonplace in the area of Goodwin. These Effects, once coming to fruition, will permanently and dramatically change the enjoyment, use and development of the homes and properties of the Goodwin Group.

As such, this writer expects this permitted intrusion of their homes and properties (enthusiastically supported by experts, Staff and Applicant alike), an adverse use that would not otherwise transpire *but for* the final order of this Commission, will necessarily be challenged in Circuit Court as a violation of the property rights claimed by the Goodwin Group. The final decision from this Commission will function just as if it were an "easement" for commencing this intrusive use, much like the very instruments fashioned for that express purpose by Applicant's own legal department.

Very truly yours,
ARVID J. SWANSON P.C.

A.J. Swanson

c: All persons listed in the current Service List, as reflected in the Certificate of Service submitted herewith, including counsel for Applicant:

Miles Schumacher, Esq. (via Email Only)
LYNN JACKSON SHULTZ & LEBRUN, PC
mschumacher@lynnjackson.com

Garry Ehlebracht, *et al.*

BEFORE THE PUBLIC UTILITIES COMMISSION
STATE OF SOUTH DAKOTA

In the Matter of the Application by CROWNED RIDGE WIND II, LLC *for a Permit of a Wind Energy Facility in Deuel, Grant and Codington Counties*	))))	Docket EL19-027

CERTIFICATE OF SERVICE

A true copy of correspondence, dated March 16, 2020, addressed to Executive Director Van Gerpen (3 pages), was transmitted (the date below) by undersigned, as counsel for Intervenors Garry Ehlebracht, *et al.* to each of the following presently appearing on the Commission's Service List in this matter:

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amber@uniformoutlet.net
(605) 756-4119

Dated at Canton, South Dakota, this 16th day of March 2020.

Respectfully submitted,

A.J. Swanson
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605-743-2070
E-mail: aj@ajswanson.com

/s/ A.J. Swanson
A.J. Swanson
State Bar of South Dakota # 1680

Attorney for,
GARRY EHLEBRACHT, STEVEN GREBER, MARY GREBER, RICHARD RALL, AMY RALL, and LARETTA KRANZ, *Intervenors*

From: SDWEA Office <office@sdwea.org>
Sent: Monday, March 16, 2020 4:46 PM
To: PUC-PUC <PUC@state.sd.us>
Subject: [EXT] Letter of Support - Crowned Ridge II Project

Greetings,

Please accept the attached letter of support for the Crowned Ridge II Project currently being considered as Docket EL20-002 before the Commission.

The South Dakota Wind Energy Association appreciates your consideration of our support for this project.

Thank you.

Jennifer Stalley, Executive Director
South Dakota Wind Energy Association
PO Box 38
Pierre, SD 57501
Fax: 888-425-3032
Phone: 605-224-9016
www.sdwea.org

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ADMINISTRATIVE RECORD - Scan 3 - Page 63 of 174

South Dakota Wind Energy Association SDWEA

PO Box 38, Pierre, SD 57501

March 16, 2020

South Dakota Public Utilities Commission
500 East Capitol Avenue
Pierre, SD 57501

SUBJECT: Docket EL20-002

Dear Commissioners Hanson, Fiegen, and Nelson,

As the fifth windiest state in the nation, South Dakota as the opportunity to be a leader in renewable energy and energy independence. The Crowned Ridge Wind II Energy Center is the latest effort to promote the growth and development of wind as an energy source, leading to numerous benefits for local communities and the state at large.

The development of wind energy in South Dakota improves the state's economy by expanding the tax base and providing good paying jobs. It also invites further investment into the state as businesses are increasingly leaning on renewable energy to power their operations. The millions generated by increased tax revenue help schools provide technology and supplies for students and support teachers in their classrooms. South Dakota communities benefit by putting that tax revenue to use repairing roads and strengthening infrastructure.

Wind energy is also one of the cleanest and cost-effective ways to power our homes, schools, and businesses. South Dakota currently generates over 25% of our state's electricity from wind. The emission-free energy produced by wind turbines is much cleaner than traditional sources of energy and offsets any emissions created by the construction of the wind farm. This clean energy not only benefits the environment, but also public health as less South Dakota's will experience the adverse health effects associated with pollution.

It is for these, and many other, reasons that I urge you to approve the Crowned Ridge Wind II Energy Center. This newest development in wind energy will only bring good things to our communities and state.

Respectfully,

/s/ Jennifer Stalley

Jennifer Stalley
Executive Director
South Dakota Wind Energy Association

P.O. Box 38, Pierre, SD 57501 ● Phone: (605) 224-9016 ● Fax: (888) 425-3032 ● office@sdwea.org

South Dakota Public Utilities Commission Meeting
March 17, 2020, at 9:30 A.M. CDT
Room 413, Capitol Building
Pierre, South Dakota

NOTE: Docket participants who wish to join this meeting by conference call should contact the Commission at 605-773-3201 by 5:00 p.m. CDT on Monday, March 16, 2020, to reserve a phone line. Lines are limited and assigned on a first come, first served basis, subject to possible reassignment to accommodate persons who must appear in a proceeding. Ultimately, if you wish to participate in docket discussion at the Commission Meeting and a line is not available, you may have to appear in person.

NOTE: To listen to the Commission Meeting live please go to the PUC's website www.puc.sd.gov and click on the LIVE link on the home page. The Commission requests persons who will only be listening to proceedings and not actively appearing in a case listen via the webcast to free phone lines for those who have to appear. The Commission meetings are archived on the PUC's website under the Commission Actions tab. Click on "Commission Meeting Archives," to access the recordings.

NOTE: Notice is further given to persons with disabilities that this Commission meeting is being held in a physically accessible place. If you have special needs, please notify the Commission and we will make all necessary arrangements.

AGENDA OF COMMISSION MEETING

Administration

1. Approval of Minutes of the Commission Meeting Held on March 6, 2020, and the Ad Hoc Commission Meeting Held on February 27, 2020 (Staff: Macy Jo Murren)

Consumer Reports

1. Status Report on Consumer Utility Inquiries (Consumer Affairs: Deb Gregg)

Telecommunications

1. TC20-001 In the Matter of the Application by Qwest Corporation dba CenturyLink QC for Approval of Waiver of Switched Access Cost Study (Staff Analyst: Brittany Mehlhaff; Staff Attorney: Amanda Reiss)

On January 28, 2020, the Commission received an application by Qwest Corporation dba CenturyLink QC (CenturyLink) for approval of a waiver of the requirement to perform a switched access cost study pursuant to ARSD 20:10:27:02. ARSD 20:10:27:07 requires that a carrier's carrier submit cost data in support of its switched access service tariff no less than once every three years. ARSD 20:10:27:02 provides that the Commission, for good cause shown, may either on its own motion or by application from a carrier's carrier, temporarily waive or suspend any rule in chapter 20:10:27. CenturyLink requests a waiver of the cost study requirement because (1) many access rates are limited by the federal ruling in the USF/ICC Transformation Order; (2) producing such a study is costly and

consumes a great deal of resources; (3) CenturyLink does not intend to increase access rates at this time; and (4) preliminary analysis based on past studies indicates that a cost study would likely justify higher rates than those from the last submitted study. On March 9, 2020, CenturyLink responded to staff's data requests.

TODAY, shall the Commission grant the Waiver of the Switched Access Cost Study? OR how shall the Commission proceed?

Electric

1. EL18-004 In the Matter of the Petition of Northern States Power Company dba Xcel Energy for Approval of a Proxy Pricing Proposal to Adjust Certain Fuel Clause Rider Power Purchase Costs (Staff Analysts: Brittany Mehlhaff, Jon Thurber; Staff Attorney: Kristen Edwards)

On January 29, 2018, the Commission received a filing from Northern States Power Company dba Xcel Energy (Xcel) for approval of a proxy pricing proposal to adjust certain fuel clause rider power purchase costs. Xcel proposes a proxy pricing solution to address the costs associated with a limited number of existing wind and solar projects that currently flow through the South Dakota fuel clause. Xcel states its recommended proposal provides customers with a reasonable degree of certainty regarding certain costs currently recovered through the fuel clause, reflects a balance between ratepayers and Xcel, and maintains the basic tenets of the integrated system and associated benefits. Xcel requests approval of the proxy pricing proposal beginning retroactively on December 1, 2016, which, consistent with the Settlement Stipulation in Docket EL16-037, is the date of the initial suspension of Xcel's fuel clause adjustment. On December 18, 2019, Xcel and staff filed a Joint Motion for Approval of Settlement Stipulation and Settlement Stipulation. On January 17, 2020, Xcel and staff filed a Joint Motion for Approval of Revised Settlement Stipulation and Revised Settlement Stipulation. Staff filed its Memorandum Supporting Revised Settlement Stipulation on February 12, 2020.

TODAY, shall the Commission grant the Joint Motion for Approval of Revised Settlement Stipulation and approve the terms and conditions stipulated therein?

2. EL19-003 In the Matter of the Application by Crowned Ridge Wind, LLC for a Permit of a Wind Energy Facility in Grant and Codington Counties (Staff Analysts: Darren Kearney, Jon Thurber, Eric Paulson; Staff Attorneys: Kristen Edwards, Amanda Reiss)

On January 30, 2019, the Commission received an Application for a Facility Permit for a wind energy facility (Application) from Crowned Ridge Wind, LLC (Crowned Ridge or Applicant) to construct a wind energy conversion facility to be located in Grant County and Codington County, South Dakota (Project). Applicant has executed a power purchase agreement with Northern States Power Company (NSP) to sell NSP the full output of the Project. The Project became operational in 2020. Applicant estimates the total cost of the Project to be $400 million. On July 26, 2019, the Commission issued a Final Decision and Order Granting Permit to Construct Facility; Notice of Entry. On February 3, 2020, Amber Christenson, Patrick Lynch, Melissa Lynch, Kristi Mogen, and Allen Robish (Intervenors) filed a Motion to Revoke Docket EL19-003. On February 24, 2020, Commission staff filed Staff's Response to Motion to Revoke.

TODAY, shall the Commission grant the Intervenors' Motion to Revoke Docket EL19-003? OR, how shall the Commission proceed?

3. EL19-027 In the Matter of the Application by Crowned Ridge Wind II, LLC for a Permit of a Wind Energy Facility in Deuel, Grant and Codington Counties (Staff Analysts: Darren Kearney, Jon Thurber, Eric Paulson; Staff Attorneys: Kristen Edwards, Amanda Reiss)

On July 9, 2019, the Commission received an Application for a Wind Energy Facility Permit (Application) from Crowned Ridge Wind II, LLC (CRW II), a subsidiary of NextEra Energy Resources, LLC. CRW II proposes to construct a wind energy facility to be located in Codington, Deuel and Grant counties, South Dakota (Project). The Project would be situated within an approximately 60,996-acre project area, located east of the city of Watertown (Project Area). The Project Area is in Waverly, Kranzburg North, Kranzburg South, Troy, Rome, Goodwin, and Havana townships. The total installed capacity of the Project would be approximately 301 megawatts of nameplate capacity. The proposed Project includes up to 132 wind turbine generators, access roads to turbines and associated facilities, underground 34.5-kV electrical collector lines, underground fiber-optic cable, a 34.5-kV to 230-kV collection substation, up to two permanent meteorological towers, and an operations and maintenance facility. The Project would interconnect to the electric grid at the Big Stone South 230-kV Substation using the Crowned Ridge II 5-mile 230-kV transmission line that was approved in Docket EL18-019 and the Crowned Ridge 34-mile generation tie line that was approved in Docket EL17-050. The Project is expected to be completed in 2020. CRW II has executed a purchase and sale agreement with Northern States Power Company dba Xcel Energy (NSP) to sell NSP the Project upon commercial operation. CRW II estimates the total construction cost to be $425 million. The Commission has granted party status to nine individuals (Intervenors). An evidentiary hearing was held February 4 - 6, 2020.

TODAY, shall the Commission grant, deny, or grant with conditions, a permit for the construction of a wind energy facility to Crowned Ridge Wind II, LLC pursuant to SDCL 49-41B-25? OR, how shall the Commission proceed?

4. EL20-002 In the Matter of Commission Staff's Request for an Order to Show Cause regarding Crowned Ridge Wind, LLC (Staff Analysts: Darren Kearney, Jon Thurber, Eric Paulson; Staff Attorneys: Kristen Edwards, Amanda Reiss)

On July 26, 2019, in Docket EL19-003, the Commission issued to Crowned Ridge, LLC (Crowned Ridge) a Final Decision and Order Granting Permit to Construct Facility; Notice of Entry with Permit Conditions (Permit) for the Crowned Ridge Wind facility in Grant and Codington Counties. On January 13, 2020, staff filed a Petition to Show Cause requesting the Commission to issue an Order to Show Cause requiring Crowned Ridge to come forward and show cause as to why it should not be found in violation of SDCL 49-41B-25.2 and Permit Condition 2 for failure to equip the Crowned Ridge Wind facility with an aircraft detection lighting system (ADLS). The matter was deferred at the January 21, and February 3, 2020, Commission meetings.

TODAY, shall the Commission issue an Order to Show Cause? OR, how shall the Commission proceed?

5. EL20-003 In the Matter of the Filing by Otter Tail Power Company for Approval of Tariff Revisions to Its Rates for Small Power Production and Cogeneration (Staff Analyst: Brittany Mehlhaff; Staff Attorney: Amanda Reiss)

On January 31, 2020, the Commission received a filing from Otter Tail Power Company (Otter Tail) for approval of tariff revisions to its Small Power Producer Riders, Sections 12.01, 12.02, and 12.03. Otter Tail proposes to update the energy and capacity payments as well as the renewable energy

credits. These payments are made to small qualifying facilities within the Otter Tail service area. Otter Tail requests an effective date of April 1, 2020.

TODAY, shall the Commission approve the proposed revisions to Otter Tail Power Company's rates for Small Power Production and Cogeneration for Qualifying Facilities?

6. EL20-006 In the Matter of the Filing by MidAmerican Energy Company for Approval of Tariff Revisions to Its 2019 Transmission Cost Recovery Reconciliation and 2020 Transmission Cost Recovery Factors (Staff Analyst: Patrick Steffensen; Staff Attorney: Kristen Edwards)

On February 13, 2020, the Commission received MidAmerican Energy Company's (MidAmerican) filing for approval of tariff revisions to its Transmission Cost Recovery (TCR) 2019 Reconciliation and 2020 New Factor Calculation. MidAmerican's TCR mechanism was established in the company's most recent rate case, EL14-072. With this filing, MidAmerican is establishing new TCR rates based on true ups to the actual over/under recovery from 2019, 2020 forecasted MISO transmission expense, and the forecast over/under recovery for January through March of 2020. MidAmerican requests the new TCR factors have an effective date of April 2, 2020.

TODAY, shall the Commission approve the revised Transmission Cost Recovery rate factors and revised tariff sheet with an effective date of April 2, 2020?

7. EL20-009 In the Matter of the Filing by Montana-Dakota Utilities Co., a Subsidiary of MDU Resources Group Inc., for Approval of the Annual Update to Its Infrastructure Rider Rate (Staff Analyst: Patrick Steffensen; Staff Attorney: Amanda Reiss)

On February 28, 2020, the Commission received a petition from Montana-Dakota Utilities Co. (MDU) for approval of the annual update to its Infrastructure Rider Rate, pursuant to the terms of the Company's Infrastructure Rider Rate 56 tariff. MDU is proposing to increase the tariff rate to $0.00846 per kWh for the rate period covered by this filing. Under the Infrastructure Rider Rate 56 tariff, MDU shall update the Infrastructure Rider annually to be effective each May 1.

TODAY, shall the Commission assess a filing fee in the amount of up to $250,000 to account for actual expenses incurred in review of this filing commencing from the filing date?

8. EL20-010 In the Matter of the Filing by Montana-Dakota Utilities Co., a Subsidiary of MDU Resources Group Inc., for Approval of the Annual Update to Its Transmission Cost Recovery Rider Rate (Staff Analyst: Brittany Mehlhaff; Staff Attorney: Amanda Reiss)

On February 28, 2020, Montana-Dakota Utilities Co. (MDU) filed for approval of its annual update to its Transmission Cost Recovery (TCR) Rider. MDU states the proposed tariff change is necessary to reflect the projected 2020 charges assessed to MDU for transmission-related services provided by the Midcontinent Independent System Operator (MISO) and Southwest Power Pool (SPP), along with the projected revenues and/or credits received by MDU for transmission-related services. In addition, MDU is including the projected 2020 revenue requirements for two transmission projects in its projected 2020 TCR update. MDU proposes a TCR Rider rate of $0.00513 per kWh which is a decrease of $0.00002 per kWh from that currently authorized.

TODAY, shall the Commission assess a filing fee in the amount of up to $50,000 to account for actual expenses incurred in review of this filing commencing from the filing date?

Items for Commission Discussion

Public Comment

Individuals who wish to make public comments to the commission may do so in person during this time. All who offer public comment are requested to sign in at the commission meeting. Time limits for comments may be determined at the discretion of the commission.

Announcements

1. The PUC will host and commissioners and staff will attend the South Dakota/North Dakota Pipeline Safety Operators Training, March 24-25, 2020, at the Ramkota Conference Center, Sioux Falls, South Dakota.

2. PUC commissioners and staff will meet with consumers at the Black Hills Home Show, March 27-29, 2020, at the Rushmore Plaza Civic Center, Rapid City, South Dakota.

3. The next regular commission meeting will be Tuesday, March 31, 2020, at 9:30 a.m. CDT in Room 413 at the State Capitol Building, Pierre, South Dakota.

4. Commissioners will attend the Center for Public Utilities' Current Issues Forum, April 5-8, 2020, at the Eldorado Hotel, Santa Fe, New Mexico.

5. Commission meetings are scheduled for April 14 and 29, 2020.

/s/Cindy Kemnitz .
Cindy Kemnitz
Finance Manager
puc@state.sd.us
March 10, 2020

South Dakota Public Utilities Commission Meeting
March 17, 2020, at 9:30 A.M. CST
Telephonic
Pierre, South Dakota

MINUTES OF THE COMMISSION MEETING

Joining the meeting by telephone were:
Commissioner Gary Hanson called the meeting to order. Commissioners: Chris Nelson and Kristie Fiegen; Commission Attorneys: Adam de Hueck and Karen Cremer; Commission Advisor: Greg Rislov; Staff Attorneys: Kristen Edwards and Amanda Reiss; Staff Analysts: Darren Kearney, Jon Thurber, Patrick Steffensen, Brittany Mehlhaff, and Eric Paulson; Consumer Affairs Manager: Deb Gregg and Staff: Kaitlyn Baucom.

Chris Shaw, Ryan Long, Lisa Peterson, P.J. Martin, Northern States Power Company dba Xcel Energy Company; Jason Topp, Qwest Corporation dba CenturyLink; Kallie Bentz, Katelyn Lynch-Butcher, and Stephanie Olsen, MidAmerican Energy Company; Jay Haley, Kim Wells, Tyler Wilhelm, Richard Lampeter, Sarah Sappington, Mark Thompson & David Gill Crowned Ridge Wind, LLC; Svetlana Fedje & Randy Synstelien, Otter Tail Power Company; Travis Jacobson, Montana-Dakota Utilities Company; Hilary Morey, South Dakota Game, Fish and Parks; Amber Christenson, self; Kristie Mogen, self; and David Hessler, Hessler Associates, Inc. consultant for South Dakota Public Utilities Commission Staff; Brian Murphy, NextEra Energy Resources, LLC; and Miles Schumacher, Lynn, Jackson, Shultz and Lebrun, PC.

Administration

1. Approval of Minutes of the Commission Meeting Held on March 6, 2020, and the Ad Hoc Commission Meeting Held on February 27, 2020 (Staff: Macy Jo Murren)

Commissioner Nelson moved to approve the minutes of the Commission meetings held on February 27, and March 6, 2020. Motion carried 3-0.

Consumer Reports

1. Status Report on Consumer Utility Inquiries (Consumer Affairs Manager: Deb Gregg)

The Commission received a total of 28 contacts since the last report was prepared for the March 6, 2020 Commission meeting.

Five contacts were related to telecommunication services, four contacts were related to electrical services, two contacts were related to natural gas services, two contacts were related to the Do Not Call Registry, and four contacts were related to issues not regulated by the PUC. The Grain Warehouse program had 11 contacts.

231 of the 237 contacts received in 2020 have been resolved.

Telecommunications

1. TC20-001 In the Matter of the Application by Qwest Corporation dba CenturyLink QC for Approval of Waiver of Switched Access Cost Study (Staff Analyst: Brittany Mehlhaff; Staff Attorney: Amanda Reiss)

Mr. Jason Topp, Qwest Corporation dba CenturyLink QC (CenturyLink), asked that the Commission grant the waiver of the switched access cost study. Ms. Brittany Mehlhaff, staff analyst, recommended the Commission grant CenturyLink's request for a waiver of the requirement to file a switched access cost study until such time as the Commission otherwise orders.

Commissioner Nelson moved to grant the Waiver of the Switched Access Cost Study until such time as the Commission may otherwise order and to direct staff to pursue the possibility of a future rule making. Motion Carried 3-0.

Electric

1. EL18-004 In the Matter of the Petition of Northern States Power Company dba Xcel Energy for Approval of a Proxy Pricing Proposal to Adjust Certain Fuel Clause Rider Power Purchase Costs (Staff Analysts: Brittany Mehlhaff, Jon Thurber; Staff Attorney: Kristen Edwards)

A lengthy discussion took place for docket EL18-004. An audio of the discussion can be found on the PUC website under Commission Actions, Commission Meeting Archives, 2020, March 17, 2020, recording located at: https://puc.sd.gov/commission/media/2020/puc03172020.mp3.

Commissioner Fiegen moved to grant the Joint Motion for Approval of Revised Settlement Stipulation and approve the terms and conditions stipulated therein, effective April 1, 2020, with interest applied to the amount to be refunded to Xcel's customers at a rate of 7.22%. Motion carried 3-0.

2. EL19-003 In the Matter of the Application by Crowned Ridge Wind, LLC for a Permit of a Wind Energy Facility in Grant and Codington Counties (Staff Analysts: Darren Kearney, Jon Thurber, Eric Paulson; Staff Attorneys: Kristen Edwards, Amanda Reiss)

A lengthy discussion took place for docket EL19-003. An audio of the discussion can be found on the PUC website under Commission Actions, Commission Meeting Archives, 2020, March 17, 2020, recording located at: https://puc.sd.gov/commission/media/2020/puc03172020.mp3.

Commissioner Hanson moved to deny the Intervenors' Motion to Revoke. Motion carried 3-0.

3. EL19-027 In the Matter of the Application by Crowned Ridge Wind II, LLC for a Permit of a Wind Energy Facility in Deuel, Grant and Codington Counties (Staff Analysts: Darren Kearney, Jon Thurber, Eric Paulson; Staff Attorneys: Kristen Edwards, Amanda Reiss)

A lengthy discussion took place for docket EL19-027. An audio of the discussion can be found on the PUC website under Commission Actions, Commission Meeting Archives, 2020, March 17, 2020, recording located at: https://puc.sd.gov/commission/media/2020/puc03172020.mp3.

Commissioner Nelson moved to grant the permit to construct a wind energy facility to Crowned Ridge Wind II, LLC pursuant to SDCL 49-41B-25 and attach the conditions as found in Staff Exhibit S7.

Commissioner Nelson then moved to amend the main motion with the conditions set forth in Nelson's Proposed Amendments to Staff Exhibit S7.

Commissioner Fiegen moved to amend Commissioner Nelson's motion to amend to include in Permit Condition #26(c) the following: The Public Liaison Officer will assist in contacting non-participating landowners for permission to test noise levels on their property. Motion to amend Commissioner Nelson's motion to amend the main motion carried 3-0.

Commissioner Hanson moved to amend Commissioner Nelson's motion to amend, by revising paragraph 10 of Nelson's Proposed Condition Amendments to add "and SD GF&P" following "Crowned Ridge Wind, LLC". Motion to amend Commissioner Nelson's motion to amend, as amended, carried 3-0.

Commissioner Hanson moved to amend Commissioner Nelson's motion to amend, by revising Permit Condition #29 to supplant "one year" with "two years". Motion to amend Commissioner Nelson's motion to amend failed 1-2.

Commissioner Hanson moved to amend Commissioner Nelson's motion to amend, by leaving in Permit Condition #40 as proposed in Staff Exhibit S7. Motion to amend Commissioner Nelson's motion to amend failed 1-2.

Commissioner Nelson's motion to amend, as amended, carried 3-0.

Commissioner Hanson moved to amend the main motion as amended by revising Permit Condition #22 to supplant "calendar" with "business". Motion to amend the main motion as amended carried 3-0.

Main motion as amended carried 3-0.

4. EL20-002 In the Matter of Commission Staff's Request for an Order to Show Cause regarding Crowned Ridge Wind, LLC (Staff Analysts: Darren Kearney, Jon Thurber, Eric Paulson; Staff Attorneys: Kristen Edwards, Amanda Reiss)

A lengthy discussion took place for docket EL20-002. An audio of the discussion can be found on the PUC website under Commission Actions, Commission Meeting Archives, 2020, March 17, 2020, recording located at:
https://puc.sd.gov/commission/media/2020/puc03172020.mp3.

Commissioner Nelson moved to issue an order to show cause and allow staff the flexibility to determine the procedural schedule if needed. Commissioner Fiegen moved to amend the Motion to defer the matter until the appeal has concluded. Motion to amend failed 1-2. Main Motion carried 2-1, Commissioner Fiegen dissenting.

5. EL20-003 In the Matter of the Filing by Otter Tail Power Company for Approval of Tariff Revisions to Its Rates for Small Power Production and Cogeneration (Staff Analyst: Brittany Mehlhaff; Staff Attorney: Amanda Reiss)

Ms. Svetlana Fedje, Otter Tail Power Company, asked that the Commission approve the proposed tariff revisions to its rates for small power production and cogeneration qualifying facilities. Ms. Brittany Mehlhaff, staff analyst, recommended that the Commission approve the tariff revisions as filed on February 27, 2020, with an effective date of April 1, 2020.

Commissioner Hanson moved to approve the proposed revisions to Otter Tail Power Company's rates for Small Power Production and Cogeneration for Qualifying Facilities with an effective date April 1, 2020. Motion carried 3-0.

6. EL20-006 In the Matter of the Filing by MidAmerican Energy Company for Approval of Tariff Revisions to Its 2019 Transmission Cost Recovery Reconciliation and 2020 Transmission Cost Recovery Factors (Staff Analyst: Patrick Steffensen; Staff Attorney: Kristen Edwards)

Ms. Katelyn Lynch-Butcher, MidAmerican Energy Company (MidAmerican), asked that the Commission approve the revised Transmission Cost Recovery rate factors and revised tariff sheet with an effective date of April 2, 2020. Mr. Patrick Steffensen, staff analyst, recommended that the Commission approve MidAmerican's Request.

Commissioner Nelson moved to approve the revised Transmission Cost Recovery rate factors and revised tariff sheet with an effective date of April 2, 2020. Motion carried 3-0.

7. EL20-009 In the Matter of the Filing by Montana-Dakota Utilities Co., a Subsidiary of MDU Resources Group Inc., for Approval of the Annual Update to Its Infrastructure Rider Rate (Staff Analyst: Patrick Steffensen; Staff Attorney: Amanda Reiss)

Mr. Travis Jacobson, Montana-Dakota Utilities Co., a Subsidiary of MDU Resources Group Inc (MDU), asked that the Commission grant a filing fee in the amount of up to $250,000 to account for actual expenses incurred in review of this filing commencing from the filing date. Ms. Amanda Reiss, staff attorney, requested that the Commission assess MDU's filing fee.

Commissioner Hanson moved to grant a filing fee in the amount of up to $250,000 to account for actual expenses incurred in review of this filing commencing from the filing date. Motion carried 3-0.

8. EL20-010 In the Matter of the Filing by Montana-Dakota Utilities Co., a Subsidiary of MDU Resources Group Inc., for Approval of the Annual Update to Its Transmission Cost Recovery Rider Rate (Staff Analyst: Brittany Mehlhaff; Staff Attorney: Amanda Reiss)

Ms. Amanda Reiss, staff attorney, requested that the Commission assess a filing fee in the amount of up to $50,000 to account for actual expenses incurred in review of this filing commencing from the filing date. Mr. Travis Jacobson, Montana-Dakota Utilities Co., a Subsidiary of MDU Resource Group Inc. (MDU), stated MDU did not object to Staff's request.

Commissioner Hanson moved to assess a filing fee in the amount of up to $50,000 to account for actual expenses incurred in review of this filing commencing from the filing date. Motion carried 3-0.

There being no further business, at the hour of 1:30 p.m., the South Dakota Public Utilities Commission meeting adjourned.

/s/Macy Jo Murren
Macy Jo Murren
Administrative Specialist
puc@state.sd.us
March 17, 2020

THE PUBLIC UTILITIES COMMISSION

OF THE STATE OF SOUTH DAKOTA

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The following transcript of teleconferenced proceedings was held in the above-entitled matter at the South Dakota State Capitol Building, 500 East Capitol Avenue, Pierre, South Dakota, on the 17th day of March, 2020, commencing at 9:30 a.m.

CHAIRMAN HANSON: EL19-027. And I need to know from Commissioners or parties if anyone needs to take a break at this point.

COMMISSIONER FIEGEN: I'm good.

MR. SCHUMACHER: That would be welcomed, Chairman Hanson. A two-minute break would be very nice.

CHAIRMAN HANSON: Well, if we have a break, people will need to call and (Inaudible) probably. So we're going to give it -- I show 11:07. So we will take it to 11:20. And I'll try to start this again at 11:20.

So if you will place your phones on mute and remember not to have chats around open mics., place yourselves on mute, and we'll start again at 11:20.

(A short recess is taken.)

CHAIRMAN HANSON: I will call the meeting of the South Dakota Public Utilities Commission for March 17, 2020, back to order. And the first item on the agenda is to make certain that I can be heard and that Commissioners are on the line.

Commissioner Fiegen, are you on the line?

COMMISSIONER FIEGEN: Commissioner Fiegen's present. Thank you.

CHAIRMAN HANSON: Commissioner Nelson, are you on the line?

COMMISSIONER NELSON: I'm here, and you're

sounding good.

CHAIRMAN HANSON: Great. I'll check with Crowned Ridge.

MR. SCHUMACHER: Miles Schumacher is here. Yes. Thank you, Commissioners.

CHAIRMAN HANSON: Are you aware of any of your parties that you need to have on the line that are not on the line? Are you good to go?

MR. SCHUMACHER: I'll let Brian speak for the rest of the group with him. Are you there?

MR. MURPHY: I'm here. Chairman Hanson, we have everybody on the phone that we need.

CHAIRMAN HANSON: Thank you, Mr. Murphy.

And, Staff, who will be representing Staff on this? Are you on the line?

MS. REISS: This is Amanda. I am on the line. And I believe we have Ms. Morey and Mr. Hessler and Mr. Kearney on as well.

CHAIRMAN HANSON: All right. And, Ms. Christenson, Ms. Mogen, Mr. Robish, whoever is representing your group, the Intervenors, are you on the line?

MS. CHRISTENSON: This is Amber Christenson. Allen Robish is not available today.

CHAIRMAN HANSON: Okay. Thank you.

And, Ms. Christenson, will you be the one representing the Intervenors?

MS. CHRISTENSON: We aren't represented as a group in this docket, but I do believe I'm the only Intervenor speaking.

CHAIRMAN HANSON: Thank you. Ms. Mogen, is that correct?

MS. MOGEN: Yes. Amber will be speaking for me.

CHAIRMAN HANSON: Thank you.

So in Docket EL19-027, a reminder that this is being transcribed so identify yourself before speaking. Cheri Wittler is transcribing the discussion so, please, if you plan to read something, pace yourself slow enough so people can follow through and type it.

In the Matter of the Application by Crowned Ridge Wind II, LLC for a Permit of a Wind Energy Facility in Deuel, Grant, and Codington Counties, the question before the Commission is shall the Commission grant, deny, or grant with conditions a permit for the construction of a wind energy facility to Crowned Ridge Wind II, LLC pursuant to SDCL 49-41B-25? Or how shall the Commission proceed?

We will go through this discussion today giving five minutes to each one of the parties, and then Crowned Ridge will have three minutes for a rebuttal.

We'll begin with Crowned Ridge. Then we'll go to Staff and then to the Intervenors. Excuse me. I misspoke. We will go to Crowned Ridge first and then Intervenors.

Mr. Swanson sent a letter indicating that he would not be here. I will ask at this time, Mr. Swanson, have you joined us?

So after the Intervenors, then we'll go to Staff. Then we'll go back to Crowned Ridge for their three minutes.

So we'll begin now with Crowned Ridge for your presentation.

MR. SCHUMACHER: Thank you, Chairman Hanson. Miles Schumacher for Crowned Ridge Wind II. The weight of the record in this proceeding shows that the Applicant has met its burden of proof.

On the first element of 49-41B-22, the project will comply with all applicable laws and rules, including the county setbacks required in Deuel, Grant, and Codington Counties.

Contrary to Intervenors' claim, the record in this proceeding shows the project complies with both Grant County ordinances. Intervenors themselves submitted as Exhibit AC-19 Crowned Ridge's Sound and Shadow Flicker Study that shows the project is in

compliance with the older Grant County ordinance.

(Inaudible) sound studies that show it will comply with the new ordinance, and these studies show compliance using cumulative impacts not to exceed 45 dBA for nonparticipants, while the old ordinance that Intervenors point to had a threshold for all receptors of 50 dBA.

Therefore, the only potential cumulative impacts that may have not been studied are on accessory structures such as barns where accumulative impact studies are not required by any state or county regulation.

By showing that we will meet both ordinances, the Applicant has met its burden of proof that it will comply with all applicable laws and rules.

The evidence also shows the project will not pose a threat of serious injury to the environment, nor to the social and economic condition of inhabitants, which is demonstrated by the Applicant being granted conditional use permits by the counties.

In addition, there is substantial evidence that the project will not pose a threat of serious injury to the environment or cultural resources by way of studies, surveys, and consultations with agencies and tribes.

Further, the Applicant has committed to equip

the project with an FAA approved ADLS for the life of the project. In this regard, on March 12, 2020, the Applicant filed with the FAA its application for approval of the ADLS.

In addition, Staff filed with its Brief an Amended Condition 29, which addresses postconstruction avian and bat mortality monitoring, which Applicants support and request that the Commission adopt.

Turning to economic impacts, the project will produce benefits to the community, including the payment of property taxes, lease payments, temporary jobs for 250 construction workers, and up to 7 to 12 permanent workers stationed in South Dakota.

As Applicant noted in its Brief in Footnote 14, there was one easement option that needed to be executed to maintain turbine location No. 85. That easement option has now been renewed and executed.

The record also shows the project will not substantially impair the health, safety, or welfare of the inhabitants. Applicant has appropriately minimized shadow flicker to 30 hours annually and the sound level to no more than 45 dBA at any nonparticipant's residence and no more than 50 dBA at any participant's residence.

Further, consistent with witness Hessler's testimony, Applicant agreed to use four alternative

turbine sites as a way to further reduce (Inaudible) sound.

Applicant presented a Ph.D. and medical doctor, both with many years of relevant experience that testified that the project will not substantially impair the health or welfare of the inhabitants. There is no evidence to the contrary.

Without any expert testimony in support, Intervenors argue that the Commission should limit nonparticipant sound to 40 dBA and shadow flicker to 15 hours annually and 15 minutes per day.

Similarly, the Ehlebracht Intervenors filed a legal brief replete with baseless legal notions on common law, trespass, and governmental takings and inappropriately cited testimony of witnesses in other dockets never proffered for cross-examination in this proceeding, and cited and quoted the Stanton NARUC paper that was objected to and not allowed to be part of the record here.

Accordingly, the positions of Intervenors are not supported by substantial evidence and have no legal basis and should not be relied upon in making a decision in this proceeding.

Applicant has presented substantial credible evidence showing the project will not substantially

impair the health, safety, or welfare of the inhabitants. Applicant has also shown that it will meet or exceed required setbacks established for safety and implement safety practices during construction, operation, and maintenance (Inaudible) the operation of the project 24 hours a day seven days a week. Thus, the evidence also shows that the project will not substantially impair safety.

The record also demonstrates that the proposed project will (Inaudible) --

CHAIRMAN HANSON: Slow up just a smidgen there, please.

MR. SCHUMACHER: Yes. Thank you.

The record also demonstrates that the proposed project will not unduly interfere with the orderly development of the region, which is supported by the granting of conditional use permits for the project by the counties.

In summary, Applicant has met its burden of proof and, thus, respectfully requests that the Commission grant it an energy facility permit.

Thank you.

CHAIRMAN HANSON: Thank you. And we will now turn -- I'll ask one more time if Mr. Swanson is on the line.

I don't believe anyone has joined us.

So we will turn to Intervenors. And I believe, Ms. Christenson, as I understand, you're carrying the load here today.

MS. CHRISTENSON: Thank you. Amber Christenson.

It is not -- excuse me. It is not for the Intervenors to establish the Applicant does not meet requirements for the permit. The burden of proof rests solely on the Applicant.

You as Commissioners are here to protect South Dakota by ensuring the proposed project will comply with all laws and rules. First and foremost, also you must ensure this project will not pose a threat of serious injury to the environment, nor will this project impair the health, safety, or welfare of the inhabitants. This Applicant has not met its burden in all three of the aforementioned instances.

There is no reliable sound study for the Commission to review. As referenced in my posthearing brief and the incorporated Findings of Fact and Conclusions of Law, the sound studies presented by the Applicant do not provide all necessary criteria for review. Accuracy is required by South Dakota rules. The Applicant just admitted during Mr. Schumacher's speech that their sound study is not complete.

The cement batch plant poses serious concerns for public health and safety and air quality. The Applicant is required by state law to provide evidence the project will comply with air quality standards and regulations. Yet they submitted no proof.

The safety of the public will be jeopardized by the placement of the proposed batch plant. During the recent construction of Highway 212 when this site was used as a batch plant Highway 212 was closed to through traffic. This highway is a major route for interstate traffic, and this project is scheduled to be built during peak tourism season.

Despite the plain language of SDCL 49-41B-25.2, the Applicant has not even applied for FAA approval for ADLS lighting. The Applicant has also testified to the Commission that the project is not funded. The abandonment of a half-built project could seriously impact the welfare of the residents.

The Applicant testified there was no profit and loss statement or balance sheet for the past three years. Yet there was a check issued by Crowned Ridge II to Grant County for their Application fee. And truth and accuracy is required by South Dakota rules.

The Applicant has not proven that it and its subcontractors are insured. The welfare of the

inhabitants shall be protected.

The Applicant has not provided an estimate of expected efficiency of the proposed project. The Applicant has not provided evidence that the project will comply with the standards and regulation of disposal of solid waste. The Applicant has no viable waste plan. The Applicant did not prove waste was not toxic.

The Applicant did not provide a description of the existing environment at the time of the submission of the Application. No preconstruction sound study, no air quality study, no infrasound or low frequency noise studies.

Typically property is the largest asset of any family. Staff Witness Lawrence submitted two properties who reported losses. One in this very project before the project is even permitted or built, and it is a substantial loss.

In my posthearing Brief, Findings and Conclusions, I suggested some conditions if the Commission had found the Applicant's burden had been met.

Staff Witness Hessler during the evidentiary hearing agreed that the Applicant should be able to meet a noise limit on this project for nonparticipants of 40 dBA. A 40 dBA nonparticipant noise limit will reduce annoyance and complaints. I quote, "Sleep deprivation

leads to adverse health effects. No question." That is a quote directly from the Applicant's own witness.

No shadow flicker for nonparticipants. At the very least this Commission should provide the four nonparticipating properties that are going to receive flicker protection by ordering zero flicker for their respective properties. A small amount of turbines moved a few feet or an alternate used would fix the issue for the people who came here for intervention and protection.

Construction noise restriction from 7:00 p.m. to 7:00 a.m. Unreasonable? No. Making the project more palatable to the residents? Yes.

A 1,500-foot setback from any public roadway to protect all travelers. I assume the reason is safety. Commissioner Fiegen addressed the interstate. Our local residents should be afforded the same concern for our state, county, and township roads.

In summary, Commission, Applicants have not simply been unpersuasive. Rather, Applicants have completely failed to meet their burden under state law. Having failed to meet their burden on nearly all, if not all, key areas related to this failed Application, it appears this Commission has no other alternative but in the best interest of South Dakota to deny the Applicant's

deficient Application.

Thank you.

CHAIRMAN HANSON: Thank you very much, Ms. Christenson.

I'll turn to Staff at this time. And we have Darren Kearney, Jon Thurber, Eric Paulson, Kristen Edwards, and Amanda Reiss.

MS. REISS: Thank you. This is Amanda Reiss for Staff.

Staff filed its Brief with the recommendation that Crowned Ridge Wind II has met its burden of proof and that the Commission should grant the permit so long as the certain conditions Staff proposed are attached to the permit. Those conditions include all of the conditions outlined in Staff's Exhibit S7.

We do have two slight changes to that proposal. And these were both mentioned in Staff's Brief, but I would like to highlight them for the Commission today. The first change is that Staff recommends that Condition 29 be revised.

The original proposal would have required two years of postconstruction mortality monitoring. Staff proposes that that be revised to require one year of postconstruction mortality monitoring to assess predictions of wildlife fatality risks at Crowned Ridge

Wind II. This is consistent with the voluntary U.S. Fish & Wildlife Service Land-Based Wind Energy Guidelines.

Xcel Energy has agreed that the funds set aside for the second year of postconstruction mortality monitoring would be reallocated to fund a three-year raptor study at Crowned Ridge Wind I and Crowned Ridge Wind II. Staff came to this revision in the condition based on guidance from South Dakota Game, Fish & Parks, and their further rationale is explained in Staff's Brief as well as the February 27, 2020, letter that's marked as Attachment A.

The second change to Staff Exhibit 7 is mentioned in our Brief as well, and Staff recommends that an additional condition be added -- this condition stems from discussions with Staff witness Morey at the evidentiary hearing regarding whether GF&P had authority to require Crowned Ridge Wind II to access the facility.

Despite the voluntary agreement from the Applicant, it was determined that GF&P does not have the authority to require access. Based on this analysis, Staff proposed and the Applicant agreed to a new condition. That condition is outlined in the Brief, but it essentially says Applicant shall allow Crowned Ridge Wind access to the project area to conduct a pre and postconstruction survey to evaluate the potential effect

on the Crowned Ridge Wind II project on the local prairie grouse population.

I would also mention today that Staff has been in communication with the Applicant regarding concerns due to the proximity of the batch plant to a daycare facility. While the daycare facility did not express concerns to Staff with the batch plant, the Applicant has, nevertheless, agreed to look at other options.

Intervenors Goodwin Group, as they identified themselves in the Brief, argued that granting a permit allowing any amount of noise or shadow flicker to cross onto the property of nonparticipants is interfering with their personal property rights. Staff is unconvinced by this argument.

For clarification, the PUC has limited jurisdiction. The PUC does not grant or alter property rights as they exist before a permit is considered or issued. Instead the PUC reviews Permit Applications to determine whether the Application meets the standard in state law, specifically whether the facility will comply with applicable laws and rules ensuring that the facility will not pose a threat of serious injury to the environment or social or economic condition of the inhabitants, that the facility will not substantially impair the health, safety, or welfare of the inhabitants,

and that the facility will not unduly interfere with the orderly development of the region.

As Goodwin Group mentioned in its Brief, the PUC's role is not to ensure that a project will in no way impact the community, but instead to ensure the project will produce minimal adverse effects. The evidence on the record shows no indication that imposing the noise and shadow flicker limits recommended by Staff would impair the health, safety, or welfare of the inhabitants of the project area, nor would it cause more than minimal effects to the Goodwin Group or other inhabitants of the project area.

The Goodwin Group's argument appears to rest on an idea that any amount of noise or light or blocking of light that crosses property lines should be considered a de facto easement. But this argument fails to provide any real support that a court has ever recognized this concept. Instead, courts have generally recognized that some interference is permissible, such as a road, a railroad, or airport, so long as interference does not render the property completely unusable.

Accepting Goodwin Group's argument would effectively prohibit the permit and construction of any energy project, an unreasonable result.

In the absence of any guidance from the Court

supporting Goodwin Group's argument, granting a permit with the proposed conditions ensures that the project will not pose serious injury to the environment, will not substantially impair the health, safety, or welfare of the inhabitants, and will not unduly interfere with the orderly development of the region.

Staff is available for any questions from the Commission and has nothing further at this time. Thank you.

CHAIRMAN HANSON: Thank you very much, Ms. Reiss. And, Crowned Ridge, you have three minutes for rebuttal.

MR. SCHUMACHER: Thank you, Chairman Hanson. Miles Schumacher. I'll be very brief.

First, we stand by the sound studies that were submitted on the record and believe they demonstrate we have met our burden. With regard to the batch plant (Inaudible) indicated we have agreed with Staff to --

CHAIRMAN HANSON: You cut out at the beginning of that sentence. Try 'er again.

MR. SCHUMACHER: I will. Thank you.

With regard to the batch plant, we have agreed with Staff that we will look at and find an alternative location for that and would confirm that our conversations with the neighboring landowner indicate

they have no objection.

With regard to the roads, we will file a traffic control plan in accordance with the conditions under Condition 8 of the proposed condition. Finally, as indicated in my opening comments, we did file the ADLS application with FAA on March 12, so that has been done. We believe we've met our burden and that it would be appropriate to grant the permit.

Thank you.

CHAIRMAN HANSON: Thank you. And we'll turn to Commissioner questions at this time. I just have one -- well, I have several, but I think those will be fleshed out as we go through the process. I do have one question of Ms. Reiss to start off with, and that is in pertaining to the -- the suggestions for the changes to Staff's Exhibit 7. The second one that you discussed you start out with stating, "The Applicant shall allow," and you state, "Crowned Ridge Wind, LLC access to the project."

I'm curious why that does not read, "Applicant shall allow Game, Fish & Parks access" or as opposed to Crowned Ridge Wind access.

MS. REISS: Sure. Thank you for the question. And I can provide a beginning answer, and, Darren Kearney, if you have more to add, please jump in.

It is my understanding that Crowned Ridge Wind

will be conducting this study, and so the condition is specific to allow them access. I believe Staff would be open to amending that to include Game, Fish & Parks as well as Game, Fish & Parks believes it is necessary.

CHAIRMAN HANSON: Thank you very much. It just seems strange that Crowned Ridge Wind II, which I recognize is a project in -- that they're two different entities, but it's just saying that Crowned Ridge would allow -- I would like to see them required to allow Game, Fish & Parks as well so I'll just throw that out there at this juncture.

Are there other questions by Commissioners?

COMMISSIONER FIEGEN: This is Commissioner Fiegen, and I do have questions, but I don't know if Commissioner Nelson wanted to go first or if I can just ask a couple.

COMMISSIONER NELSON: Well, you can go. The only question I had was for Mr. Swanson, and he's not here. So go ahead.

COMMISSIONER FIEGEN: Thank you, Mr. Chairman and Vice Chairman. There's just a couple of questions, and Staff, first of all, answered my question on Condition 29 so I appreciate that.

Another question I have -- actually this is for Staff and Crowned Ridge II. On Condition 26C, that talks

about the sound study. But, if you remember, in December I added something to the sound study so I want to make sure this is a friendly amendment to the condition, is that the public liaison officer will assist contacting nonparticipating landowners for permission to test noise levels on their properties.

I just wanted to get confirmation that the Staff and Crowned Ridge would be okay with that.

MR. MURPHY: Commissioner Fiegen, this is Brian Murphy for Crowned Ridge. Crowned Ridge is okay with that add to that condition.

COMMISSIONER FIEGEN: Thank you.

MR. MURPHY: And that would be our understanding.

COMMISSIONER FIEGEN: Thank you.

CHAIRMAN HANSON: Commissioner Fiegen.

MS. REISS: This is --

CHAIRMAN HANSON: Excuse me. Go ahead, Ms. Reiss.

MS. REISS: This is Amanda. Did you need further input, Commissioner Fiegen?

COMMISSIONER FIEGEN: Sure. I'm sure the Staff's okay; correct?

MS. REISS: Yes.

COMMISSIONER FIEGEN: Okay. And the other

question I have for Staff is on Condition 34. And I had questions right away and then I think you're clear enough in Condition 34 and that is that the Air Detection Light System is required before starting commercial operation. Is that your understanding? Correct? That they cannot start commercial operation until the detection system has been put on?

MS. REISS: Thank you. This is Amanda Reiss for Staff. And, Mr. Kearney, again, if you have additional thoughts, please jump in. But, yes, that is Staff's intent with this condition.

COMMISSIONER FIEGEN: Okay. Those were my only questions. And I guess I only have one amendment then for the conditions.

Thank you.

CHAIRMAN HANSON: Commissioner Nelson.

COMMISSIONER NELSON: I have no questions, but I do have a motion whenever you're ready.

CHAIRMAN HANSON: I have a question. I believe we have Game, Fish & Parks on the line; is that correct?

MS. MOREY: Yes. This is Hilary Morey with Game, Fish & Parks.

CHAIRMAN HANSON: Hi, Hilary. Excuse me. Ms. Morey.

There's a number of questions pertaining to air

quality, water quality, environmental quality, et cetera. Does the Game, Fish & Parks -- I know you're not DENR. Do you have any concerns over effects on wildlife with this project as it's being proposed?

MS. MOREY: In relation to air quality and water quality?

CHAIRMAN HANSON: In relationship to the effect on animal life from -- obviously, if air quality -- air, water, land is affected in some fashion, it's going to affect wildlife. I'm just wondering if you're concerned about those effects and their not -- well, let me rephrase that.

Are you concerned with the effect of this project and -- that it may adversely affect wildlife because of its effect on air, water, environment in general -- I know you're concerned with it, but is there a change that needs to take place on the S7, the Staff's Exhibit 7?

I know that you've negotiated a variety of things, but I'm wondering whether or not there's anything in addition that you see a need for a change.

MS. MOREY: I guess our -- excuse me. This is Hilary Meyer. Or Hilary Morey of South Dakota Game, Fish & Parks.

Our main concern -- and we've made this clear in

a number of meetings with the Applicant and in previous dockets as well, but our main concern of wind energy projects is impacts to grasslands and fragmentation of grassland landscapes.

Our primary concern there would be grassland nesting birds such as prairie grouse, chestnut-collered longspurs. These species guild, these grassland nesting birds, have been in decline over the last 20 years so those are our main concerns there.

In regards to air quality and water quality, that would be under the realm of South Dakota Department of Environment and Natural Resources so I can't really speak to that. That is not my expertise. But in terms of effects on aquatic organisms, these wind energy projects generally have minimal impacts to aquatic resources, specifically when they site their turbines and access roads outside of waters of the United States.

CHAIRMAN HANSON: Thank you very much, Ms. Morey. Yes. We recognize that the DENR will have the air, water quality, et cetera.

What I was concerned with is -- and you explained it well -- effects on the air and water will, of course, affect wildlife. So I was concerned from that standpoint. But your answer is suffice for that question.

Thank you very much.

I have a motion as well; however, I'll certainly allow Commissioner Nelson to make his motion. And I assume it has to do with Staff's Exhibit 7 and amendments to that.

So Commissioner Nelson.

COMMISSIONER NELSON: Well, Commissioner Hanson, I think we've done this often enough that you are exactly right.

I will move in EL19-027 that the Commission grant the permit for construction of a wind energy facility to Crowned Ridge Wind II, LLC pursuant to SDCL 49-41B-25 and attach the conditions as found in Staff Exhibit S7.

If I might continue, I would move to amend my motion with a series of what I am going to call Nelson proposed amendments. These are in written form, and at this point we're going to have to take just a little bit of a pause for Joy Lashley to e-mail that out to everybody involved here, put it on the website.

Commissioners, I am going to send it to you as we speak, and I think we just need to be at ease until everybody gets that before I proceed with describing what's in those amendments.

Commissioner Hanson, are you still there?

CHAIRMAN HANSON: I am. And I'm assuming these are, for the most part, the amendments that Karen sent out as no doubt to each one of us -- we assume so -- as suggestions of -- I don't see all of them that she mentioned.

COMMISSIONER NELSON: Yeah. And as soon as everybody's got it, I'll go through them one at a time and kind of explain the origin of each one.

CHAIRMAN HANSON: Mr. Schumacher. Excuse me. Well, let's see how many -- we have 22 persons on the phone right now for this docket.

Is there anyone who has not received this information?

MR. SCHUMACHER: Thank you, Chairman Hanson. Miles Schumacher.

I have not received it. I have the docket up, and I don't see it posted there yet. I can't speak for Mr. Murphy as to whether or not he and the remaining Crowned Ridge representatives have it yet.

CHAIRMAN HANSON: All right. Well, we'll give it a few more minutes, and then we will start to go through it. It's a number of --

COMMISSIONER NELSON: Yeah. I think it's probably self-explanatory enough that I can do it -- and just for the public's benefit, I e-mailed the document

just now to my two fellow Commissioners so they've got it. Our Staff is in the process of e-mailing it to the docket list and posting it on our website, but because we're working remotely, that may not be happening as smoothly as we hoped.

CHAIRMAN HANSON: We'll give it a few more minutes here, and then we will start with it. I don't think it's going to be difficult by any means to understand. I think we've discussed a number of these items at this juncture so we'll start here in just a couple of minutes.

MR. SCHUMACHER: Thank you, Chairman, Miles Schumacher. I will verify (Inaudible).

CHAIRMAN HANSON: Okay. You cut out right after the word "verify."

MR. SCHUMACHER: I have received it. Thank you.

CHAIRMAN HANSON: Thank you.

Have the other parties -- I assume Staff has received it. Ms. Christenson, have you received it?

MS. CHRISTENSON: Yes. Thank you.

CHAIRMAN HANSON: Thank you.

Staff?

MS. REISS: Staff has received it.

CHAIRMAN HANSON: Thank you.

Commissioner Nelson, would you proceed then?

COMMISSIONER NELSON: Certainly. And I've just been advised by Staff that it has been posted to the website, but our website has to go through a replication process before it actually appears out there. And now I'm being told that it's there. So I think we're good to go.

CHAIRMAN HANSON: Let's call the amendments to Staff Exhibit S7 -- you may come up with another amendment as we go through this process. Please proceed.

COMMISSIONER NELSON: Thank you.

So, to begin with, I believe that the Applicant has met their burden under state law and are, therefore, entitled to receive a permit, hence the motion. Staff did a great job of putting together their Exhibit S7 as a foundation for the conditions that need to be attached.

However, through discussions at the hearing and since the hearing, there are several items that have bubbled up that I think demand that S7 be amended and, hence, my proposal.

And I'll just go through this, and if people have questions, I'm certainly happy to answer that.

No. 1, inserting the word "itemized." That's something we talked about during the hearing.

No. 2, providing just a little bit of additional information that the landowners -- that they be given the

Order in addition to the Permit. I think that additional information is good.

No. 3 is the change to paragraph 29 that Staff has already talked about. I think I've taken that language verbatim from what Staff presented. And, Ms. Reiss, if I haven't, please let me know.

No. 4 deals with paragraph 34. And this is a complete replacement for paragraph 34. But I think it gets at the question that Commissioner Fiegen asked just a little bit earlier in that I want to be very clear that we are requiring the Applicant, first of all, to utilize an ADLS. Secondly, that they be required to apply for their permit from the FAA in enough time to receive that permission by the commercial operation date, and then that it, in fact, be operational by the commercial operation date.

And so I've just expanded upon that requirement, making sure that we all understand that we intend it to be there by commercial operation date.

No. 5, I'm proposing to delete paragraph 40. As we've looked at that paragraph, we think we already have the authority to do what's outlined there, and there's not any reason to spell that out a second time.

No. 6 is the whooping crane amendment language that was talked about during the hearing and was agreed

to by Staff and by the Applicant. So I've included that.

Commissioner Hanson, you can give me a point for actually including a whooping crane amendment maybe for the first time?

No. 7, in looking through S7 I think there's some grammatical things that maybe before the final order is written can be cleaned up just a little bit. Nothing subjective, but just some grammatical changes.

No. 8, the Intervenors, and I don't recall which Intervenor, suggested that we require that the completion of the LNTE blade attachments on Crowned Ridge Wind I turbines be completed before commercial operation of Crowned Ridge Wind II. I think that's a reasonable requirement. In order for the sound modeling to be accurate, that does need to happen. And so I've included that as a requirement.

Now I'll say from a practical perspective, I think it's a moot issue. I am very confident that the LNTE blade attachments will be in place much prior to Crowned Ridge Wind II being ready to go commercial, but let's just put it in there and spell it out.

No. 9, this comes from Applicant witness MaRous who indicated that the project owner would be willing to cooperate with ag spray applicators to shut down turbines as needed for effective and safe spray

application and operation. So we've just included that in the conditions.

No. 10, and this is something -- a provision that Staff spoke to already today. Again, Ms. Reiss, I think I've got the language right here, but if it needs to be changed in any way, you can let us know.

And then I'm going to add a No. 11 on here just to keep this easy. Let's include Commissioner Fiegen's paragraph 26C, a public liaison suggestion. Let's just include it in here so we can look at all of this at the same time.

With that, I'd be happy to answer any questions about any of these individuals. And if any of my fellow Commissioners want to pull any of these out and deal with them separately as opposed to an omnibus group, I'm fine with that too.

CHAIRMAN HANSON: Thank you. And I would like to have Commissioner Fiegen's -- on its own, let her make that motion and explain it.

There are a number of areas that I have concerns with. And I will give you a point for adding the whooping crane at the end. Obviously, I was going to if you had not, but I appreciate your coming around to my side of the world on supporting the birds.

Commissioner Fiegen, do you have -- I have some

comments on the motion, but I'm going to hand over the mic. to you.

You have the floor, Commissioner Fiegen.

COMMISSIONER NELSON: And, Chairman Hanson, if I could, I will just voluntarily pull back that 26C portion of that and let Commissioner Fiegen handle that. Not a problem.

CHAIRMAN HANSON: All right. Commissioner Fiegen.

COMMISSIONER FIEGEN: I am still reviewing the amendments so I will have comments in a little bit. And it doesn't matter if my amendment's on there or not. I'm okay either way.

CHAIRMAN HANSON: Yeah. I'd like to print a paper copy of this so that I can -- so that I can work on it. I'm going to -- I have to send this over to a different computer, turn that computer on and then send it to a -- my printer here. Three computers on my work area and two iPads and two phones gets a little bit challenging at a time like this.

So if we could take just maybe 10 minutes here so that I can make a copy and anybody else who's in that position can look this over. Thank you. I'm going to go on mute here and take care of that.

(A short recess is taken.)

CHAIRMAN HANSON: Okay. As we discuss it -- I know I said 10 minutes, but as we discuss it I think people will be able to follow along.

Commissioner Fiegen, do you have any questions or discussion on the motion?

COMMISSIONER FIEGEN: If my amendment wasn't put on and Commissioner Nelson took it off, I do move to amend the section of -- oh, all the sudden I can't find it. The section on the public liaison officer, 26C, by adding, "The public liaison officer will assist in contacting nonparticipating landowners for permission to test noise levels on their properties."

CHAIRMAN HANSON: Great. Okay. And I'm going to accept that as a motion to amend.

And we've discussed it. But is there any discussion on the motion?

COMMISSIONER FIEGEN: No. I think all of us probably agree with that and the two parties -- or the three parties I'm assuming all agree also.

And for the other conditions, while I looked through all of them, I guess I -- actually there are -- I think the -- 34 is probably written a little bit more clearly. And I want to make sure that was the case so I reread that. I wanted to make sure 40 could be deleted, and I do believe Commissioner Nelson is proper on that.

And then I certainly appreciate the amendment on the sprayers, the aircraft sprayers that spray for our agricultural people, and I appreciate that amendment. So thank you.

CHAIRMAN HANSON: Thank you. Any further discussion on the motion? Looks like a friendly motion.

Hearing no further discussion on the motion to amend, Commissioner Nelson.

COMMISSIONER NELSON: Aye.

CHAIRMAN HANSON: Commissioner Fiegen.

COMMISSIONER FIEGEN: Fiegen votes aye.

CHAIRMAN HANSON: Hanson votes aye. The motion carries.

That brings us to further discussion, motions to amend. I'm going to ask that on No. 10 of the list of amendments that after the word on the first line, "Applicants shall allow Game, Fish & Parks and Crowned Ridge Wind," I'd like to see it very plain that GF&P has access to the project area. That's all the discussion I have on that.

Any further discussion on that motion to amend?

Hearing none on the motion to amend, Commissioner Nelson.

COMMISSIONER NELSON: Aye.

CHAIRMAN HANSON: Commissioner Fiegen.

COMMISSIONER FIEGEN: Fiegen votes aye.

CHAIRMAN HANSON: Motion carries.

Brings us back to further discussion on the main motion. Commissioner Fiegen, Commissioner Nelson -- Commissioner Nelson, do you wish to amend your own motion here or --

COMMISSIONER NELSON: Well, no, I don't, but I think we're back to -- I don't think we're back to the main motion because I don't think we voted on these 10 items yet. So I think we're on my motion to amend.

CHAIRMAN HANSON: Correct. You're correct. We're back on the amended motion to amend.

Anything further, Commissioner Fiegen? I have a few items if you --

COMMISSIONER FIEGEN: You know, I have went through them, and this is Commissioner Fiegen again, and I believe these are correct. Thank you.

And I also appreciate the new paragraph on the LNTE blades. So I appreciate that too. Thank you.

CHAIRMAN HANSON: Yes. Absolutely.

I'm a little concerned with item No. 7. It says minor grammatical changes. I'd like to phrase that a little bit differently, but I don't want -- some of the areas where I see that we need some changes -- you know, I think once we get back to the main motion I'll have

some motions at that point so I won't -- I guess I won't worry about that at this juncture.

I'm going to look at -- there were a couple of things that I have concerns with. And, no, I do not have concerns with the whooping crane.

COMMISSIONER FIEGEN: Mr. Chairman, I do have a question for Commissioner Nelson on the paragraph 34.

CHAIRMAN HANSON: Please proceed.

COMMISSIONER FIEGEN: I see FSA in there. Is that correct, or is that a state officer thinking about FFA?

COMMISSIONER NELSON: Yeah. That's me thinking about FFA, and that does need to be FAA. And let's just consider that a friendly amendment. Thank you.

COMMISSIONER FIEGEN: Okay. Thank you.

CHAIRMAN HANSON: Would you point that out. I was looking at -- oh, I see it. Twice it says FFA. I assume that's under minor grammatical changes. Oh, it's on there just once. Okay.

Too many papers to deal with.

Item 29, did you make a motion on -- there it is. Replace paragraph 29.

I agree with that in its entirety, and I understand that -- with one exception. And I understand the negotiation that took place with -- between Staff,

GF&P, and the Applicant. I just have never been comfortable with a one-year postconstruction -- one year gives us such a short moment in time and the effects.

And so I would like to leave that as a two-year and just leave everything else the same as it's presented there. I think you did a real good job of putting that together, and certainly Karen appreciates your work on this.

Commissioner Nelson, I hope you don't have any heartburn with that, but I will move that -- I move that in paragraph 29 to supplant the word "one" in the first line with the word "two" so that it reads, "Applicant agrees to undertake a two-year independently conducted postconstruction."

Discussion on that motion. I guess I've already discussed it. I just feel it's too short of a window in time to have a real decent study of any sort. I'd like to see three to four years. But a one-year just causes me real concern.

Any further discussion on that motion?

COMMISSIONER NELSON: Well, yeah. No hard feelings, but I'm probably going to oppose it. You know, and Staff and Game, Fish & Parks, you know, looked at what they thought was needed. You know, one year is what they came up with so I'm going to stick with that for

now.

CHAIRMAN HANSON: Yeah. I agree. I understand that they went through that process. I think it was the type of a deal where they felt they could -- well, they definitely did through their discussion, that they traded the two year to a one year in order to get the Applicant also agrees to fund a federal grant match. And I think we're in a position where we're able to accomplish both. So that's why I went with that.

Thank you, though, for the comment.

Any further discussion on the motion to amend the -- go ahead.

COMMISSIONER FIEGEN: Thank you, Mr. Chairman. Commissioner Fiegen here.

It makes me a -- I appreciate what you're doing, but I would like to ask Crowned Ridge because I know there's negotiations and give and take on settlement. And I appreciate that they were willing to do the additional LEC study.

So I just want to talk to Crowned Ridge if they'd be willing to do that. Because I know during settlement discussions there's give and take. So if I could ask the question to Crowned Ridge.

MR. MURPHY: Thank you, Chairman Hanson, Commissioner Fiegen. I would like Kim Wells to provide

you some context and background of the discussions. And I think that will help.

So, Kim, can you -- are you still on?

MS. WELLS: I am. Thank you for the opportunity. I would just like to highlight that the rationale for proposing the amendment to Condition 29 was because Crowned Ridge, Xcel, and GF&P all agreed that there was existing data in the scientific literature to look at the effects of wind on bird and bat mortality. So there is data to draw on.

We also agreed that there's a lot of South Dakota data. We agreed that because there's already two years being completed at Crowned Ridge I, we didn't think that a second year at Crowned Ridge II offered compellingly new or different information. And, third, we in conjunction with Xcel and GF&P thought this was a more useful study for the funds to meet a need that GF&P articulated.

I'm sure Hilary would be able to articulate more of how that fits into the State Wildlife Action Plan, but in short those are the three reasons why we came to this amendment to Condition 29.

Thank you.

CHAIRMAN HANSON: Commissioner Fiegen.

COMMISSIONER FIEGEN: Thank you, Mr. Chairman.

Commissioner Fiegen here. I'm going to actually -- although I agree a lot of times with Commissioner Hanson, I'm going to oppose his amendment today because I believe the settlement discussion, and we got to hear part of it just now, relieves me of that concern.

So when I read this I also became very concerned with the one year. And so I kept on going back to the filing, and I became more comfortable after I read more of the filing. So I'm going to oppose it but certainly appreciate the amendment.

CHAIRMAN HANSON: Thank you.

Ms. Morey, just a short question. We don't need to have other people testify for you, but I know that there was a significant negotiation that took place, and I know the position that you finally promised on.

However, you did originally ask for a two-year. Do you feel there was good reason to ask for a two-year?

MS. MOREY: This is Hilary Morey with South Dakota Game, Fish & Parks. So when I originally prepared my testimony for this docket we asked for the two years of postconstruction mortality monitoring. As you mentioned, that two years gives you a little bit more of a spacial time frame to look at the effects of wind energy impacts because these projects do last for 20 to 30 years.

However, once we started working with Crowned Ridge I on the grouse study, we started to come up with some additional objectives that were of interest to us as Game, Fish & Parks to look at specific species interactions with wind energy projects.

So we felt that this was a good compromise because we would still get one year of that postconstruction monitoring and, as Ms. Wells mentioned, we'll have the two years of postconstruction monitoring of the adjoining Crowned Ridge I wind facility. So we're really excited about this opportunity to conduct this raptor study at both Crowned Ridge I and Crowned Ridge II footprints.

This is some research that was done about 20 years ago in southeastern South Dakota so we would essentially be able to repeat this research in a new location and 20 years later to look at the impacts of these facilities on our raptor populations in the state.

CHAIRMAN HANSON: Well, that's great news. And that was a good compromise that you made from that standpoint.

Would a two-year independently conducted postconstruction avian, et cetera, et cetera -- would a two-year give you a much better idea of -- would it give you a better study?

MS. MOREY: This is Hilary Morey for Game, Fish & Parks. The two studies are pretty different, I guess. So the postconstruction mortality monitoring would only monitor animals, bats and birds, that are killed by operating turbines. Whereas this raptor project would actually look for raptor use within the project area.

So I don't think that we can use the postconstruction mortality monitoring necessarily to add to the study. I'm not 100 percent sure. I would have to speak with our project collaborators. But they're two -- excuse me.

CHAIRMAN HANSON: I think you're misinterpreting my question. I'm not asking you to give up anything. I'm asking simply if you -- if you got your cake and got to eat it too, in other words, you were able to keep the raptor study and everything that's been agreed to up to this point, you simply would have two years instead of one year, would that be of significant benefit?

MS. MOREY: This is Hilary Morey with South Dakota Game, Fish & Parks.

Yes. I understand your question now. And we would -- we would like to fund this avian predator study. That's our number one priority. And I guess it's up to the Applicant if they can fund both the study and a second year of postconstruction mortality monitoring for

the project. But there would be utility in both of those.

CHAIRMAN HANSON: Thank you. Appreciate your answer.

It hurt a little bit when you said something about avian mortality wasn't significant or something of that nature. I forget what it was.

All right. Well, thank you for that. Appreciate it.

We're back to the motion to amend. And I've heard my colleagues and, nevertheless, I hope that you both understand that the Applicant does have enough dollars in their pocket to handle one more year of this and it would be a much better study and hope that you'll have seen the light.

So, on that, is there any further discussion?

If not, on the motion to amend, going from one year to two year, Commissioner Nelson.

COMMISSIONER NELSON: With my sunglasses on, I'm going to have to vote no.

CHAIRMAN HANSON: Commissioner Fiegen, did you take your glasses off?

COMMISSIONER FIEGEN: Fiegen votes no.

CHAIRMAN HANSON: Well, Commissioner Hanson votes aye. And the motion fails. Ouch.

Okay. Back to the discussion on has anyone -- I still have one motion to amend, but I'd like to know if anybody else has anything first. If not, I have a question first, and then perhaps the motion.

On the main motion it shows No. 5, delete paragraph 40. And I was in love with that paragraph because I felt that it provides a hammer that the permit is conditioned on the Applicant and any future owner, that the permit can be revoked by the PUC. It makes it very, very plain. And I want it very plain that the project can be revoked by the PUC if conditions are not met.

It seems like we have had some -- well, I know we have had some discussions and concerns about semantics and whether or not the PUC can revoke permits so I'll ask the attorneys, is it very clear within this document -- if we do not have paragraph 40, is it very clear, and where is it very clear, that the PUC can revoke the permit if a condition is not met? So whomever -- whichever attorney can answer that question, I appreciate it.

MS. CREMER: This is Karen Cremer. Are you looking to Staff and Crowned Ridge, or are you looking to Adam and I?

CHAIRMAN HANSON: Well, I'm looking to you and

Adam. Certainly you're the ones who will be making the decision. But if Crowned Ridge were to attest to the fact that, yes, here's another paragraph that absolutely makes it conclusive that you can remove the permit, then, of course, that would be on record and that would be ironclad.

However, in the absence of that, yes, Ms. Cremer, I'd love to hear from one of you on this.

MS. CREMER: Well, with that then, I'll let Crowned Ridge go.

CHAIRMAN HANSON: Okay. Mr. Schumacher, is there somewhere within this document that it is absolutely clear that the permit can be revoked by the PUC if a condition is not met by the Applicant or an owner?

MR. SCHUMACHER: Yes. This is Miles Schumacher. I don't see the specific language, unless it's read in conjunction with the statute that was referenced in one of our earlier dockets today.

MS. CREMER: And this is Karen Cremer.

CHAIRMAN HANSON: Thank you.

MS. CREMER: And, with that, I would say I would agree with Miles. To me, the first two sentences are already covered by statute. It even references the statute. So that seems unnecessary to me to have those

first two sentences.

As to the last sentence, to me that's covered in 41.

I think where we're running into problems in prior dockets, you know, that we heard earlier today is it has to do with jurisdiction and who has jurisdiction and not the fact that we can't revoke. Clearly we can. It becomes a matter of when we could do that. And so that would be my take on paragraph 40.

CHAIRMAN HANSON: Thank you.

With great trepidation, I will not make a motion then to exclude that. I keep wrestling with it even after I say that because I don't want to build things for the present people that are involved. I don't want to build things for other areas that may be changed somewhere.

You know, if we don't specify it here and something changes elsewhere, then we lose that opportunity to make it very clear. And I don't like to build things from the standpoint of the three Commissioners who are here now because there will be three different Commissioners many years from now. And so I really, really struggle with deleting paragraph 40.

I'm going to ask my fellow Commissioners. It may be redundant at this juncture, but I'm wrestling with

it so much that I'm going to ask you to support it in deleting that portion in No. 5 where it states to delete paragraph 40. I'd like to leave paragraph 40 in the document.

And you can tell I'm not vacillating a lot, but I'm falling back and forth on this. I just am too uncomfortable with deleting it. So that's my motion.

Any discussion from my fellow Commissioners?

COMMISSIONER NELSON: Yeah. This is Commissioner Nelson. I hear where you're coming from but, you know, I've got my statute book open to 49-41B-33, and it's crystal clear to me that we have that authority by statute. I don't think we gain anything by putting it in the conditions. So I'm okay with it as it is, taking that paragraph out.

CHAIRMAN HANSON: Thank you.

COMMISSIONER FIEGEN: Mr. Chairman.

CHAIRMAN HANSON: Commissioner Fiegen.

COMMISSIONER FIEGEN: Thank you.

I would like to ask Staff for their legal opinion. Because I believe, like Commissioner Nelson, we're okay. But are they concerned if that statute would be deleted by the state legislature in upcoming years and that's why we should have this? Because, otherwise, I fall in line with Commissioner Nelson.

MS. REISS: Thank you. This is Amanda Reiss for Staff. And I don't think that Staff has that concern when we included that condition in our proposal. I believe if I remember correctly, this condition stemmed from some discussions with Intervenors, and Staff attempted to craft a condition that would address some of their potential concerns.

I think Staff agrees that the statute identified does give the PUC authority to revoke a statute if required. The one thing that this condition does address that the statute does not is in regard to the individual turbines. But if the Commission would like to remove this condition, I believe we could potentially address individual turbine concerns in a different manner, if necessary.

COMMISSIONER FIEGEN: So, Commissioner Hanson, if I could just have a couple minutes to look at everything one more time, I'd appreciate that.

CHAIRMAN HANSON: Please go ahead.

COMMISSIONER FIEGEN: So other people can talk if they want to. I just want a couple of minutes.

CHAIRMAN HANSON: Okay.

(Pause.)

COMMISSIONER FIEGEN: Mr. Chairman.

CHAIRMAN HANSON: Yes.

COMMISSIONER FIEGEN: This is a hard one because I certainly appreciate how Staff talked about trying to work with Intervenors. And that softens my heart, but I still don't think we need this. But I appreciate Staff's effort and Crowned Ridge for agreeing.

But my goal is to make this as clean as possible, and I don't think 40 is needed. I've tried to look at that in the last hour a couple times and I believe it's unnecessary but I certainly appreciate the effort of working with the Intervenors.

CHAIRMAN HANSON: Thank you. I will look for any further discussion on the motion to amend by deleting the deletion of paragraph 40.

Any further discussion on the motion to amend the amendment -- proposed amendment?

Hearing none, all those in favor will -- well, Commissioner Nelson.

COMMISSIONER NELSON: No.

CHAIRMAN HANSON: Commissioner Fiegen.

COMMISSIONER FIEGEN: Commissioner Fiegen votes a very soft no.

CHAIRMAN HANSON: Commissioner Hanson votes a very hard aye.

Motion fails. I hope that doesn't bite us in the future.

We are back to the amended motion to amend. Any further discussion on the amended motion to amend?

Hearing none --

COMMISSIONER FIEGEN: So I just have a question. Are we to the main motion now?

CHAIRMAN HANSON: No. We are on the motion --

COMMISSIONER FIEGEN: Okay.

CHAIRMAN HANSON: -- of the S7 exhibit.

COMMISSIONER FIEGEN: Thank you.

CHAIRMAN HANSON: That has been amended.

COMMISSIONER FIEGEN: Thank you.

CHAIRMAN HANSON: Editorial comment. It hasn't been amended enough, but it's been amended. We're back to the motion to amend as amended. Any further discussion?

Hearing none, Commissioner Nelson.

COMMISSIONER NELSON: Aye.

CHAIRMAN HANSON: Commissioner Fiegen.

COMMISSIONER FIEGEN: Fiegen votes aye.

CHAIRMAN HANSON: Hanson votes aye. Motion carries.

We're now back to the main motion as amended. Further discussion on that. Well, I'd turn to Commissioner Fiegen. Do you have any motion --

COMMISSIONER FIEGEN: Thank you. Thank you,

Chairman Hanson. I do have discussion on the main motion when you're ready.

CHAIRMAN HANSON: Okay. Do you have any motions to amend at this point?

COMMISSIONER FIEGEN: No. No.

CHAIRMAN HANSON: Okay. I have one motion to amend. I probably have more than one, but just to make some verbiage clear -- but I have a subjective motion.

Throughout the document of S7 we refer to Applicant shall, Applicant will, Applicant agrees, et cetera, et cetera throughout the -- and I'm not about to change all of those Applicants to Applicant or future owner. However, I would like to add -- so that it applies prospectively to all future owners, whomever they may be, I'd like to add an additional paragraph that states these permit conditions shall apply to any future owner who takes possession pursuant to 49-41B-29.

And this is something as I was rereading this last night in preparation for today's meeting rather than e-mailing Adam or Karen at 2 o'clock in the morning I decided I'd just write down something. I called Karen this morning early and said that was my concern. What do you think?

I had a different paragraph written up. She suggested that this would -- and certainly as an attorney

she writes law much better than I. So this -- the purpose of this is to make certain that any -- all future owners are very clear, again -- I've been in contract businesses for a very, very long time. I just like things -- as you can tell from my other amendments, motions to amend and concerns, that it would make it very clear that this obligations of these conditions are on the shoulders for all future owners of the property.

So the paragraphs states that, "These permit conditions apply to any future owner who takes possession pursuant to 49-41B-29." That's all the discussion I have on that. I make it as a motion and the main motion as amended.

Discussions, questions?

COMMISSIONER NELSON: Commissioner Nelson -- go ahead, Commissioner Fiegen.

COMMISSIONER FIEGEN: No. I'm just -- all I wanted to say is thank you, Commissioner Hanson, for bringing that to our attention. I totally agree with you on it, and I assumed it was already done so I appreciate you bringing that to our attention.

Thank you.

COMMISSIONER NELSON: Yeah. So here's my question. Yeah. I certainly agree it, but it looks to me like 49-41B-29 states that we, the PUC, can't transfer

a permit to anyone unless they agree to abide by all of the conditions. So how does this motion to amend add anything beyond what the statute requires?

CHAIRMAN HANSON: I'll ask Ms. Cremer on that. I did not have my Title 49 out right now so I can't check that very easily.

I don't know that I needed to say pursuant to that. I just look at it from the standpoint that the conditions of the permit apply to all future owners. So perhaps Karen has a better way to phrase it or an answer to your question.

Ms. Cremer.

MS. CREMER: Thank you. This is Karen Cremer. And, again, you know, we had a very quick discussion this morning. And, again, I would just state that it is in statute clearly, just kind of like the prior discussion we had but you had asked for some language and so I provided that to you.

Does that answer it?

CHAIRMAN HANSON: Commissioner Nelson, does that answer your question?

COMMISSIONER NELSON: Well, yes. What I heard is that this is no different than the discussion we just had, that it's already covered in statute. So I absolutely don't disagree with the intention. I just

don't think it's needed because it's already covered.

CHAIRMAN HANSON: And I don't know that it is covered by the way that you explained or read that statute. So it is something that I'm -- that I believe needs to be a part of it if that cite needs to be removed from it and just simply state these permit conditions shall apply to any future -- or excuse me. These permit conditions apply to any future owner who takes possession --

Yeah. I think the cite is still appropriate because it states if they take possession pursuant to that, where we give them permission.

COMMISSIONER NELSON: Yeah. And I'm not arguing that point. Let me just read the statute. It's short. And then I'll shut up.

49-41B-29, "A permit may be transferred subject to the approval of the Public Utilities Commission to a person who agrees to comply with the terms, conditions, and modifications contained therein. The Commission shall adopt rules pursuant to the authority granted under this chapter."

CHAIRMAN HANSON: Okay. Thank you for reading that. It does appear that -- excuse me, Commissioner Fiegen.

COMMISSIONER FIEGEN: No. Go ahead.

CHAIRMAN HANSON: I was just going to say that it does sound that it's covered under present statute. Thank you.

Commissioner Fiegen, did you have anything?

COMMISSIONER FIEGEN: No. Just for Staff of the Public Utilities Commission, they have worked, of course, with transfers and, you know, we get to see it at a hearing but we don't always get to see the behind-the-scenes issue.

Have the Staff ever had issues with a transfer where the new owners objected to the permit conditions and they thought our laws weren't stringent enough?

MS. REISS: Thank you. This is Amanda Reiss for Staff. And I don't believe we've had any concerns or come across any issues with that statute. Or with transferring the conditions to a new owner.

COMMISSIONER FIEGEN: Okay. Thank you. I appreciate the discussion we've had. And I know that if a transfer comes up to us in a docket, we can make sure that that happens.

Thank you.

CHAIRMAN HANSON: Yes. Thank you for that. Appreciate the discussion and work from everyone, especially when we're in compressed time frames as we are.

I'm going to withdraw that Motion because it -- if we do our due diligence when someone transfers, then it's taken care of.

Are there any further motions to amend the main Motion that's amended?

I have a question of Staff on 8C on page 2. The second line there refers to active construction period. Again, I'm a stickler on semantics and contracts, and it says, "Repaired through the active construction." Shouldn't we state through -- any time that they're doing construction on it, that they will do this?

I'm thinking of striking the word "active" and through --

MS. REISS: Thank you.

CHAIRMAN HANSON: Excuse me. Go ahead. Sorry.

MS. REISS: Oh. Thank you. And I think, you know, when Staff put together this condition I think we tried to look to the future and what construction we were looking to to protect the roads. And I think the additive "active" really protects that time when there's large machinery traveling across roads on a regular basis multiple times a day.

I think if you -- if you do remove it, there may be a question as to whether general maintenance is included as construction. And then I think there's

concern as to whether those maintenance trucks have caused a problem or whether it's just general wear and tear.

I do think there are road use agreements with local entities that can address that as well, but that's just a little bit of a rationale and explanation, but clearly this Commission is free to alter this condition as you see fit.

CHAIRMAN HANSON: Okay. I appreciate that.

Perhaps you can help me with No. 15C. And for those people who are wondering why the heck didn't I talk to you prior to this, for those folks who aren't aware, we're not allowed to chat, except in an open meeting like this in regards to this.

So in 15C there's a suggestion that the word "insure" at the beginning of the sentence -- so that it would read "Insure all access soils generated." That might seem a small change, but I'm concerned whether the Motion on minor grammatical changes that we passed includes that.

Would the -- well, would the fellow Commissioners assume with me that that is -- should be included, we don't need a Motion to amend, et cetera, just that -- well, maybe we do.

COMMISSIONER NELSON: Chairman Hanson, this is

Commissioner Nelson. That was exactly the types of things that I intended to cover with my phrase minor grammatical changes.

CHAIRMAN HANSON: Right. And when I looked at that certainly in item 2 when it states, "Applicants shall construct" instead of "Applicant shall, one," you know, that sort of thing, yes. I don't know if this falls under -- far enough down the list to be minor. So that's why I asked whether we needed (Inaudible) included.

COMMISSIONER FIEGEN: Chairman Hanson, if I could just interject, this is Karen Cremer. If you go back up to 15 where it says, "Applicant shall."

CHAIRMAN HANSON: Right.

MS. CREMER: The two words right before. So it's "Applicant shall strip the topsoil. Applicant shall store the topsoil. Applicant shall...all excess soils." It doesn't say what they (Inaudible). And so I just put a verb in there.

CHAIRMAN HANSON: Okay.

MS. CREMER: Yeah.

CHAIRMAN HANSON: Right. Yeah. I understood that. It makes grammatical sense to do that. Your adjective may be different from the next person's, but I assume that you'll make sure that's changed and that

there won't be an argument from the Applicant.

We'll turn to page 5 then and look at 22 -- well, it's -- it's the third indentation with the dot. It states, "Once received, Staff shall have 10 calendar days."

Calendar days are a lot different than business days. And if the request is made on a Friday and there's a Monday holiday -- or for any other reason, that could knock -- with two weekends in there, that would knock that down to four working days with Staff. And with the compressed times that we always have, that just did not seem like a very long -- 10 days --

Even 10 business days don't seem like a long enough time for me. So I'd like to change that to business days instead of calendar days. So I make that as a Motion to amend at this time.

And I've spoken to it, which I guess I shouldn't do prior to making a Motion, but it seems to facilitate the work we do a little bit easier if we do that.

So I have a motion to strike "calendar" and supplant the word "business" with "calendar." And I've spoken to it.

Any discussion on that Motion?

COMMISSIONER NELSON: This is Commissioner Nelson. I don't have a problem with it. But if I could

just ask Staff if there was any reason for this being a more accelerated time frame than 10 business days?

MS. REISS: Thank you, Commissioner Nelson. This is Amanda Reiss for Staff. I think, if I remember correctly, there was discussion in previous dockets about needing to move forward expeditiously. So I believe we included calendar days as opposed to business days.

Staff has no concern changing that at this point. We have not, though, conferred with Crowned Ridge Wind II regarding such a change at this point.

COMMISSIONER NELSON: Thank you.

CHAIRMAN HANSON: Further discussion on the Motion?

Obviously, if it's business days and it's a pressing deal, Staff has never been known to be dilatory in any fashion so I don't believe that's going to hurt the Applicant in any way if we make certain that future Staff has an opportunity.

Further discussion on the Motion?

Hearing none, Commissioner Nelson.

COMMISSIONER NELSON: Aye.

CHAIRMAN HANSON: Commissioner Fiegen.

COMMISSIONER FIEGEN: Fiegen votes aye.

CHAIRMAN HANSON: Hanson votes aye. The Motion carries.

Item No. 7 on the Motion to Amend -- the Amended Motion to Amend stated the grammatical changes. And just for the record, I'm going to point out what I consider some of those. And I know that the Commission -- my fellow Commissioners are thinking similarly.

On 26B, which is on page 6, about one, two, three, four -- about six lines from the bottom the word "wind" needs to be added before "turbines," and the word "Commission" removed before the word "Staff."

And there's 15 times when the word "wind" should be added on page 6 and 7 in front of the word "turbine." And in some cases the word "Commission" should be removed. So I would -- whomever is working through that process make certain that the word "wind" is placed in front of "turbine" so it says "wind turbine."

And then on page 8 I'm wondering whether some of these are significant enough to change. And some instances, like on page 8, it would be 33, the second paragraph of 33, which is on -- at the top of the page. It has the word "Applicant."

And, again, in 33A, the first line, it says, "Applicant." And again it says, "Applicant" in B. And the second line from the top of B it says, "turbine." It should probably say, "project owner."

In every place where it says "Applicant" it

should probably say "project owner" instead of "Applicant." I would consider those to be items that would fall undermine or grammatical changes, but it's really not a minor grammatical change. But unless my fellow Commissioners disagree and think that we need to have a Motion on those or they disagree with me.

In 33E, however, I think that it is material where it states escrow -- "the escrow account obligations," and it should state the "decommissioned funding account." And it's not the escrow account at this point. It's a decommissioning funding. I think we know that, but just so there's no misunderstanding. That needs to be done in E and F and H. And when it states "agreement" it should state escrow agreement."

And in H(ii) and iii and item 4, Roman numeral II, III, and IV, it should say "decommission funding account" instead of "escrow" and "escrow account." And the same in I and J where it refers to the account and at the beginning of the sentence says, "account funds," it should say "decommissioning."

And I know you're all excited with me going through this like this, but there's a sentence at the end of 35 that I have a question on. "If no waiver is obtained, Applicant shall file a mitigation plan with the Commission prior to construction and obtain Commission

approval of the mitigation plan."

Is that a part of S7?

Can someone from Staff -- I'm having trouble getting through all of the different items I have on my computer here to check that. That would be item 35.

I believe that -- I'm going to answer my own question. I believe that it is the same grammatical situation with item 37 needs to be changed on the word "wind and "project owner," et cetera, and "wind turbine."

And in 41 -- I believe whoever is redoing it will notice 41 where there's a number of changes that need to take place, but I'll bring that to their attention at this time. And then -- and that is all that I have on it, much to the relief of my fellow Commissioners.

Are there any other motions to be made at this time?

Hearing none, we have a main motion as amended. Hearing no further discussion on the main motion as amended -- excuse me. Go ahead.

COMMISSIONER FIEGEN: So sometime I'd like to make a statement on the main motion.

CHAIRMAN HANSON: Why don't we do that now. I was thinking we'd do it afterwards but, yes, it makes all the sense to do it now.

COMMISSIONER FIEGEN: So are you -- did you just state that you were amending those -- the statements that you just made, is that an amendment?

CHAIRMAN HANSON: No. That is to bring attention to whomever is doing the grammatical changes, that those are items to consider when they do their -- because it really needs to have clarification.

COMMISSIONER FIEGEN: Okay.

CHAIRMAN HANSON: There's ambiguity with them, and whoever's doing it should recognize that.

COMMISSIONER FIEGEN: Right. Thank you. Whenever you're ready, I'll be ready. Thanks.

CHAIRMAN HANSON: All right. Then I'll yield the floor to Commissioner Fiegen for comment on the main motion as amended. Unless you wish to go after someone else.

COMMISSIONER FIEGEN: I'll go after you, Mr. Chairman.

CHAIRMAN HANSON: All right. Well, Commissioner Nelson, you made the main motion so I'll let you go.

COMMISSIONER NELSON: I don't have much else to add. As I said when I made the Motion, I believe that through the hearing and the evidence that has been presented that the Applicant is entitled by law to this permit.

I believe that the conditions that we have put together are conditions necessary to protect the people and the property in that area. And I fully understand that there's a balance here, that not everyone in that area is going to be happy with this.

Obviously, Mr. Swanson believes that there are some property rights that have been taken away with this. That's an argument that, you know, he can make to Circuit Court, which is the appropriate place for that argument to be made. And, you know, we'll see whether he is right or not on that -- on the law.

But for the task that we have, that we have been given by statute, I believe the company is entitled to this permit and, hence, my Motion. Thank you.

CHAIRMAN HANSON: Thank you.

Throughout the process we have said a number of the things that I'll probably touch on at this time.

Wind dockets are always troubling to me. I shouldn't -- they didn't start out that way years ago, 17 years ago when we were first working on them. There's a lot of issues that have been clarified since that time, a lot of issues that we didn't even think about back then or realize and concerns that have been brought up. And they're challenging to me from the standpoint that I do believe that properties are affected. Certainly I think

we all agree, and that's why there's laws that have been passed.

Maybe it's the old legislator in me. When I was in the legislature we had the freedom to make decisions based upon how we felt from talking to lots of different folks, and we're constrained as Commissioners from that standpoint. We follow the law. If the law says this is what we do after we've gone over the entire process, then that's what we do.

And Staff brought out those five requirements that we had -- and they are requirements. We certainly must protect the citizens, but at the same time we have to follow the law. And if the Applicant proves that they fulfilled their requirements, then we're obliged to vote in favor of the permit with the conditions.

And I think we've provided some excellent conditions here. I would certainly like to have a couple more on there. They're not heartbreaking by any means to me. I won't regurgitate what they were but would very much have liked to have seen that.

A couple of areas that I'm uncomfortable with in dockets of this nature. One has to do with the valuation. I think we heard some real good lay testimony and exhibits on valuation, something that we had not heard prior to this.

It does appear both from expert and lay testimony that the valuation of properties -- the property values are affected by the proximity to a wind farm. It's a matter of -- well, I think it's supported by the fact that there's -- there's no disagreement that sound, light, flicker, aesthetics of a wind farm affect value. Otherwise, there wouldn't be any need for those issues to be part of it, to be used for determining setbacks, for instance.

So, obviously, it's not a question of whether wind farms affect a value; it's a question of how close is too close? At what distance do they -- is there too much flicker, is there too much sound, is there -- is the aesthetics wrong? And I think that's supported by evidence. It's supported by the facts of what has been presented to us.

I think that -- well, I really struggle with the whole thing because of that. And I think that Mr. Swanson's letter touched on that in a fashion that I guess I can consider to be very legitimate. I think his letter was -- I did not dismiss his letter by any means. I read it a couple times. I thought that it had some very good points.

And when it spoke to very much the affect that wind farms have on other properties, nonparticipants, and

he used the word "aggressively," that the wind farm was aggressively designed. He said that it was intended to hug the regulatory limits rather than limiting conflicts with nonparticipants. And I think that was a profound statement because certainly the wind farms do everything they can to get the very last wind turbine up that's going to the economic value to the wind farm.

And I recognize we do not legislate the setbacks, that that's done by the counties and the legislature. And so, you know, I would really encourage the counties and the legislature -- especially the counties that do not have a setback law and the legislature in that respect. Even the legislature from the standpoint of looking at this very seriously and the counties to revisit the setback laws and the regulations that they have overview.

And these are outside the Public Utilities Commission's ability. And so I -- lawful ability. And so I just wish to impress to the legislators that they have the freedom to make the laws. We have the responsibility to make certain that they're -- that we abide by them. And I'm just very concerned with that, concerned with -- I'd like to hear further information on the no such thing as moon flicker.

You know, I just do not accept the yardstick

experiment that is sufficient to disprove the theory that there's moon flicker. We didn't have evidence on that that we can use to support any decision that we make. However, I'd certainly like to hear more on that.

I'll end with that, but there's a lot of concerns that I have that I just don't feel that when we -- when we make these decisions we make them based upon the strongest testimony that we have. And that's proper. However, I think that the other parties, the Intervenors, are outgunned in many respects. Certainly they don't have millions of dollars to spend on these things. And so I just feel like I'm not getting the whole story when we make these decisions.

I'm going to obviously support the Motion because I think that's the proper thing to do and that we are in a position where we've done the very best that the Public Utilities Commission can do.

I congratulate our Staff and certainly the Applicants for the work that they've done. But I'd really like to also say the Intervenors came with a lot of ammunition, did an excellent job, and there are a number -- this final decision has their footprints on it. They have helped meld it and influence the conditions, and so they shouldn't go away thinking that they were at a loss because it wasn't killed.

The fact is, they helped make it a better piece, and for that we appreciate the Applicant and the Intervenors, the Staff for a tremendous amount of work that the average folks just don't understand how many thousands of pages and the amount of work that goes into something of this nature.

So, with that, I'd say thank you to my fellow Commissioners for all that you've done and gone through with this process as well.

And, Commissioner Fiegen, the floor is yours.

COMMISSIONER FIEGEN: Thank you, Commissioner Hanson.

Crowned Ridge II certainly has been a lengthy process, and not only lengthy today but the permit process is quite lengthy. And as a Public Utilities Commissioner we always have to look at federal law and state law and county laws and ordinances when we do a permit.

And so as a Commissioner I have to look at the record. And so I believe the Public Utilities Commission Staff and the developer has developed a record to approve the permit.

And we have to look at evidence and facts. And I asked the experts several questions, for example, on property rights and property valuations, and there was

nothing in the record that I have seen that would add another condition. And that's what I continue to look at, the record, the evidence, and the facts.

And the Public Utilities Commission Staff have really done a good job in developing conditions. And as we heard today, they worked with Intervenors. They worked with other interested parties like GF&P, and they also, of course, worked with the Applicant.

And I appreciate my fellow Commissioners even bringing additional conditions. And some of those conditions certainly weren't talked about at the evidentiary hearing but they added them today and I certainly appreciate that.

All parties have worked very hard, and I appreciate working with every one of them. But I certainly appreciate the Staff's additional negotiations on working with the developers.

So thank you to my fellow Commissioners, and I'll be supporting the Motion.

CHAIRMAN HANSON: Is there any further discussion on the Motion -- the main motion as amended?

Hearing no further discussion on the main motion as amended, Commissioner Nelson.

COMMISSIONER NELSON: Aye.

CHAIRMAN HANSON: Commissioner Fiegen.

COMMISSIONER FIEGEN: Commissioner Fiegen votes aye.

CHAIRMAN HANSON: Hanson votes aye. The Motion is carried.

Thank you all very much. And ordinarily I would say have a safe trip home, but I think just about everybody is.

STATE OF SOUTH DAKOTA)

:SS CERTIFICATE

COUNTY OF SULLY)

I, CHERI MCCOMSEY WITTLER, a Registered Professional Reporter, Certified Realtime Reporter and Notary Public in and for the State of South Dakota:

DO HEREBY CERTIFY that as the duly-appointed shorthand reporter, I took in shorthand the proceedings had in the above-entitled matter on the 17th day of March, 2020, and that the attached is a true and correct transcription of the proceedings so taken.

Dated at Onida, South Dakota this 10th day of April, 2020.

/s/ Cheri McComsey Wittler
Cheri McComsey Wittler,
Notary Public and
Registered Professional Reporter
Certified Realtime Reporter

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'er [1] - 19:20

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/s [1] - 74:17

1

1 [1] - 29:22
1,500-foot [1] - 14:14
10 [9] - 32:3, 33:21, 34:2, 35:15, 36:10, 60:4, 60:12, 60:13, 61:2
100 [1] - 43:9
10th [1] - 74:13
11 [1] - 32:7
11:07 [1] - 3:9
11:20 [3] - 3:10, 3:13
12 [3] - 8:2, 8:12, 20:6
14 [1] - 8:14
15 [4] - 9:11, 59:13, 62:10
15C [2] - 58:10, 58:15
17 [3] - 1:8, 3:16, 66:19
17th [2] - 2:4, 74:10

2

2 [4] - 29:24, 52:20, 57:6, 59:5
20 [4] - 25:8, 41:24, 42:15, 42:17
2020 [7] - 1:8, 2:5, 3:17, 8:2, 16:10, 74:11, 74:14
212 [2] - 12:8, 12:9
213 [1] - 1:24
22 [2] - 27:10, 60:2
24 [1] - 10:6
250 [1] - 8:12
26B [1] - 62:6
26C [4] - 21:25, 32:9, 33:5, 34:9
27 [1] - 16:10
29 [9] - 8:6, 15:20, 21:23, 30:3, 37:21, 37:22, 38:11, 40:6, 40:22

3

3 [1] - 30:3
30 [2] - 8:21, 41:25
33 [2] - 62:18, 62:19
33A [1] - 62:21
33E [1] - 63:7
34 [6] - 23:1, 23:3, 30:7, 30:8, 34:22, 37:7
35 [2] - 63:23, 64:5
37 [1] - 64:8

4

4 [2] - 30:7, 63:15
40 [13] - 9:10, 13:24, 30:20, 34:24, 45:6, 45:17, 47:9, 47:23, 48:3, 50:7, 50:13
41 [3] - 47:3, 64:10, 64:11
45 [2] - 7:4, 8:22
49 [1] - 54:5
49-41B-22 [1] - 6:17
49-41B-25 [2] - 5:21, 26:13
49-41B-25.2 [1] - 12:13
49-41B-29 [4] - 52:17, 53:11, 53:25, 55:16
49-41B-33 [1] - 48:12

5

5 [4] - 30:20, 45:5, 48:2, 60:2
50 [2] - 7:7, 8:23
500 [1] - 2:3

6

6 [3] - 30:24, 62:6, 62:11

7

7 [9] - 8:12, 16:12, 20:16, 24:18, 26:4, 31:5, 36:21, 62:1, 62:11
7:00 [2] - 14:11, 14:12

8

8 [4] - 20:4, 31:9, 62:16, 62:18
85 [1] - 8:16
8C [1] - 57:6

9

9 [1] - 31:22
9:30 [2] - 1:8, 2:5

A

a.m [3] - 1:8, 2:5, 14:12
abandonment [1] - 12:17
abide [2] - 54:1, 69:22
ability [2] - 69:18
able [6] - 13:22, 34:3, 39:8, 40:19, 42:16, 43:15
above-entitled [2] - 2:2, 74:10
absence [2] - 18:25, 46:7
absolutely [4] - 36:20, 46:3, 46:13, 54:25
AC-19 [1] - 6:24
accelerated [1] - 61:2
accept [2] - 34:14, 69:25
accepting [1] - 18:22
access [10] - 16:17, 16:20, 16:24, 20:18, 20:20, 20:21, 21:2, 25:17, 35:19, 58:17
accessory [1] - 7:9
accomplish [1] - 39:8
accordance [1] - 20:3
accordingly [1] - 9:20
account [7] - 63:8, 63:10, 63:17, 63:18, 63:19
accumulative [1] - 7:10
accuracy [2] - 11:23, 12:23
accurate [1] - 31:15
action [1] - 40:20
active [4] - 57:7, 57:9, 57:12, 57:20
Adam [4] - 1:13, 45:24, 46:1, 52:20
add [9] - 20:24, 22:11, 32:7, 43:8, 52:13, 52:15, 54:2, 65:22, 72:1
added [5] - 16:14, 22:2, 62:8, 62:11, 72:12
adding [2] - 32:21, 34:10
addition [4] - 7:21, 8:5, 24:21, 30:1
additional [9] - 16:14, 23:9, 29:24, 30:1, 39:19, 42:3, 52:15, 72:10, 72:16
additive [1] - 57:20
address [4] - 49:6, 49:10, 49:13, 58:5
addressed [1] - 14:16
addresses [1] - 8:6
adjective [1] - 59:24
adjoining [1] - 42:10
ADLS [5] - 8:1, 8:4, 12:15, 20:5, 30:12
admitted [1] - 11:24
adopt [2] - 8:8, 55:20
adverse [2] - 14:1, 18:6
adversely [1] - 24:14
advised [1] - 29:2
aesthetics [2] - 68:6, 68:14
affect [6] - 24:10, 24:14, 25:23, 68:6, 68:11, 68:24
affected [3] - 24:9, 66:25, 68:3
afforded [1] - 14:17
aforementioned [1] - 11:17
afterwards [1] - 64:24
ag [1] - 31:24
agencies [1] - 7:24
agenda [1] - 3:17
aggressively [2] - 69:1, 69:2
ago [3] - 42:15, 66:19, 66:20
agree [10] - 34:18, 34:19, 37:23, 39:2, 41:2, 46:23, 53:19, 53:24, 54:1, 67:1
agreed [12] - 8:25, 13:22, 16:3, 16:21, 17:8, 19:18, 19:22, 30:25, 40:7, 40:11, 40:12, 43:16
agreeing [1] - 50:5
agreement [3] - 16:18, 63:14
agreements [1] - 58:4
agrees [5] - 38:13, 39:7, 49:8, 52:10, 55:18
agricultural [1] - 35:3
ahead [8] - 21:19, 22:18, 39:12, 49:19, 53:16, 55:25, 57:15, 64:20
air [12] - 12:2, 12:4, 13:10, 23:3, 23:25, 24:5, 24:8, 24:15, 25:10, 25:20, 25:22
aircraft [1] - 35:2
airport [1] - 18:20
Allen [1] - 4:24
allow [8] - 16:23, 20:17, 20:20, 21:2, 21:9, 26:3, 35:17
allowed [2] - 9:18, 58:13
allowing [1] - 17:11
alter [2] - 17:16, 58:7
alternate [1] - 14:8
alternative [3] - 8:25, 14:24, 19:23
Amanda [9] - 1:22, 4:16, 15:7, 15:8, 22:20, 23:8, 49:1, 56:13, 61:4
Amber [4] - 1:19, 4:23, 5:8, 11:5
ambiguity [1] - 65:9
amend [28] - 26:15, 34:8, 34:14, 35:8, 35:15, 35:21, 35:22, 36:5, 36:10, 36:12, 39:11, 44:10, 44:17, 45:2, 50:12, 50:14, 51:1, 51:2, 51:14, 52:4, 52:7, 53:6, 54:2, 57:4, 58:23, 60:16, 62:1, 62:2
amended [18] - 8:6, 29:18, 36:12, 51:1, 51:2, 51:10, 51:13, 51:14, 51:22, 53:13, 57:5, 62:1, 64:18, 64:20, 65:15, 72:21, 72:23
amending [2] - 21:3, 65:2
amendment [16] - 22:3, 23:13, 29:9, 30:24, 31:3, 34:6, 35:1, 35:3, 37:14, 40:6, 40:22, 41:3, 41:10, 50:15, 65:3
amendment's [1] - 33:12
amendments [8] - 26:4, 26:17, 26:24, 27:2, 29:7, 33:11, 35:16, 53:5
ammunition [1] - 70:21
amount [5] - 14:7, 17:11, 18:14, 71:3, 71:5
analysis [1] - 16:20
AND [1] - 1:5
animal [1] - 24:8
animals [1] - 43:4
annoyance [1] - 13:25
annually [2] - 8:21, 9:11
answer [10] - 20:23, 25:24, 29:21, 32:12, 44:4, 45:20, 54:10, 54:19, 54:21, 64:6
answered [1] - 21:22
appear [2] - 55:23,

68:1
appearing [4] - 1:18, 1:20, 1:21, 1:23
applicable [3] - 6:18, 7:15, 17:21
Applicant [68] - 6:15, 7:14, 7:19, 7:25, 8:3, 8:14, 8:20, 8:25, 9:3, 9:24, 10:2, 10:19, 11:7, 11:9, 11:16, 11:22, 11:24, 12:3, 12:14, 12:15, 12:19, 12:24, 13:2, 13:4, 13:6, 13:7, 13:8, 13:22, 16:19, 16:21, 16:23, 17:4, 17:7, 20:17, 20:19, 25:1, 29:11, 30:11, 31:1, 31:22, 38:1, 38:12, 39:6, 43:24, 44:12, 45:8, 46:14, 52:10, 52:12, 59:6, 59:13, 59:16, 59:17, 60:1, 61:17, 62:20, 62:22, 62:25, 63:2, 63:24, 65:24, 67:13, 71:2, 72:8
Applicant's [3] - 13:20, 14:2, 14:25
applicants [7] - 8:7, 14:19, 14:20, 35:17, 52:12, 59:5, 70:19
APPLICATION [1] - 1:4
application [3] - 8:3, 20:6, 32:1
Application [6] - 5:15, 12:22, 13:10, 14:23, 15:1, 17:19
Applications [1] - 17:18
applicators [1] - 31:24
applied [1] - 12:14
applies [1] - 52:14
apply [6] - 30:12, 52:16, 53:10, 54:9, 55:7, 55:8
appointed [1] - 74:8
appreciate [25] - 21:23, 32:23, 35:1, 35:3, 36:18, 36:19, 39:15, 39:18, 41:10, 44:3, 44:9, 45:20, 49:18, 50:2, 50:4, 50:9, 53:20, 56:18, 56:23, 58:9, 71:2, 72:9, 72:13, 72:15, 72:16
appreciates [1] - 38:7
appropriate [3] - 20:8, 55:10, 66:9
appropriately [1] - 8:20
approval [4] - 8:3, 12:14, 55:17, 64:1
approve [1] - 71:21
approved [1] - 8:1
April [1] - 74:14
aquatic [2] - 25:14, 25:15
area [8] - 16:24, 18:10, 18:12, 33:19, 35:19, 43:6, 66:3, 66:5
areas [5] - 14:23, 32:20, 36:24, 47:15, 67:21
argue [1] - 9:9
argued [1] - 17:10
arguing [1] - 55:13
argument [8] - 17:14, 18:13, 18:16, 18:22, 19:1, 60:1, 66:8, 66:9
articulate [1] - 40:19
articulated [1] - 40:18
aside [1] - 16:3
assess [1] - 15:24
asset [1] - 13:13
assist [2] - 22:4, 34:10
assume [7] - 14:15, 26:4, 27:3, 28:18, 37:18, 58:22, 59:25
assumed [1] - 53:20
assuming [2] - 27:1, 34:19
attach [1] - 26:13
attached [3] - 15:13, 29:15, 74:11
Attachment [1] - 16:11
attachments [2] - 31:11, 31:19
attempted [1] - 49:6
attention [4] - 53:19, 53:21, 64:13, 65:5
attest [1] - 46:2
attorney [2] - 45:20, 52:25
attorneys [1] - 45:16
authority [6] - 16:16, 16:20, 30:22, 48:13, 49:9, 55:20
available [2] - 4:24, 19:7
Avenue [1] - 2:4
average [1] - 71:4
avian [4] - 8:7, 42:23, 43:22, 44:6
aware [2] - 4:6, 58:12
aye [16] - 35:9, 35:11, 35:12, 35:24, 36:1, 44:25, 50:23, 51:17, 51:19, 51:20, 61:21, 61:23, 61:24, 72:24, 73:2, 73:3

B

background [1] - 40:1
balance [2] - 12:20, 66:4
barns [1] - 7:10
Based [1] - 16:2
based [4] - 16:8, 16:20, 67:5, 70:7
baseless [1] - 9:13
basis [2] - 9:22, 57:21
bat [2] - 8:7, 40:9
batch [7] - 12:1, 12:7, 12:9, 17:5, 17:7, 19:17, 19:22
bats [1] - 43:4
Baucom [1] - 1:16
became [2] - 41:6, 41:8
becomes [1] - 47:8
BEFORE [1] - 1:10
begin [3] - 6:1, 6:11, 29:11
beginning [4] - 19:19, 20:23, 58:16, 63:19
behalf [2] - 1:18, 1:23
behind [1] - 56:9
behind-the-scenes [1] - 56:9
believes [2] - 21:4, 66:6
benefit [2] - 27:25, 43:18
benefits [1] - 8:10
best [2] - 14:25, 70:16
better [6] - 42:24, 42:25, 44:14, 53:1, 54:10, 71:1
between [1] - 37:25
beyond [1] - 54:3
bird [1] - 40:9
birds [4] - 25:6, 25:8, 32:24, 43:4
bit [12] - 26:18, 29:24, 30:10, 31:7, 33:11, 33:19, 34:22, 36:23, 41:22, 44:5, 58:6, 60:19
bite [1] - 50:24
blade [2] - 31:11, 31:19
blades [1] - 36:19
blocking [1] - 18:14
book [1] - 48:11
bottom [1] - 62:7
break [3] - 3:3, 3:6, 3:7
Brian [3] - 1:18, 4:9, 22:10
brief [13] - 8:5, 8:14, 9:13, 11:20, 13:18, 15:10, 15:17, 16:9, 16:13, 16:22, 17:10, 18:3, 19:14
bring [2] - 64:12, 65:4
bringing [3] - 53:19, 53:21, 72:10
brings [2] - 35:14, 36:3
brought [2] - 66:23, 67:10
bubbled [1] - 29:18
build [3] - 47:13, 47:15, 47:20
Building [1] - 2:3
built [3] - 12:11, 12:17, 13:16
burden [12] - 6:16, 7:14, 10:19, 11:8, 11:16, 13:20, 14:21, 14:22, 15:11, 19:17, 20:7, 29:12
business [7] - 60:6, 60:13, 60:15, 60:21, 61:2, 61:7, 61:14
businesses [1] - 53:4
BY [1] - 1:4

C

cake [1] - 43:14
calendar [6] - 60:4, 60:6, 60:15, 60:20, 60:21, 61:7
cannot [1] - 23:5
Capitol [2] - 2:3
care [2] - 33:24, 57:3
carried [1] - 73:4
carries [4] - 35:13, 36:2, 51:21, 61:25
carrying [1] - 11:3
case [1] - 34:23
cases [1] - 62:12
caused [1] - 58:2
causes [1] - 38:18
cement [1] - 12:1
certain [6] - 3:18, 15:13, 53:2, 61:17, 62:14, 69:21
certainly [23] - 26:2, 29:1, 29:21, 35:1, 38:7, 41:9, 46:1, 50:2, 50:9, 52:25, 53:24, 59:5, 66:25, 67:11, 67:17, 69:5, 70:4, 70:10, 70:18, 71:13, 72:11, 72:13, 72:16
CERTIFICATE [1] - 74:2
Certified [2] - 74:6, 74:19
CERTIFY [1] - 74:8
cetera [8] - 24:1, 25:20, 42:23, 52:11, 58:23, 64:9
Chairman [19] - 3:6, 4:11, 6:13, 19:13, 21:20, 21:21, 27:14, 28:12, 33:4, 37:6, 39:13, 39:24, 40:25, 48:17, 49:24, 52:1, 58:25, 59:11, 65:18
CHAIRMAN [102] - 1:10, 1:11, 3:1, 3:7, 3:15, 3:23, 4:2, 4:6, 4:13, 4:19, 4:25, 5:6, 5:9, 10:11, 10:23, 15:3, 19:10, 19:19, 20:10, 21:5, 22:16, 22:18, 23:16, 23:19, 23:23, 24:7, 25:18, 27:1, 27:9, 27:20, 28:6, 28:14, 28:17, 28:21, 28:24, 29:7, 32:17, 33:8, 33:14, 34:1, 34:13, 35:5, 35:10, 35:12, 35:25, 36:2, 36:11, 36:20, 37:8, 37:16, 39:2, 40:24, 41:11, 42:19, 43:12, 44:3, 44:21, 44:24, 45:25, 46:11, 46:21, 47:10, 48:16, 48:18, 49:19, 49:22, 49:25, 50:11, 50:19, 50:22, 51:6, 51:8, 51:10, 51:12, 51:18, 51:20, 52:3, 52:6, 54:4, 54:20, 55:2, 55:22, 56:1, 56:22, 57:15, 58:9, 59:4, 59:14, 59:20, 59:22, 61:12, 61:22, 61:24, 64:23, 65:4, 65:9, 65:13, 65:19, 66:15, 72:20, 72:25, 73:3
challenging [2] - 33:20, 66:24
change [11] - 15:19, 16:12, 24:17, 24:21, 30:3, 52:12, 58:18, 60:14, 61:10, 62:17, 63:4

changed [4] - 32:6, 47:15, 59:25, 64:8
changes [13] - 15:16, 20:15, 31:8, 36:22, 36:24, 37:18, 47:18, 58:19, 59:3, 62:2, 63:3, 64:11, 65:5
changing [1] - 61:8
chapter [1] - 55:21
chat [1] - 58:13
chats [1] - 3:12
check [4] - 4:2, 12:21, 54:5, 64:5
CHERI [1] - 74:5
Cheri [4] - 1:24, 5:12, 74:17, 74:18
chestnut [1] - 25:6
chestnut-collered [1] - 25:6
CHRIS [1] - 1:11
CHRISTENSON [4] - 4:23, 5:3, 11:5, 28:20
Christenson [8] - 1:19, 4:20, 4:23, 5:1, 11:3, 11:5, 15:4, 28:19
Circuit [1] - 66:8
cite [2] - 55:5, 55:10
cited [2] - 9:15, 9:17
citizens [1] - 67:12
claim [1] - 6:21
clarification [2] - 17:15, 65:7
clarified [1] - 66:21
clean [1] - 50:6
cleaned [1] - 31:7
clear [12] - 23:2, 24:25, 30:10, 45:16, 45:17, 45:18, 46:13, 47:19, 48:12, 52:8, 53:3, 53:7
clearly [4] - 34:23, 47:7, 54:16, 58:7
close [2] - 68:11, 68:12
closed [1] - 12:9
CODINGTON [1] - 1:6
Codington [2] - 5:17, 6:20
collaborators [1] - 43:10
colleagues [1] - 44:11
collered [1] - 25:6
comfortable [2] - 38:2, 41:8
coming [2] - 32:23, 48:10
commencing [1] - 2:5
comment [3] - 39:10, 51:12, 65:14
comments [3] - 20:5, 33:1, 33:11
commercial [7] - 23:4, 23:6, 30:14, 30:15, 30:19, 31:12, 31:20
COMMISSION [3] - 1:1, 1:10, 1:12
Commission [30] - 3:16, 5:18, 5:22, 8:8, 9:9, 10:21, 11:19, 12:16, 13:20, 14:4, 14:19, 14:24, 15:12, 15:18, 19:8, 26:10, 49:12, 55:17, 55:19, 56:6, 58:7, 62:4, 62:9, 62:12, 63:25, 70:17, 71:20, 72:4
Commission's [1] - 69:18
COMMISSIONER [77] - 1:11, 3:4, 3:21, 3:25, 21:13, 21:17, 21:20, 22:12, 22:15, 22:22, 22:25, 23:12, 23:17, 26:7, 27:6, 27:23, 29:1, 29:10, 33:4, 33:10, 34:6, 34:17, 35:9, 35:11, 35:24, 36:1, 36:7, 36:15, 37:6, 37:9, 37:12, 37:15, 38:21, 39:13, 40:25, 44:19, 44:23, 48:9, 48:17, 48:19, 49:16, 49:20, 49:24, 50:1, 50:18, 50:20, 51:4, 51:7, 51:9, 51:11, 51:17, 51:19, 51:25, 52:5, 53:15, 53:17, 53:23, 54:22, 55:13, 55:25, 56:5, 56:17, 58:25, 59:11, 60:24, 61:11, 61:21, 61:23, 64:21, 65:1, 65:8, 65:11, 65:17, 65:21, 71:11, 72:24, 73:1
Commissioner [78] - 3:20, 3:21, 3:23, 14:16, 20:11, 21:13, 21:15, 22:9, 22:16, 22:21, 23:16, 26:3, 26:6, 26:7, 26:25, 28:25, 30:9, 31:2, 32:8, 32:18, 32:25, 33:3, 33:6, 33:8, 34:4, 34:7, 34:25, 35:8, 35:10, 35:23, 35:25, 36:4, 36:5, 36:13, 36:16, 37:7, 38:9, 39:14, 39:25, 40:24, 41:1, 41:2, 44:18, 44:21, 44:24, 48:10, 48:18, 48:21, 48:25, 49:16, 50:17, 50:19, 50:20, 50:22, 51:16, 51:18, 51:24, 53:15, 53:16, 53:18, 54:20, 55:23, 56:4, 59:1, 60:24, 61:3, 61:20, 61:22, 65:14, 65:19, 71:10, 71:11, 71:16, 71:19, 72:23, 72:25, 73:1
Commissioners [20] - 3:2, 3:19, 4:5, 11:10, 21:12, 26:21, 28:1, 32:14, 47:21, 47:22, 47:24, 48:8, 58:22, 62:5, 63:5, 64:15, 67:6, 71:8, 72:9, 72:18
committed [1] - 7:25
common [1] - 9:13
communication [1] - 17:4
community [2] - 8:10, 18:5
company [1] - 66:13
compellingly [1] - 40:15
complaints [1] - 13:25
complete [2] - 11:25, 30:8
completed [2] - 31:12, 40:13
completely [2] - 14:21, 18:21
completion [1] - 31:10
compliance [2] - 7:1, 7:4
complies [1] - 6:22
comply [8] - 6:18, 7:3, 7:15, 11:11, 12:4, 13:5, 17:20, 55:18
compressed [2] - 56:24, 60:11
compromise [2] - 42:6, 42:20
computer [3] - 33:17, 64:5
computers [1] - 33:18
concept [1] - 18:18
concern [10] - 14:17, 24:25, 25:2, 25:5, 38:19, 41:5, 49:2, 52:22, 58:1, 61:8
concerned [11] - 24:10, 24:13, 24:16, 25:21, 25:23, 36:21, 41:6, 48:22, 58:18, 69:22, 69:23
concerns [15] - 12:1, 17:4, 17:7, 24:3, 25:9, 32:20, 37:4, 37:5, 45:14, 49:7, 49:14, 53:6, 56:14, 66:23, 70:6
conclusions [1] - 13:19
Conclusions [1] - 11:21
conclusive [1] - 46:4
Condition [7] - 20:4, 21:23, 21:25, 23:1, 23:3, 40:6, 40:22
condition [24] - 7:18, 8:6, 15:20, 16:7, 16:14, 16:22, 17:23, 20:4, 21:1, 22:4, 22:11, 23:11, 45:19, 46:14, 49:3, 49:4, 49:6, 49:10, 49:13, 57:17, 58:7, 72:2
conditional [2] - 7:20, 10:17
conditioned [1] - 45:8
conditions [32] - 5:19, 13:19, 15:13, 15:14, 15:15, 19:2, 20:3, 23:14, 26:13, 29:15, 32:2, 34:20, 45:11, 48:14, 52:16, 53:7, 53:10, 54:2, 54:9, 55:6, 55:8, 55:18, 56:11, 56:16, 66:1, 66:2, 67:15, 67:17, 70:23, 72:5, 72:10, 72:11
conduct [2] - 16:24, 42:11
conducted [2] - 38:13, 42:22
conducting [1] - 21:1
conferred [1] - 61:9
confident [1] - 31:18
confirm [1] - 19:24
confirmation [1] - 22:7
conflicts [1] - 69:3
congratulate [1] - 70:18
conjunction [2] - 40:16, 46:18
consider [5] - 37:14, 62:3, 63:2, 65:6, 68:20
considered [2] - 17:17, 18:15
consistent [2] - 8:24, 16:1
constrained [1] - 67:6
construct [1] - 59:6
construction [13] - 5:20, 8:12, 10:4, 12:8, 14:11, 18:23, 26:11, 57:7, 57:9, 57:11, 57:18, 57:25, 63:25
consultations [1] - 7:24
contacting [2] - 22:5, 34:11
contained [1] - 55:19
context [1] - 40:1
continue [2] - 26:15, 72:2
contract [1] - 53:3
contracts [1] - 57:8
contrary [2] - 6:21, 9:7
control [1] - 20:3
conversations [1] - 19:25
cooperate [1] - 31:24
copy [2] - 33:15, 33:22
correct [9] - 5:7, 22:23, 23:5, 23:20, 36:11, 36:17, 37:10, 74:11
correctly [2] - 49:4, 61:5
counties [6] - 7:20, 10:18, 69:9, 69:11, 69:12, 69:15
Counties [2] - 5:17, 6:20
COUNTIES [1] - 1:6
COUNTY [1] - 74:3
county [4] - 6:19, 7:11, 14:18, 71:17
County [3] - 6:23, 7:1, 12:22
couple [10] - 21:16, 21:21, 28:11, 37:3, 49:17, 49:21, 50:8, 67:17, 67:21, 68:22
course [4] - 25:23, 46:5, 56:6, 72:8
court [1] - 18:17
Court [2] - 18:25, 66:9
courts [1] - 18:18
cover [1] - 59:2
covered [6] - 46:24, 47:2, 54:24, 55:1, 55:3, 56:2
craft [1] - 49:6
crane [4] - 30:24, 31:3, 32:22, 37:5
credible [1] - 9:24
Cremer [8] - 1:13,

45:22, 46:8, 46:20, 54:4, 54:12, 54:13, 59:12
CREMER [7] - 45:22, 46:9, 46:20, 46:22, 54:13, 59:15, 59:21
criteria [1] - 11:22
cross [2] - 9:16, 17:11
cross-examination [1] - 9:16
crosses [1] - 18:15
Crowned [51] - 1:18, 4:3, 5:15, 5:20, 5:24, 6:1, 6:3, 6:9, 6:11, 6:14, 6:24, 12:21, 15:11, 15:25, 16:6, 16:17, 16:23, 17:1, 19:11, 20:18, 20:21, 20:25, 21:6, 21:8, 21:25, 22:8, 22:10, 26:12, 27:19, 31:11, 31:13, 31:20, 35:17, 39:16, 39:20, 39:23, 40:7, 40:13, 40:14, 42:1, 42:10, 42:12, 45:23, 46:2, 46:10, 50:5, 61:9, 71:13
CROWNED [1] - 1:4
CRR [1] - 1:24
crystal [1] - 48:12
cultural [1] - 7:23
cumulative [2] - 7:4, 7:8
curious [1] - 20:19
cut [2] - 19:19, 28:14

D

Dakota [18] - 1:24, 2:3, 2:4, 3:16, 8:13, 11:11, 11:23, 12:23, 14:25, 16:8, 24:23, 25:11, 40:12, 41:19, 42:15, 43:20, 74:7, 74:13
DAKOTA [2] - 1:2, 74:1
Darren [3] - 1:15, 15:6, 20:23
data [3] - 40:8, 40:10, 40:12
date [3] - 30:14, 30:16, 30:19
Dated [1] - 74:13
daycare [2] - 17:5, 17:6
days [13] - 10:6, 60:5, 60:6, 60:7, 60:10, 60:12, 60:13, 60:15, 61:2, 61:7, 61:14
dBA [7] - 7:4, 7:7, 8:22, 8:23, 9:10, 13:24
de [2] - 1:13, 18:16
deal [4] - 32:14, 37:20, 39:4, 61:15
deals [1] - 30:7
December [1] - 22:2
decent [1] - 38:17
decided [1] - 52:21
decision [4] - 9:22, 46:2, 70:3, 70:22
decisions [3] - 67:4, 70:7, 70:13
decline [1] - 25:8
decommission [1] - 63:16
decommissioned [1] - 63:9
decommissioning [2] - 63:11, 63:20
deficient [1] - 15:1
definitely [1] - 39:5
delete [3] - 30:20, 45:5, 48:2
deleted [2] - 34:24, 48:23
deleting [4] - 47:23, 48:2, 48:7, 50:12
deletion [1] - 50:13
demand [1] - 29:18
demonstrate [1] - 19:16
demonstrated [1] - 7:19
demonstrates [2] - 10:9, 10:14
DENR [2] - 24:2, 25:19
deny [2] - 5:19, 14:25
Department [1] - 25:11
deprivation [1] - 13:25
describing [1] - 26:23
description [1] - 13:8
designed [1] - 69:2
despite [2] - 12:13, 16:18
detection [2] - 23:3, 23:6
determine [1] - 17:19
determined [1] - 16:19
determining [1] - 68:8
Deuel [2] - 5:17, 6:19
DEUEL [1] - 1:5
developed [1] - 71:21
developer [1] - 71:21
developers [1] - 72:17
developing [1] - 72:5
development [3] - 10:16, 18:2, 19:6
different [12] - 21:7, 33:17, 40:15, 43:2, 47:22, 49:14, 52:24, 54:23, 59:24, 60:6, 64:4, 67:5
differently [1] - 36:23
difficult [1] - 28:8
dilatory [1] - 61:15
diligence [1] - 57:2
directly [1] - 14:2
disagree [3] - 54:25, 63:5, 63:6
disagreement [1] - 68:5
discuss [2] - 34:1, 34:2
discussed [4] - 20:16, 28:9, 34:15, 38:16
discussion [37] - 5:12, 5:23, 34:5, 34:16, 35:6, 35:7, 35:14, 35:19, 35:21, 36:3, 38:15, 38:20, 39:5, 39:11, 41:4, 44:16, 45:1, 48:8, 50:12, 50:14, 51:2, 51:15, 51:23, 52:1, 53:11, 54:14, 54:16, 54:23, 56:18, 56:23, 60:23, 61:5, 61:12, 61:19, 64:19, 72:21, 72:22
discussions [7] - 16:15, 29:16, 39:22, 40:1, 45:14, 49:5, 53:14
dismiss [1] - 68:21
disposal [1] - 13:5
disprove [1] - 70:1
distance [1] - 68:12
DO [1] - 74:8
docket [7] - 5:4, 5:10, 27:11, 27:16, 28:3, 41:20, 56:19
dockets [7] - 9:16, 25:2, 46:19, 47:5, 61:5, 66:18, 67:22
doctor [1] - 9:3
document [5] - 27:25, 45:16, 46:12, 48:4, 52:9
dollars [2] - 44:13, 70:11
done [10] - 20:6, 26:8, 42:14, 53:20, 63:13, 69:9, 70:16, 70:19, 71:8, 72:5
dot [1] - 60:3
doubt [1] - 27:3
down [4] - 31:25, 52:21, 59:8, 60:10
draw [1] - 40:10
due [2] - 17:5, 57:2
duly [1] - 74:8
duly-appointed [1] - 74:8
during [8] - 10:4, 11:24, 12:7, 12:11, 13:21, 29:23, 30:25, 39:21

E

e-mail [1] - 26:19
e-mailed [1] - 27:25
e-mailing [2] - 28:2, 52:20
early [1] - 52:22
ease [1] - 26:22
easement [3] - 8:15, 8:16, 18:16
easier [1] - 60:19
easily [1] - 54:6
East [1] - 2:3
easy [1] - 32:8
eat [1] - 43:15
economic [4] - 7:18, 8:9, 17:23, 69:7
editorial [1] - 51:12
Edwards [2] - 1:22, 15:7
effect [4] - 16:25, 24:7, 24:13, 24:15
effective [1] - 31:25
effectively [1] - 18:23
effects [10] - 14:1, 18:6, 18:11, 24:3, 24:11, 25:14, 25:22, 38:3, 40:9, 41:23
efficiency [1] - 13:3
effort [2] - 50:5, 50:10
Ehlebracht [1] - 9:12
either [1] - 33:13
EL19-027 [4] - 1:4, 3:1, 5:10, 26:10
element [1] - 6:17
elsewhere [1] - 47:18
encourage [1] - 69:10
end [3] - 32:22, 63:22, 70:5
Energy [2] - 16:2, 16:3
energy [9] - 5:16, 5:20, 10:21, 18:24, 25:2, 25:14, 26:11, 41:24, 42:5
ENERGY [1] - 1:5
ensure [3] - 11:13, 18:4, 18:5
ensures [1] - 19:2
ensuring [2] - 11:11, 17:21
entire [1] - 67:8
entirety [1] - 37:23
entities [2] - 21:8, 58:5
entitled [5] - 2:2, 29:13, 65:24, 66:13, 74:10
Environment [1] - 25:12
environment [7] - 7:17, 7:23, 11:14, 13:9, 17:23, 19:3, 24:15
environmental [1] - 24:1
equip [1] - 7:25
Eric [2] - 1:15, 15:6
escrow [6] - 63:8, 63:10, 63:14, 63:17
especially [2] - 56:24, 69:11
essentially [2] - 16:23, 42:16
establish [1] - 11:7
established [1] - 10:3
estimate [1] - 13:2
et [8] - 24:1, 25:20, 42:23, 52:11, 58:23, 64:9
evaluate [1] - 16:25
evidence [14] - 7:16, 7:21, 9:7, 9:21, 9:25, 10:6, 12:3, 13:4, 18:6, 65:23, 68:15, 70:2, 71:23, 72:3
evidentiary [3] - 13:21, 16:16, 72:12
exactly [2] - 26:8, 59:1
examination [1] - 9:16
example [1] - 71:24
exceed [2] - 7:4, 10:2
excellent [2] - 67:16, 70:21
except [1] - 58:13
exception [1] - 37:24
excess [1] - 59:17
excited [2] - 42:11, 63:21
exclude [1] - 47:12
excuse [11] - 6:2, 11:6, 22:18, 23:23, 24:22, 27:9, 43:11, 55:7, 55:23, 57:15, 64:20
executed [2] - 8:15, 8:17
Exhibit [9] - 6:24, 15:15, 16:12, 20:16, 24:18, 26:4, 26:14,

29:8, 29:14
exhibit [1] - 51:8
exhibits [1] - 67:24
exist [1] - 17:17
existing [2] - 13:9, 40:8
expanded [1] - 30:17
expected [1] - 13:3
expeditiously [1] - 61:6
experience [1] - 9:4
experiment [1] - 70:1
expert [2] - 9:8, 68:1
expertise [1] - 25:13
experts [1] - 71:24
explain [2] - 27:8, 32:19
explained [3] - 16:9, 25:22, 55:3
explanation [1] - 58:6
explanatory [1] - 27:24
express [1] - 17:6

F

FAA [6] - 8:1, 8:3, 12:14, 20:6, 30:13, 37:13
facilitate [1] - 60:18
facilities [1] - 42:18
FACILITY [1] - 1:5
facility [12] - 5:16, 5:20, 10:21, 16:17, 17:6, 17:20, 17:21, 17:24, 18:1, 26:12, 42:10
Fact [1] - 11:20
fact [5] - 30:15, 46:3, 47:7, 68:5, 71:1
facto [1] - 18:16
facts [3] - 68:15, 71:23, 72:3
failed [3] - 14:21, 14:22, 14:23
fails [3] - 18:16, 44:25, 50:24
fall [2] - 48:25, 63:3
falling [1] - 48:6
falls [1] - 59:8
family [1] - 13:14
far [1] - 59:8
farm [4] - 68:4, 68:6, 69:1, 69:7
farms [3] - 68:11, 68:25, 69:5
fashion [3] - 24:9, 61:16, 68:19
fatality [1] - 15:25
favor [2] - 50:16, 67:15
February [1] - 16:10
federal [2] - 39:7, 71:16
fee [1] - 12:22
feelings [1] - 38:22
feet [1] - 14:8
fellow [11] - 28:1, 32:13, 47:24, 48:8, 58:21, 62:5, 63:5, 64:14, 71:7, 72:9, 72:18
felt [4] - 39:4, 42:6, 45:7, 67:5
few [4] - 14:8, 27:21, 28:6, 36:14
FFA [3] - 37:11, 37:13, 37:17
Fiegen [40] - 3:20, 14:16, 21:14, 22:9, 22:16, 22:21, 30:9, 32:25, 33:3, 33:6, 33:9, 34:4, 35:10, 35:11, 35:25, 36:1, 36:4, 36:13, 36:16, 39:14, 39:25, 40:24, 41:1, 44:21, 44:23, 48:18, 50:19, 50:20, 51:18, 51:19, 51:24, 53:16, 55:24, 56:4, 61:22, 61:23, 65:14, 71:10, 72:25, 73:1
FIEGEN [49] - 1:11, 3:4, 3:21, 21:13, 21:20, 22:12, 22:15, 22:22, 22:25, 23:12, 33:10, 34:6, 34:17, 35:11, 36:1, 36:15, 37:6, 37:9, 37:15, 39:13, 40:25, 44:23, 48:17, 48:19, 49:16, 49:20, 49:24, 50:1, 50:20, 51:4, 51:7, 51:9, 51:11, 51:19, 51:25, 52:5, 53:17, 55:25, 56:5, 56:17, 59:11, 61:23, 64:21, 65:1, 65:8, 65:11, 65:17, 71:11, 73:1
Fiegen's [3] - 3:21, 32:8, 32:18
file [3] - 20:2, 20:5, 63:24
filed [4] - 8:3, 8:5, 9:12, 15:10
filing [2] - 41:8, 41:9
final [2] - 31:6, 70:22
finally [2] - 20:4, 41:15
findings [1] - 13:18
Findings [1] - 11:20
fine [1] - 32:15
first [18] - 3:17, 6:3, 6:17, 11:12, 15:19, 19:15, 21:15, 21:22, 30:11, 31:4, 35:16, 38:11, 45:3, 45:4, 46:23, 47:1, 62:21, 66:20
Fish [16] - 16:1, 16:8, 20:20, 21:3, 21:4, 21:10, 23:20, 23:22, 24:2, 24:23, 35:17, 38:23, 41:19, 42:4, 43:1, 43:20
fit [1] - 58:8
fits [1] - 40:20
five [2] - 5:24, 67:10
fix [1] - 14:8
fleshed [1] - 20:12
flicker [12] - 6:25, 8:21, 9:10, 14:3, 14:6, 17:11, 18:8, 68:6, 68:13, 69:24, 70:2
floor [3] - 33:3, 65:14, 71:10
folks [3] - 58:12, 67:6, 71:4
follow [4] - 5:14, 34:3, 67:7, 67:13
following [1] - 2:1
footnote [1] - 8:14
footprints [2] - 42:13, 70:22
FOR [1] - 1:5
foremost [1] - 11:12
forget [1] - 44:7
form [1] - 26:17
forth [1] - 48:6
forward [1] - 61:6
foundation [1] - 29:15
four [5] - 8:25, 14:4, 38:18, 60:10, 62:7
fragmentation [1] - 25:3
frame [2] - 41:23, 61:2
frames [1] - 56:24
free [1] - 58:7
freedom [2] - 67:4, 69:20
frequency [1] - 13:11
Friday [1] - 60:7
friendly [3] - 22:3, 35:6, 37:14
front [2] - 62:11, 62:15
FSA [1] - 37:9
fulfilled [1] - 67:14
fully [1] - 66:3
fund [4] - 16:5, 39:7, 43:22, 43:24
funded [1] - 12:16
funding [3] - 63:10, 63:11, 63:16
funds [3] - 16:3, 40:17, 63:19
future [13] - 45:8, 50:25, 52:12, 52:14, 52:16, 53:2, 53:8, 53:10, 54:9, 55:7, 55:8, 57:18, 61:17

G

gain [1] - 48:13
Game [15] - 16:8, 20:20, 21:3, 21:4, 21:10, 23:20, 23:22, 24:2, 24:23, 35:17, 38:23, 41:19, 42:4, 43:1, 43:20
GARY [1] - 1:10
general [3] - 24:16, 57:24, 58:2
generally [2] - 18:18, 25:15
generated [1] - 58:17
GF&P [8] - 16:16, 16:19, 35:18, 38:1, 40:7, 40:16, 40:18, 72:7
given [2] - 29:25, 66:13
glasses [1] - 44:22
goal [1] - 50:6
Goodwin [6] - 17:9, 18:3, 18:11, 18:13, 18:22, 19:1
governmental [1] - 9:14
grammatical [12] - 31:6, 31:8, 36:22, 37:18, 58:19, 59:3, 59:23, 62:2, 63:3, 63:4, 64:7, 65:5
Grant [5] - 5:17, 6:19, 6:23, 7:1, 12:22
GRANT [1] - 1:5
grant [8] - 5:18, 5:19, 10:21, 15:12, 17:16, 20:8, 26:11, 39:7
granted [2] - 7:19, 55:20
granting [3] - 10:17, 17:10, 19:1
grassland [3] - 25:4, 25:5, 25:7
grasslands [1] - 25:3
great [5] - 4:2, 29:14, 34:13, 42:19, 47:11
Greg [1] - 1:14
Group [3] - 17:9, 18:3, 18:11
group [4] - 4:10, 4:21, 5:4, 32:15
Group's [3] - 18:13, 18:22, 19:1
grouse [3] - 17:2, 25:6, 42:2
guess [9] - 23:13, 24:22, 34:21, 37:1, 38:15, 43:2, 43:23, 60:17, 68:20
guidance [2] - 16:8, 18:25
Guidelines [1] - 16:2
guild [1] - 25:7

H

H(ii [1] - 63:15
half [1] - 12:17
half-built [1] - 12:17
hammer [1] - 45:7
hand [1] - 33:1
handle [2] - 33:6, 44:13
Hanson [23] - 3:6, 4:11, 6:13, 19:13, 26:7, 26:25, 27:14, 31:2, 33:4, 35:12, 39:24, 41:2, 44:24, 49:16, 50:22, 51:20, 52:1, 53:18, 58:25, 59:11, 61:24, 71:12, 73:3
HANSON [101] - 1:10, 3:1, 3:7, 3:15, 3:23, 4:2, 4:6, 4:13, 4:19, 4:25, 5:6, 5:9, 10:11, 10:23, 15:3, 19:10, 19:19, 20:10, 21:5, 22:16, 22:18, 23:16, 23:19, 23:23, 24:7, 25:18, 27:1, 27:9, 27:20, 28:6, 28:14, 28:17, 28:21, 28:24, 29:7, 32:17, 33:8, 33:14, 34:1, 34:13, 35:5, 35:10, 35:12, 35:25, 36:2, 36:11, 36:20, 37:8, 37:16, 39:2, 40:24, 41:11, 42:19, 43:12, 44:3, 44:21, 44:24, 45:25, 46:11, 46:21, 47:10, 48:16, 48:18, 49:19, 49:22, 49:25, 50:11, 50:19, 50:22, 51:6, 51:8, 51:10, 51:12, 51:18, 51:20, 52:3,

52:6, 54:4, 54:20, 55:2, 55:22, 56:1, 56:22, 57:15, 58:9, 59:4, 59:14, 59:20, 59:22, 61:12, 61:22, 61:24, 64:23, 65:4, 65:9, 65:13, 65:19, 66:15, 72:20, 72:25, 73:3
happy [3] - 29:21, 32:12, 66:5
hard [4] - 38:21, 50:1, 50:23, 72:14
health [9] - 8:19, 9:6, 10:1, 11:15, 12:2, 14:1, 17:25, 18:9, 19:4
hear [5] - 41:4, 46:8, 48:10, 69:23, 70:4
heard [7] - 3:18, 44:11, 47:5, 54:22, 67:23, 67:25, 72:6
hearing [18] - 13:22, 16:16, 29:16, 29:17, 29:23, 30:25, 35:7, 35:22, 50:16, 51:3, 51:16, 56:8, 61:20, 64:18, 64:19, 65:23, 72:12, 72:22
heart [1] - 50:3
heartbreaking [1] - 67:18
heartburn [1] - 38:10
heck [1] - 58:11
held [1] - 2:2
help [2] - 40:2, 58:10
helped [2] - 70:23, 71:1
hence [3] - 29:13, 29:19, 66:14
HEREBY [1] - 74:8
Hessler [2] - 4:17, 13:21
Hessler's [1] - 8:24
hi [1] - 23:23
highlight [2] - 15:18, 40:5
Highway [2] - 12:8, 12:9
highway [1] - 12:10
Hilary [8] - 23:21, 23:23, 24:23, 40:19, 41:18, 43:1, 43:19
holiday [1] - 60:8
home [1] - 73:6
hope [4] - 38:9, 44:11, 44:14, 50:24
hoped [1] - 28:5
hour [1] - 50:8
hours [3] - 8:21, 9:11, 10:6
Hueck [1] - 1:13
hug [1] - 69:3
hurt [2] - 44:5, 61:16

I

idea [2] - 18:14, 42:24
identified [2] - 17:9, 49:8
identify [1] - 5:11
II [20] - 1:18, 5:16, 5:21, 6:14, 12:21, 15:11, 16:1, 16:7, 16:17, 17:1, 21:6, 21:25, 26:12, 31:13, 31:20, 40:14, 42:12, 61:10, 63:16, 71:13
iii [1] - 63:15
III [1] - 63:16
impact [3] - 7:10, 12:18, 18:5
impacts [7] - 7:4, 7:9, 8:9, 25:3, 25:15, 41:24, 42:17
impair [8] - 8:19, 9:5, 10:1, 10:7, 11:15, 17:25, 18:9, 19:4
implement [1] - 10:3
imposing [1] - 18:7
impress [1] - 69:19
IN [2] - 1:4, 1:5
inappropriately [1] - 9:15
Inaudible [7] - 3:8, 7:2, 9:1, 10:5, 10:10, 19:18, 59:10
Inaudible) [2] - 28:13, 59:18
include [4] - 15:14, 21:3, 32:8, 32:10
included [8] - 31:1, 31:15, 32:1, 49:3, 57:25, 58:23, 59:10, 61:7
includes [1] - 58:20
including [3] - 6:18, 8:10, 31:3
incorporated [1] - 11:20
indentation [1] - 60:3
independently [2] - 38:13, 42:22
indicate [1] - 19:25
indicated [3] - 19:18, 20:5, 31:23
indicating [1] - 6:5
indication [1] - 18:7
individual [2] - 49:11, 49:14
individuals [1] - 32:13
influence [1] - 70:23
information [5] - 27:13, 29:25, 30:2, 40:15, 69:23
infrasound [1] - 13:11
inhabitants [11] - 7:18, 8:20, 9:6, 10:1, 11:15, 13:1, 17:24, 17:25, 18:9, 18:11, 19:5
injury [5] - 7:17, 7:22, 11:14, 17:22, 19:3
input [1] - 22:21
inserting [1] - 29:22
instance [1] - 68:9
instances [2] - 11:17, 62:18
instead [8] - 17:18, 18:5, 18:18, 43:17, 59:6, 60:15, 63:1, 63:17
insure [2] - 58:16, 58:17
insured [1] - 12:25
intend [1] - 30:18
intended [2] - 59:2, 69:2
intent [1] - 23:11
intention [1] - 54:25
interactions [1] - 42:5
interest [2] - 14:25, 42:3
interested [1] - 72:7
interfere [3] - 10:15, 18:1, 19:5
interference [2] - 18:19, 18:20
interfering [1] - 17:12
interject [1] - 59:12
interstate [2] - 12:10, 14:16
Intervenor [2] - 5:5, 31:10
Intervenors [21] - 4:21, 5:2, 6:2, 6:4, 6:8, 6:23, 7:6, 9:9, 9:12, 9:20, 11:2, 11:7, 17:9, 31:9, 49:5, 50:3, 50:10, 70:10, 70:20, 71:3, 72:6
Intervenors' [1] - 6:21
intervention [1] - 14:9
involved [2] - 26:20, 47:14
iPads [1] - 33:19
ironclad [1] - 46:6
issue [3] - 14:8, 31:18, 56:9
issued [2] - 12:21, 17:18
issues [5] - 56:10, 56:15, 66:21, 66:22, 68:8
item [8] - 3:17, 36:21, 37:21, 59:5, 62:1, 63:15, 64:5, 64:8
itemized [1] - 29:22
items [7] - 28:10, 29:17, 36:10, 36:14, 63:2, 64:4, 65:6
IV [1] - 63:16

J

jeopardized [1] - 12:6
job [4] - 29:14, 38:6, 70:21, 72:5
jobs [1] - 8:11
joined [2] - 6:7, 11:1
Jon [2] - 1:14, 15:6
Joy [1] - 26:19
jump [2] - 20:24, 23:10
juncture [4] - 21:11, 28:10, 37:2, 47:25
jurisdiction [3] - 17:16, 47:6

K

Kaitlyn [1] - 1:16
Karen [9] - 27:2, 38:7, 45:22, 46:20, 52:20, 52:21, 54:10, 54:13, 59:12
karen [1] - 1:13
Kearney [5] - 1:15, 4:18, 15:6, 20:24, 23:9
keep [3] - 32:8, 43:15, 47:12
kept [1] - 41:7
key [1] - 14:23
killed [2] - 43:4, 70:25
Kim [2] - 39:25, 40:3
kind [2] - 27:8, 54:16
knock [2] - 60:9
known [1] - 61:15
Kristen [2] - 1:22, 15:6
Kristi [1] - 1:21
KRISTIE [1] - 1:11

L

Land [1] - 16:2
land [1] - 24:9
Land-Based [1] - 16:2
landowner [1] - 19:25
landowners [3] - 22:5, 29:25, 34:11
landscapes [1] - 25:4
language [6] - 12:13, 30:5, 30:24, 32:5, 46:17, 54:17
large [1] - 57:21
largest [1] - 13:13
Lashley [1] - 26:19
last [6] - 25:8, 41:24, 47:2, 50:8, 52:19, 69:6
Law [1] - 11:21
law [14] - 9:14, 12:3, 14:21, 17:20, 29:12, 53:1, 65:24, 66:11, 67:7, 67:13, 69:12, 71:16, 71:17
lawful [1] - 69:18
Lawrence [1] - 13:14
laws [9] - 6:18, 7:15, 11:12, 17:21, 56:12, 67:1, 69:15, 69:20, 71:17
lay [2] - 67:23, 68:1
leads [1] - 14:1
lease [1] - 8:11
least [1] - 14:4
leave [3] - 38:4, 38:5, 48:3
LEC [1] - 39:19
legal [4] - 9:13, 9:21, 48:20
legislate [1] - 69:8
legislator [1] - 67:3
legislators [1] - 69:19
legislature [6] - 48:23, 67:4, 69:10, 69:11, 69:13
legitimate [1] - 68:20
lengthy [3] - 71:13, 71:14, 71:15
letter [5] - 6:5, 16:10, 68:19, 68:21
level [1] - 8:21
levels [2] - 22:6, 34:12
liaison [4] - 22:4, 32:9, 34:9, 34:10
life [2] - 8:1, 24:8
light [5] - 18:14, 18:15, 23:3, 44:15, 68:6
lighting [1] - 12:15
limit [3] - 9:9, 13:23, 13:24
limited [1] - 17:15
limiting [1] - 69:3
limits [2] - 18:8, 69:3
line [16] - 3:19, 3:20, 3:24, 4:7, 4:8, 4:15,

4:16, 4:22, 10:25, 23:20, 35:16, 38:12, 48:25, 57:7, 62:21, 62:23
lines [2] - 18:15, 62:7
list [3] - 28:3, 35:15, 59:8
literature [1] - 40:8
LLC [5] - 1:4, 5:16, 5:21, 20:18, 26:12
LNTE [3] - 31:11, 31:19, 36:19
load [1] - 11:4
local [3] - 14:16, 17:1, 58:5
location [3] - 8:16, 19:24, 42:17
longspurs [1] - 25:7
look [20] - 17:8, 19:23, 32:10, 33:23, 37:3, 40:9, 41:23, 42:4, 42:17, 43:6, 49:17, 50:8, 50:11, 54:8, 57:18, 60:2, 71:16, 71:19, 71:23, 72:2
looked [4] - 30:21, 34:20, 38:23, 59:4
looking [7] - 31:5, 37:17, 45:23, 45:25, 57:19, 69:14
looks [2] - 35:6, 53:24
lose [1] - 47:18
loss [3] - 12:20, 13:17, 70:25
losses [1] - 13:15
love [2] - 45:6, 46:8
low [1] - 13:11

M

machinery [1] - 57:21
mail [1] - 26:19
mailed [1] - 27:25
mailing [2] - 28:2, 52:20
main [19] - 24:25, 25:2, 25:9, 36:3, 36:9, 36:25, 45:5, 51:5, 51:22, 52:1, 53:12, 57:4, 64:18, 64:19, 64:22, 65:14, 65:20, 72:21, 72:22
Main [1] - 1:24
maintain [1] - 8:16
maintenance [3] - 10:5, 57:24, 58:1
major [1] - 12:10
manner [1] - 49:14
March [6] - 1:8, 2:5, 3:16, 8:2, 20:6, 74:11
marked [1] - 16:10
MaRous [1] - 31:23
match [1] - 39:7
material [1] - 63:7
MATTER [1] - 1:4
matter [6] - 2:2, 5:15, 33:12, 47:8, 68:4, 74:10
MCCOMSEY [1] - 74:5
McComsey [3] - 1:24, 74:17, 74:18
means [3] - 28:8, 67:18, 68:21
medical [1] - 9:3
meet [7] - 7:13, 10:2, 11:7, 13:22, 14:21, 14:22, 40:17
meeting [3] - 3:15, 52:19, 58:13
meetings [1] - 25:1
meets [1] - 17:19
meld [1] - 70:23
mention [1] - 17:3
mentioned [6] - 15:17, 16:13, 18:3, 27:5, 41:22, 42:8
met [12] - 6:16, 7:14, 10:19, 11:16, 13:20, 15:11, 19:17, 20:7, 29:12, 45:12, 45:19, 46:14
Meyer [1] - 24:23
mic [1] - 33:2
mics [1] - 3:12
might [2] - 26:15, 58:18
miles [1] - 46:23
Miles [7] - 1:18, 4:4, 6:14, 19:14, 27:15, 28:13, 46:16
millions [1] - 70:11
minimal [3] - 18:6, 18:10, 25:15
minimized [1] - 8:20
minor [6] - 36:22, 37:18, 58:19, 59:2, 59:9, 63:4
minute [1] - 3:6
minutes [12] - 5:24, 5:25, 6:10, 9:11, 19:11, 27:21, 28:7, 28:11, 33:21, 34:2, 49:17, 49:21
misinterpreting [1] - 43:12
misspoke [1] - 6:3
misunderstanding [1] - 63:12
mitigation [2] - 63:24, 64:1
modeling [1] - 31:14
modifications [1] - 55:19
Mogen [3] - 1:21, 4:20, 5:6
MOGEN [1] - 5:8
moment [1] - 38:3
Monday [1] - 60:8
monitor [1] - 43:4
monitoring [10] - 8:7, 15:22, 15:24, 16:5, 41:21, 42:8, 42:9, 43:3, 43:8, 43:25
moon [2] - 69:24, 70:2
moot [1] - 31:18
MOREY [6] - 23:21, 24:5, 24:22, 41:18, 43:1, 43:19
Morey [10] - 4:17, 16:15, 23:21, 23:24, 24:23, 25:19, 41:12, 41:18, 43:1, 43:19
morning [3] - 52:20, 52:22, 54:15
mortality [10] - 8:7, 15:22, 15:24, 16:4, 40:9, 41:21, 43:3, 43:8, 43:25, 44:6
most [1] - 27:2
Motion [19] - 57:1, 57:5, 58:19, 58:23, 60:16, 60:18, 60:23, 61:13, 61:19, 61:24, 62:1, 62:2, 63:6, 65:22, 66:14, 70:14, 72:19, 72:21, 73:3
motion [60] - 23:18, 26:2, 26:3, 26:16, 29:13, 32:19, 33:1, 34:5, 34:14, 34:16, 35:6, 35:7, 35:12, 35:21, 35:22, 36:2, 36:4, 36:5, 36:9, 36:10, 36:12, 36:25, 37:21, 38:15, 38:20, 39:11, 44:10, 44:17, 44:25, 45:2, 45:4, 45:5, 47:11, 48:7, 50:12, 50:14, 50:24, 51:1, 51:2, 51:5, 51:6, 51:14, 51:20, 51:22, 51:24, 52:1, 52:6, 52:8, 53:12, 54:2, 60:20, 64:18, 64:19, 64:22, 65:15, 65:20, 72:21, 72:22
motions [6] - 35:14, 37:1, 52:3, 53:6, 57:4, 64:16
move [6] - 26:10, 26:15, 34:7, 38:10, 61:6
moved [1] - 14:7
MR [15] - 3:5, 4:4, 4:9, 4:11, 6:13, 10:13, 19:13, 19:21, 22:9, 22:13, 27:14, 28:12, 28:16, 39:24, 46:16
MS [32] - 4:16, 4:23, 5:3, 5:8, 11:5, 15:8, 20:22, 22:17, 22:20, 22:24, 23:8, 23:21, 24:5, 24:22, 28:20, 28:23, 40:4, 41:18, 43:1, 43:19, 45:22, 46:9, 46:20, 46:22, 49:1, 54:13, 56:13, 57:14, 57:16, 59:15, 59:21, 61:3
multiple [1] - 57:22
Murphy [4] - 1:18, 4:13, 22:10, 27:18
MURPHY [4] - 4:11, 22:9, 22:13, 39:24
must [2] - 11:13, 67:12
mute [3] - 3:11, 3:13, 33:24

N

NARUC [1] - 9:17
Natural [1] - 25:12
nature [3] - 44:7, 67:22, 71:6
nearly [1] - 14:22
necessarily [1] - 43:8
necessary [4] - 11:22, 21:4, 49:15, 66:2
need [18] - 3:1, 3:8, 4:7, 4:12, 22:20, 24:21, 26:22, 29:15, 31:15, 36:24, 37:13, 40:17, 41:12, 50:4, 58:23, 63:5, 64:12, 68:7
needed [7] - 8:15, 31:25, 38:24, 50:7, 54:7, 55:1, 59:9
needing [1] - 61:6
needs [9] - 3:2, 24:17, 32:5, 55:5, 62:8, 63:13, 64:8, 65:7
negotiated [1] - 24:19
negotiation [2] - 37:25, 41:14
negotiations [2] - 39:17, 72:16
neighboring [1] - 19:25
NELSON [29] - 1:11, 3:25, 21:17, 23:17, 26:7, 27:6, 27:23, 29:1, 29:10, 33:4, 35:9, 35:24, 36:7, 37:12, 38:21, 44:19, 48:9, 50:18, 51:17, 53:15, 53:23, 54:22, 55:13, 58:25, 60:24, 61:11, 61:21, 65:21, 72:24
Nelson [29] - 3:23, 21:15, 23:16, 26:3, 26:6, 26:16, 28:25, 34:7, 34:25, 35:8, 35:23, 36:4, 36:5, 37:7, 38:9, 44:18, 48:10, 48:21, 48:25, 50:17, 51:16, 53:15, 54:20, 59:1, 60:25, 61:3, 61:20, 65:20, 72:23
nesting [2] - 25:6, 25:7
never [3] - 9:16, 38:1, 61:15
nevertheless [2] - 17:8, 44:11
new [7] - 7:3, 16:21, 36:18, 40:15, 42:16, 56:11, 56:16
news [1] - 42:19
next [1] - 59:24
nice [1] - 3:6
night [1] - 52:19
noise [9] - 13:11, 13:23, 13:24, 14:11, 17:11, 18:7, 18:14, 22:6, 34:12
none [6] - 35:22, 50:16, 51:3, 51:16, 61:20, 64:18
nonparticipant [2] - 9:10, 13:24
nonparticipant's [1] - 8:22
nonparticipants [6] - 7:5, 13:23, 14:3, 17:12, 68:25, 69:4
nonparticipating [3] - 14:5, 22:5, 34:11
Notary [2] - 74:7, 74:18
noted [1] - 8:14
nothing [3] - 19:8, 31:7, 72:1
notice [1] - 64:11
notions [1] - 9:13
number [9] - 23:25,

25:1, 27:22, 28:9, 32:20, 43:23, 64:11, 66:16, 70:22
numeral [1] - 63:15

O

o'clock [1] - 52:20
objected [2] - 9:18, 56:11
objection [1] - 20:1
objectives [1] - 42:3
obligations [2] - 53:7, 63:9
obliged [1] - 67:14
obtain [1] - 63:25
obtained [1] - 63:24
obviously [6] - 24:8, 32:22, 61:14, 66:6, 68:10, 70:14
OF [6] - 1:2, 1:4, 1:5, 74:1, 74:3
offered [1] - 40:15
officer [4] - 22:4, 34:9, 34:10, 37:10
often [1] - 26:8
old [2] - 7:5, 67:3
older [1] - 7:1
omnibus [1] - 32:15
once [4] - 36:25, 37:19, 42:1, 60:4
one [38] - 5:1, 5:24, 8:15, 10:24, 13:15, 15:23, 20:11, 20:13, 20:16, 23:13, 27:3, 27:7, 27:8, 37:24, 38:2, 38:11, 38:18, 38:24, 39:6, 41:7, 42:7, 43:18, 43:23, 44:13, 44:17, 45:2, 46:8, 46:18, 49:10, 49:18, 50:1, 52:6, 52:7, 59:6, 62:6, 67:22, 72:15
one-year [2] - 38:2, 38:18
ones [1] - 46:1
Onida [2] - 1:24, 74:13
open [4] - 3:12, 21:3, 48:11, 58:13
opening [1] - 20:5
operating [1] - 43:5
operation [9] - 10:4, 10:5, 23:4, 23:6, 30:14, 30:16, 30:19, 31:12, 32:1
operational [1] - 30:15
opinion [1] - 48:21
opportunity [4] - 40:5, 42:11, 47:19, 61:18
oppose [3] - 38:22, 41:3, 41:9
opposed [3] - 20:20, 32:15, 61:7
option [2] - 8:15, 8:17
options [1] - 17:8
Order [1] - 30:1
order [4] - 3:17, 31:6, 31:14, 39:6
ordering [1] - 14:6
orderly [3] - 10:15, 18:2, 19:6
ordinance [3] - 7:1, 7:3, 7:5
ordinances [3] - 6:23, 7:13, 71:17
ordinarily [1] - 73:5
organisms [1] - 25:14
origin [1] - 27:8
original [1] - 15:21
ORIGINAL [1] - 1:6
originally [2] - 41:16, 41:19
otherwise [2] - 48:24, 68:7
ouch [1] - 44:25
outgunned [1] - 70:10
outlined [3] - 15:15, 16:22, 30:22
outside [2] - 25:17, 69:17
overview [1] - 69:16
own [4] - 14:2, 32:18, 36:5, 64:6
owner [11] - 31:23, 45:8, 46:15, 52:13, 52:17, 53:10, 55:8, 56:16, 62:24, 63:1, 64:9
owners [5] - 52:14, 53:3, 53:8, 54:9, 56:11

P

p.m [1] - 14:11
pace [1] - 5:13
page [7] - 57:6, 60:2, 62:6, 62:11, 62:16, 62:18, 62:19
pages [1] - 71:5
palatable [1] - 14:13
paper [2] - 9:17, 33:15
papers [1] - 37:20
paragraph [23] - 30:3, 30:7, 30:8, 30:20, 30:21, 32:9, 36:18, 37:7, 37:22, 38:11, 45:6, 45:17, 46:3, 47:9, 47:23, 48:3, 48:15, 50:13, 52:15, 52:24, 62:19
paragraphs [1] - 53:9
Parks [15] - 16:8, 20:20, 21:3, 21:4, 21:10, 23:20, 23:22, 24:2, 24:24, 35:17, 38:23, 41:19, 42:4, 43:2, 43:20
part [6] - 9:18, 27:2, 41:4, 55:5, 64:2, 68:8
participant's [1] - 8:23
parties [9] - 3:2, 4:7, 5:24, 28:18, 34:18, 34:19, 70:9, 72:7, 72:14
passed [2] - 58:19, 67:2
past [1] - 12:20
Paulson [2] - 1:15, 15:6
Pause [1] - 49:23
pause [1] - 26:19
payment [1] - 8:10
payments [1] - 8:11
peak [1] - 12:12
people [11] - 3:8, 5:14, 14:9, 29:20, 34:3, 35:3, 41:13, 47:14, 49:20, 58:11, 66:2
per [1] - 9:11
percent [1] - 43:9
perhaps [3] - 45:4, 54:10, 58:10
period [1] - 57:7
permanent [1] - 8:12
permissible [1] - 18:19
permission [4] - 22:5, 30:14, 34:11, 55:12
PERMIT [1] - 1:5
Permit [1] - 17:18
permit [34] - 5:16, 5:19, 10:21, 11:8, 15:12, 15:14, 17:10, 17:17, 18:23, 19:1, 20:8, 26:11, 29:13, 30:1, 30:13, 45:7, 45:9, 45:19, 46:4, 46:13, 52:16, 53:9, 54:1, 54:9, 55:6, 55:7, 55:16, 56:11, 65:25, 66:14, 67:15, 71:14, 71:18, 71:22
permits [3] - 7:20, 10:17, 45:15
permitted [1] - 13:16
person [1] - 55:18
person's [1] - 59:24
personal [1] - 17:13
persons [1] - 27:10
perspective [1] - 31:17
pertaining [2] - 20:14, 23:25
Ph.D [1] - 9:3
phone [2] - 4:12, 27:11
phones [2] - 3:11, 33:19
phrase [3] - 36:22, 54:10, 59:2
piece [1] - 71:1
Pierre [1] - 2:4
place [9] - 3:11, 3:12, 24:17, 31:19, 37:25, 41:14, 62:25, 64:12, 66:9
placed [1] - 62:14
placement [1] - 12:7
plain [4] - 12:13, 35:18, 45:10
plan [6] - 5:13, 13:6, 20:3, 40:20, 63:24, 64:1
plant [7] - 12:1, 12:7, 12:9, 17:5, 17:7, 19:17, 19:22
pocket [1] - 44:13
point [14] - 3:3, 7:6, 26:18, 31:2, 32:21, 37:1, 37:16, 43:17, 52:4, 55:14, 61:9, 61:10, 62:3, 63:11
points [1] - 68:23
population [1] - 17:2
populations [1] - 42:18
portion [2] - 33:5, 48:2
pose [5] - 7:17, 7:22, 11:13, 17:22, 19:3
poses [1] - 12:1
position [4] - 33:23, 39:8, 41:15, 70:16
positions [1] - 9:20
possession [4] - 52:17, 53:10, 55:9, 55:11
possible [1] - 50:7
postconstruction [14] - 8:6, 15:22, 15:24, 16:4, 16:25, 38:2, 38:14, 41:21, 42:8, 42:9, 42:23, 43:3, 43:8, 43:25
posted [2] - 27:17, 29:2
posthearing [2] - 11:19, 13:18
posting [1] - 28:3
potential [3] - 7:8, 16:25, 49:7
potentially [1] - 49:13
practical [1] - 31:17
practices [1] - 10:4
prairie [2] - 17:1, 25:6
pre [1] - 16:24
Precision [1] - 1:24
preconstruction [1] - 13:10
predator [1] - 43:22
predictions [1] - 15:25
preparation [1] - 52:19
prepared [1] - 41:20
present [3] - 3:22, 47:14, 56:2
presentation [1] - 6:12
presented [7] - 9:3, 9:24, 11:21, 30:5, 38:5, 65:24, 68:16
pressing [1] - 61:15
pretty [1] - 43:2
previous [2] - 25:1, 61:5
primary [1] - 25:5
print [1] - 33:14
printer [1] - 33:18
priority [1] - 43:23
pro [2] - 1:20, 1:21
problem [3] - 33:7, 58:2, 60:25
problems [1] - 47:4
proceed [5] - 5:22, 26:23, 28:25, 29:9, 37:8
proceeding [4] - 6:15, 6:22, 9:17, 9:23
Proceedings [1] - 1:7
proceedings [3] - 2:2, 74:9, 74:12
process [11] - 20:13, 28:2, 29:4, 29:9, 39:3, 62:14, 66:16, 67:8, 71:9, 71:14, 71:15
produce [2] - 8:10, 18:6
Professional [2] - 74:6, 74:19
proffered [1] - 9:16
profit [1] - 12:19
profound [1] - 69:4
prohibit [1] - 18:23
project [51] - 6:17, 6:22, 6:25, 7:16, 7:22, 8:1, 8:2, 8:9, 8:18, 9:5, 9:25, 10:5,

10:7, 10:10, 10:15, 10:17, 11:11, 11:13, 11:14, 12:4, 12:11, 12:16, 12:17, 13:3, 13:4, 13:15, 13:16, 13:23, 14:12, 16:24, 17:1, 18:4, 18:5, 18:10, 18:12, 18:24, 19:2, 20:18, 21:7, 24:4, 24:14, 31:23, 35:19, 43:5, 43:6, 43:10, 44:1, 45:11, 62:24, 63:1, 64:9
projects [4] - 25:3, 25:15, 41:24, 42:5
promised [1] - 41:15
proof [6] - 6:16, 7:14, 10:20, 11:8, 12:5, 15:11
proper [3] - 34:25, 70:9, 70:15
properties [8] - 13:14, 14:5, 14:7, 22:6, 34:12, 66:25, 68:2, 68:25
property [13] - 8:11, 13:13, 17:12, 17:13, 17:16, 18:15, 18:21, 53:8, 66:3, 66:7, 68:3, 71:25
proposal [4] - 15:16, 15:21, 29:19, 49:3
proposed [12] - 10:9, 10:14, 11:11, 12:7, 13:3, 15:13, 16:21, 19:2, 20:4, 24:4, 26:17, 50:15
proposes [1] - 15:23
proposing [2] - 30:20, 40:6
prospectively [1] - 52:14
protect [5] - 11:10, 14:15, 57:19, 66:2, 67:12
protected [1] - 13:1
protection [2] - 14:6, 14:10
protects [1] - 57:20
prove [1] - 13:7
proven [1] - 12:24
proves [1] - 67:13
provide [7] - 11:22, 12:3, 13:8, 14:4, 18:16, 20:23, 39:25
provided [4] - 13:2, 13:4, 54:18, 67:16
provides [1] - 45:7
providing [1] - 29:24
provision [1] - 32:3
proximity [2] - 17:5, 68:3
Public [10] - 3:16, 55:17, 56:6, 69:17, 70:17, 71:15, 71:20, 72:4, 74:7, 74:18
PUBLIC [2] - 1:1, 1:10
public [7] - 12:2, 12:6, 14:14, 22:4, 32:9, 34:9, 34:10
public's [1] - 27:25
PUC [10] - 17:15, 17:16, 17:18, 45:9, 45:11, 45:15, 45:18, 46:14, 49:9, 53:25
PUC's [1] - 18:4
pull [2] - 32:14, 33:5
purpose [1] - 53:2
pursuant [7] - 5:21, 26:12, 52:17, 53:11, 54:7, 55:11, 55:20
put [7] - 23:7, 26:20, 31:21, 34:6, 57:17, 59:18, 66:1
putting [3] - 29:14, 38:6, 48:14

Q

quality [12] - 12:2, 12:4, 13:11, 24:1, 24:5, 24:6, 24:8, 25:10, 25:20
questions [14] - 19:7, 20:11, 21:12, 21:14, 21:21, 23:2, 23:13, 23:17, 23:25, 29:21, 32:12, 34:4, 53:14, 71:24
quick [1] - 54:14
quite [1] - 71:15
quote [2] - 13:25, 14:2
quoted [1] - 9:17

R

railroad [1] - 18:20
raptor [6] - 16:6, 42:12, 42:18, 43:5, 43:6, 43:16
rather [3] - 14:20, 52:19, 69:3
rationale [3] - 16:9, 40:6, 58:6
read [9] - 5:13, 20:19, 41:6, 41:8, 46:17, 55:3, 55:14, 58:17, 68:22
reading [1] - 55:22
reads [1] - 38:12
ready [5] - 23:18, 31:20, 52:2, 65:12
real [5] - 18:17, 38:6, 38:17, 38:19, 67:23
realize [1] - 66:23
reallocated [1] - 16:5
really [11] - 25:12, 42:11, 47:23, 57:20, 63:4, 65:7, 68:17, 69:10, 70:20, 72:5
realm [1] - 25:11
Realtime [2] - 74:6, 74:19
reason [5] - 14:15, 30:23, 41:17, 60:8, 61:1
reasonable [1] - 31:13
reasons [1] - 40:21
rebuttal [2] - 5:25, 19:12
receive [3] - 14:5, 29:13, 30:13
received [7] - 27:12, 27:16, 28:16, 28:19, 28:23, 60:4
recent [1] - 12:8
receptors [1] - 7:6
recess [2] - 3:14, 33:25
recognize [4] - 21:7, 25:19, 65:10, 69:8
recognized [2] - 18:17, 18:18
recommendation [1] - 15:10
recommended [1] - 18:8
recommends [2] - 15:19, 16:13
record [14] - 6:15, 6:21, 8:18, 9:19, 10:9, 10:14, 18:7, 19:16, 46:5, 62:3, 71:20, 71:21, 72:1, 72:3
redoing [1] - 64:10
reduce [2] - 9:1, 13:24
redundant [1] - 47:25
refer [1] - 52:9
referenced [2] - 11:19, 46:18
references [1] - 46:24
refers [2] - 57:7, 63:18
regard [5] - 8:2, 19:17, 19:22, 20:2, 49:11
regarding [3] - 16:16, 17:4, 61:10
regards [2] - 25:10, 58:14
region [3] - 10:16, 18:2, 19:6
Registered [2] - 74:5, 74:19
regular [1] - 57:21
regulation [2] - 7:12, 13:5
regulations [2] - 12:5, 69:15
regulatory [1] - 69:3
regurgitate [1] - 67:19
Reiss [12] - 1:22, 15:7, 15:8, 19:11, 20:14, 22:19, 23:8, 30:6, 32:4, 49:1, 56:13, 61:4
REISS [13] - 4:16, 15:8, 20:22, 22:17, 22:20, 22:24, 23:8, 28:23, 49:1, 56:13, 57:14, 57:16, 61:3
related [1] - 14:23
relation [1] - 24:5
relationship [1] - 24:7
relevant [1] - 9:4
reliable [1] - 11:18
relied [1] - 9:22
relief [1] - 64:14
relieves [1] - 41:5
remaining [1] - 27:18
remember [4] - 3:12, 22:1, 49:4, 61:4
reminder [1] - 5:10
remotely [1] - 28:4
remove [3] - 46:4, 49:12, 57:23
removed [3] - 55:5, 62:9, 62:13
render [1] - 18:21
renewed [1] - 8:17
repaired [1] - 57:9
repeat [1] - 42:16
rephrase [1] - 24:12
replace [1] - 37:22
replacement [1] - 30:8
replete [1] - 9:13
replication [1] - 29:3
reported [1] - 13:15
Reported [1] - 1:24
Reporter [4] - 74:6, 74:19, 74:19
reporter [1] - 74:9
Reporting [1] - 1:24
representatives [1] - 27:19
represented [1] - 5:3
representing [3] - 4:14, 4:21, 5:2
request [2] - 8:8, 60:7
requests [1] - 10:20
require [4] - 15:23, 16:17, 16:20, 31:10
required [11] - 6:19, 7:11, 10:3, 11:23, 12:3, 12:23, 15:21, 21:9, 23:4, 30:12, 49:10
requirement [3] - 30:17, 31:14, 31:16
requirements [4] - 11:8, 67:10, 67:11, 67:14
requires [1] - 54:3
requiring [1] - 30:11
reread [1] - 34:24
rereading [1] - 52:18
research [2] - 42:14, 42:16
residence [2] - 8:22, 8:23
residents [3] - 12:18, 14:13, 14:17
Resources [1] - 25:12
resources [2] - 7:23, 25:16
respect [1] - 69:13
respectfully [1] - 10:20
respective [1] - 14:7
respects [1] - 70:10
responsibility [1] - 69:21
rest [2] - 4:10, 18:13
restriction [1] - 14:11
rests [1] - 11:8
result [1] - 18:24
review [2] - 11:19, 11:23
reviewing [1] - 33:10
reviews [1] - 17:18
revised [2] - 15:20, 15:23
revision [1] - 16:7
revisit [1] - 69:15
revoke [4] - 45:15, 45:18, 47:7, 49:9
revoked [3] - 45:9, 45:11, 46:13
RIDGE [1] - 1:4
Ridge [50] - 1:18, 4:3, 5:16, 5:20, 5:25, 6:1, 6:3, 6:9, 6:11, 6:14, 12:21, 15:11, 15:25, 16:6, 16:17, 16:23, 17:1, 19:11, 20:18, 20:21, 20:25, 21:6, 21:8, 21:25, 22:8, 22:10, 26:12, 27:19, 31:11, 31:13, 31:20, 35:18, 39:16, 39:20,

39:23, 40:7, 40:13, 40:14, 42:2, 42:10, 42:12, 45:23, 46:2, 46:10, 50:5, 61:9, 71:13
Ridge's [1] - 6:24
rights [4] - 17:13, 17:17, 66:7, 71:25
risks [1] - 15:25
Rislov [1] - 1:14
road [2] - 18:19, 58:4
roads [5] - 14:18, 20:2, 25:17, 57:19, 57:21
roadway [1] - 14:14
Robish [2] - 4:20, 4:24
role [1] - 18:4
Roman [1] - 63:15
route [1] - 12:10
RPR [1] - 1:24
rules [7] - 6:18, 7:15, 11:12, 11:23, 12:23, 17:21, 55:20
running [1] - 47:4

S

S7 [10] - 15:15, 24:17, 26:14, 29:8, 29:14, 29:18, 31:5, 51:8, 52:9, 64:2
safe [2] - 31:25, 73:6
safety [12] - 8:19, 10:1, 10:3, 10:4, 10:8, 11:15, 12:2, 12:6, 14:15, 17:25, 18:9, 19:4
scenes [1] - 56:9
scheduled [1] - 12:11
SCHUMACHER [11] - 3:5, 4:4, 4:9, 6:13, 10:13, 19:13, 19:21, 27:14, 28:12, 28:16, 46:16
Schumacher [9] - 1:18, 4:4, 6:14, 19:14, 27:9, 27:15, 28:13, 46:11, 46:16
Schumacher's [1] - 11:24
scientific [1] - 40:8
SDCL [3] - 5:21, 12:13, 26:13
se [2] - 1:20, 1:21
season [1] - 12:12
second [9] - 16:4, 16:12, 20:16, 30:23, 40:14, 43:25, 57:7, 62:18, 62:23
secondly [1] - 30:12
section [2] - 34:8, 34:9
see [15] - 21:9, 24:21, 27:4, 27:10, 27:17, 35:18, 36:24, 37:9, 37:17, 38:18, 46:17, 56:7, 56:8, 58:8, 66:10
seem [3] - 58:18, 60:12, 60:13
self [1] - 27:24
self-explanatory [1] - 27:24
semantics [2] - 45:14, 57:8
send [3] - 26:21, 33:16, 33:17
sense [2] - 59:23, 64:25
sent [2] - 6:5, 27:2
sentence [5] - 19:20, 47:2, 58:16, 63:19, 63:22
sentences [2] - 46:23, 47:1
separately [1] - 32:15
series [1] - 26:16
serious [6] - 7:17, 7:22, 11:14, 12:1, 17:22, 19:3
seriously [2] - 12:17, 69:14
Service [1] - 16:2
set [1] - 16:3
setback [3] - 14:14, 69:12, 69:15
setbacks [4] - 6:19, 10:3, 68:9, 69:9
settlement [3] - 39:17, 39:22, 41:4
seven [1] - 10:6
several [3] - 20:12, 29:17, 71:24
shadow [6] - 6:25, 8:21, 9:10, 14:3, 17:11, 18:8
shall [18] - 5:18, 5:21, 13:1, 16:23, 20:17, 20:20, 35:17, 52:10, 52:16, 55:7, 55:20, 59:6, 59:13, 59:16, 60:4, 63:24
shall...all [1] - 59:17
sheet [1] - 12:20
short [7] - 3:14, 33:25, 38:3, 38:16, 40:21, 41:12, 55:14
shorthand [2] - 74:9
shoulders [1] - 53:8
show [3] - 3:9, 7:2, 7:3
showing [2] - 7:13, 9:25
shown [1] - 10:2
shows [8] - 6:15, 6:22, 6:25, 7:16, 8:18, 10:7, 18:7, 45:5
shut [2] - 31:24, 55:15
side [1] - 32:24
significant [4] - 41:14, 43:18, 44:6, 62:17
similarly [2] - 9:12, 62:5
simply [4] - 14:20, 43:14, 43:17, 55:6
site [2] - 12:8, 25:16
sites [1] - 9:1
situation [1] - 64:8
six [1] - 62:7
sleep [1] - 13:25
slight [1] - 15:16
slow [2] - 5:13, 10:11
small [2] - 14:7, 58:18
smidgen [1] - 10:11
smoothly [1] - 28:5
social [2] - 7:18, 17:23
soft [1] - 50:21
softens [1] - 50:3
soils [2] - 58:17, 59:17
solely [1] - 11:9
solid [1] - 13:6
someone [3] - 57:2, 64:3, 65:15
sometime [1] - 64:21
somewhere [2] - 46:12, 47:16
soon [1] - 27:6
sorry [1] - 57:15
sort [2] - 38:17, 59:7
sound [16] - 6:24, 7:2, 8:21, 9:2, 9:10, 11:18, 11:21, 11:25, 13:10, 19:15, 22:1, 22:2, 31:14, 56:2, 68:6, 68:13
sounding [1] - 4:1
South [18] - 1:24, 2:3, 2:4, 3:16, 8:13, 11:11, 11:23, 12:23, 14:25, 16:8, 24:23, 25:11, 40:12, 41:19, 42:15, 43:20, 74:7, 74:13
SOUTH [2] - 1:2, 74:1
southeastern [1] - 42:15
spacial [1] - 41:23
speaking [3] - 5:5, 5:8, 5:11
species [2] - 25:7, 42:4
specific [3] - 21:2, 42:4, 46:17
specifically [2] - 17:20, 25:16
specify [1] - 47:17
speech [1] - 11:24
spell [2] - 30:23, 31:21
spend [1] - 70:11
spoken [2] - 60:17, 60:22
spray [3] - 31:24, 31:25, 35:2
sprayers [2] - 35:2
SS [1] - 74:2
STAFF [1] - 1:12
Staff [72] - 1:23, 4:14, 6:2, 6:9, 8:5, 13:14, 13:21, 15:5, 15:9, 15:10, 15:13, 15:19, 15:22, 16:7, 16:12, 16:13, 16:15, 16:21, 17:3, 17:7, 17:13, 18:8, 19:7, 19:18, 19:23, 21:2, 21:22, 21:25, 22:7, 23:1, 23:9, 26:14, 28:2, 28:18, 28:22, 28:23, 29:2, 29:8, 29:13, 30:3, 30:5, 31:1, 32:4, 37:25, 38:23, 45:23, 48:20, 49:2, 49:5, 49:8, 50:2, 56:5, 56:10, 56:14, 57:6, 57:17, 60:4, 60:10, 61:1, 61:4, 61:8, 61:15, 61:18, 62:9, 64:3, 67:10, 70:18, 71:3, 71:21, 72:4
Staff's [10] - 15:15, 15:17, 16:9, 20:15, 22:23, 23:10, 24:17, 26:4, 50:4, 72:16
stand [1] - 19:15
standard [1] - 17:19
standards [2] - 12:4, 13:5
standpoint [7] - 25:24, 42:21, 47:20, 54:8, 66:24, 67:7, 69:14
Stanton [1] - 9:17
start [9] - 3:10, 3:13, 20:14, 20:16, 23:6, 27:21, 28:7, 28:10, 66:19
started [2] - 42:1, 42:2
starting [1] - 23:4
state [18] - 7:11, 12:3, 14:18, 14:21, 17:20, 20:18, 29:12, 37:10, 40:20, 42:18, 48:23, 10
54:15, 55:6, 57:10, 63:9, 63:14, 65:2, 71:17
State [2] - 2:3, 74:7
STATE [2] - 1:2, 74:1
statement [3] - 12:20, 64:22, 69:5
statements [1] - 65:2
States [1] - 25:17
states [9] - 48:2, 52:16, 53:9, 53:25, 55:11, 59:5, 60:4, 63:8, 63:13
stating [1] - 20:17
stationed [1] - 8:13
statute [17] - 46:18, 46:24, 46:25, 48:11, 48:13, 48:22, 49:8, 49:9, 49:11, 54:3, 54:16, 54:24, 55:4, 55:14, 56:2, 56:15, 66:13
stemmed [1] - 49:4
stems [1] - 16:14
stick [1] - 38:25
stickler [1] - 57:8
still [7] - 26:25, 33:10, 40:3, 42:7, 45:2, 50:4, 55:10
store [1] - 59:17
story [1] - 70:13
strange [1] - 21:6
strike [1] - 60:20
striking [1] - 57:12
stringent [1] - 56:12
strip [1] - 59:16
strongest [1] - 70:8
structures [1] - 7:10
struggle [2] - 47:23, 68:17
studied [1] - 7:9
studies [8] - 7:2, 7:3, 7:11, 7:23, 11:21, 13:12, 19:15, 43:2
study [20] - 6:25, 11:18, 11:25, 13:10, 13:11, 16:6, 21:1, 22:1, 22:2, 38:17, 39:19, 40:17, 42:2, 42:12, 42:25, 43:9, 43:16, 43:22, 43:24, 44:14
subcontractors [1] - 12:25
subject [1] - 55:16
subjective [2] - 31:8, 52:8
submission [1] - 13:9
submitted [4] - 6:24,

12:5, 13:14, 19:16
substantial [4] - 7:21, 9:21, 9:24, 13:17
substantially [6] - 8:19, 9:5, 9:25, 10:7, 17:24, 19:4
sudden [1] - 34:8
suffice [1] - 25:24
sufficient [1] - 70:1
suggested [3] - 13:19, 31:10, 52:25
suggestion [2] - 32:9, 58:15
suggestions [2] - 20:15, 27:4
SULLY [1] - 74:3
summary [2] - 10:19, 14:19
sunglasses [1] - 44:19
supplant [2] - 38:11, 60:21
support [6] - 8:8, 9:8, 18:17, 48:1, 70:3, 70:14
supported [5] - 9:21, 10:16, 68:4, 68:14, 68:15
supporting [3] - 19:1, 32:24, 72:19
survey [1] - 16:25
surveys [1] - 7:24
Swanson [5] - 6:5, 6:6, 10:24, 21:18, 66:6
Swanson's [1] - 68:19
system [2] - 23:4, 23:6

T

takings [1] - 9:14
talks [1] - 21:25
task [1] - 66:12
taxes [1] - 8:11
tear [1] - 58:3
teleconferenced [1] - 2:1
Teleconferenced [1] - 1:7
temporary [1] - 8:11
terms [2] - 25:13, 55:18
test [2] - 22:6, 34:12
testified [3] - 9:5, 12:15, 12:19
testify [1] - 41:13
testimony [7] - 8:25, 9:8, 9:15, 41:20, 67:23, 68:2, 70:8
THE [5] - 1:1, 1:2, 1:4, 1:10
themselves [2] - 6:23, 17:10
theory [1] - 70:1
therefore [2] - 7:8, 29:12
therein [1] - 55:19
they've [2] - 28:1, 70:19
thinking [6] - 37:10, 37:12, 57:12, 62:5, 64:24, 70:24
third [2] - 40:16, 60:3
thoughts [1] - 23:10
thousands [1] - 71:5
threat [4] - 7:17, 7:22, 11:13, 17:22
three [13] - 5:25, 6:10, 11:16, 12:20, 16:5, 19:11, 33:18, 34:19, 38:18, 40:21, 47:20, 47:22, 62:7
three-year [1] - 16:5
threshold [1] - 7:6
throughout [3] - 52:9, 52:11, 66:16
throw [1] - 21:10
Thurber [2] - 1:14, 15:6
Title [1] - 54:5
today [12] - 4:24, 5:23, 11:4, 15:18, 17:3, 32:4, 41:3, 46:19, 47:5, 71:14, 72:6, 72:12
today's [1] - 52:19
together [4] - 29:14, 38:7, 57:17, 66:2
took [4] - 34:7, 37:25, 41:14, 74:9
top [2] - 62:19, 62:23
topsoil [2] - 59:16, 59:17
totally [1] - 53:19
touch [1] - 66:17
touched [1] - 68:19
tourism [1] - 12:12
township [1] - 14:18
toxic [1] - 13:7
traded [1] - 39:5
traffic [3] - 12:10, 12:11, 20:2
transcribed [1] - 5:11
transcribing [1] - 5:12
Transcript [1] - 1:7
transcript [1] - 2:1
transcription [1] - 74:12
transfer [3] - 53:25, 56:10, 56:19
transferred [1] - 55:16
transferring [1] - 56:16
transfers [2] - 56:7, 57:2
travelers [1] - 14:15
traveling [1] - 57:21
tremendous [1] - 71:3
trepidation [1] - 47:11
trespass [1] - 9:14
tribes [1] - 7:24
tried [2] - 50:7, 57:18
trip [1] - 73:6
trouble [1] - 64:3
troubling [1] - 66:18
trucks [1] - 58:1
true [1] - 74:11
truth [1] - 12:22
try [2] - 3:10, 19:20
trying [1] - 50:2
turbine [9] - 8:16, 9:1, 49:14, 62:11, 62:15, 62:23, 64:9, 69:6
turbines [7] - 14:7, 25:16, 31:12, 31:25, 43:5, 49:12, 62:8
turn [7] - 10:24, 11:2, 15:5, 20:10, 33:17, 51:23, 60:2
turning [1] - 8:9
twice [1] - 37:17
two [30] - 3:6, 13:14, 15:16, 15:21, 21:7, 28:1, 33:19, 34:18, 38:4, 38:12, 38:13, 39:6, 40:13, 41:16, 41:17, 41:21, 41:22, 42:9, 42:22, 42:24, 43:2, 43:10, 43:17, 44:18, 46:23, 47:1, 59:15, 60:9, 62:6
two-minute [1] - 3:6
two-year [6] - 38:4, 38:13, 41:16, 41:17, 42:22, 42:24
type [2] - 5:14, 39:4
types [1] - 59:1
typically [1] - 13:13

U

U.S [1] - 16:1
uncomfortable [2] - 48:7, 67:21
unconvinced [1] - 17:13
under [8] - 14:21, 20:3, 25:11, 29:12, 37:18, 55:20, 56:2, 59:8
undermine [1] - 63:3
understood [1] - 59:22
undertake [1] - 38:13
unduly [3] - 10:15, 18:1, 19:5
United [1] - 25:17
unless [4] - 46:17, 54:1, 63:4, 65:15
unnecessary [2] - 46:25, 50:9
unpersuasive [1] - 14:20
unreasonable [2] - 14:12, 18:24
unusable [1] - 18:21
up [17] - 8:12, 10:11, 27:16, 29:8, 29:18, 31:7, 38:25, 42:2, 43:13, 43:16, 43:23, 52:24, 55:15, 56:19, 59:13, 66:23, 69:6
upcoming [1] - 48:23
useful [1] - 40:17
Utilities [8] - 3:16, 55:17, 56:6, 69:17, 70:17, 71:15, 71:20, 72:4
UTILITIES [2] - 1:1, 1:10
utility [1] - 44:1
utilize [1] - 30:11

V

vacillating [1] - 48:5
valuation [3] - 67:23, 67:24, 68:2
valuations [1] - 71:25
value [3] - 68:7, 68:11, 69:7
values [1] - 68:3
variety [1] - 24:19
verb [1] - 59:19
verbatim [1] - 30:5
verbiage [1] - 52:8
verify [2] - 28:13, 28:15
viable [1] - 13:6
VICE [1] - 1:11
Vice [1] - 21:21
voluntarily [1] - 33:5
voluntary [2] - 16:1, 16:18
vote [2] - 44:20, 67:14
voted [1] - 36:9
votes [13] - 35:11, 35:12, 36:1, 44:23, 44:25, 50:20, 50:22, 51:19, 51:20, 61:23, 61:24, 73:1, 73:3

W

waiver [1] - 63:23
waste [3] - 13:6, 13:7
water [7] - 24:1, 24:5, 24:9, 24:15, 25:10, 25:20, 25:22
waters [1] - 25:17
wear [1] - 58:2
website [4] - 26:20, 28:3, 29:3
week [1] - 10:6
weekends [1] - 60:9
weight [1] - 6:14
welcomed [1] - 3:5
welfare [9] - 8:19, 9:6, 10:1, 11:15, 12:18, 12:25, 17:25, 18:9, 19:4
Wells [1] - 39:25
WELLS [1] - 40:4
wells [1] - 42:8
whereas [1] - 43:5
whichever [1] - 45:20
whoever's [1] - 65:10
whole [2] - 68:18, 70:13
whooping [4] - 30:24, 31:3, 32:22, 37:5
wildlife [6] - 15:25, 24:3, 24:10, 24:14, 25:23, 40:20
Wildlife [1] - 16:2
willing [3] - 31:24, 39:18, 39:21
Wind [22] - 1:18, 5:16, 5:21, 6:14, 15:11, 16:1, 16:2, 16:6, 16:7, 16:17, 16:24, 17:1, 20:18, 20:21, 20:25, 21:6, 26:12, 31:11, 31:13, 31:20, 35:18, 61:10
wind [24] - 5:16, 5:20, 25:2, 25:14, 26:11, 40:9, 41:23, 42:5, 42:10, 62:8, 62:10, 62:14, 62:15, 64:9, 66:18, 68:3, 68:6, 68:11, 68:25, 69:1, 69:5, 69:6, 69:7
WIND [2] - 1:4, 1:5
window [1] - 38:16
wish [3] - 36:5, 65:15, 69:19
withdraw [1] - 57:1
witness [6] - 8:24, 13:14, 13:21, 14:2,

16:15, 31:22
witnesses [1] - 9:15
WITTLER [1] - 74:5
Wittler [4] - 1:24, 5:12, 74:17, 74:18
wondering [4] - 24:10, 24:20, 58:11, 62:16
word [18] - 28:15, 29:22, 35:16, 38:11, 38:12, 57:12, 58:15, 60:21, 62:7, 62:8, 62:9, 62:10, 62:11, 62:12, 62:14, 62:20, 64:8, 69:1
words [2] - 43:15, 59:15
workers [2] - 8:12, 8:13
world [1] - 32:24
worry [1] - 37:2
wrestling [2] - 47:12, 47:25
write [1] - 52:21
writes [1] - 53:1
written [4] - 26:17, 31:7, 34:22, 52:24

X

Xcel [3] - 16:3, 40:7, 40:16

Y

yardstick [1] - 69:25
year [23] - 15:23, 16:4, 16:5, 38:2, 38:4, 38:13, 38:18, 38:24, 39:6, 40:14, 41:7, 41:16, 41:17, 42:7, 42:22, 42:24, 43:18, 43:25, 44:13, 44:18
years [17] - 9:4, 12:20, 15:22, 25:8, 38:18, 40:13, 41:21, 41:22, 41:25, 42:9, 42:15, 42:17, 43:17, 47:22, 48:23, 66:19, 66:20
yield [1] - 65:13
yourself [2] - 5:11, 5:13
yourselves [1] - 3:13

Z

zero [1] - 14:6

Crowned Ridge II

Nelson Proposed Amendments to Staff Exhibit S7 Permit Conditions

1. Paragraph 1, second sentence: Insert “itemized” prior to “affidavit”.
2. Paragraph 4(a): Insert “Order and” prior to “Permit” and “Conditions” after “Permit”.
3. Replace Paragraph 29 with: “Applicant agrees to undertake one year of independently-conducted post-construction avian and bat mortality monitoring for the Project, and to provide a copy of the report and all further reports to the United States Fish and Wildlife Services, South Dakota Game, Fish and Parks, and the Commission. The Applicant also agrees to fund a federal grant match for the SD GF&P State Wildlife Action Plan designed to facilitate an
additional component for the grouse study on avian predator interactions with wind projects. This particular study component must be consistent with SD GF&P State Wildlife Action Plan priorities and must be designed to inform the scientific literature regarding potential mechanisms that may explain grouse and wind project interactions.”

4. Replace Paragraph 34 with: “The Applicant shall apply to the Federal Aviation Administration (FAA) for approval to utilize an Aircraft Detection Lighting System. Such application shall be made to allow enough time for FFA determination and system construction prior to the commercial operation date of the project. If approved the system will be operated in accordance with the applicable FAA requirements starting with the commercial operation date and for the life of the project, subject to normal maintenance and forced outage.”
5. Delete Paragraph 40.
6. Add a new paragraph: “Applicant shall establish a procedure for preventing whooping crane collisions with wind turbines during operations by establishing and implementing formal plans for monitoring the Project site and surrounding area for whooping cranes during spring and fall migration periods throughout the operational life of the Project and shutting down wind turbines and/or construction activities within 2 miles of whooping crane sightings. The SD GF&P will be consulted on the procedure to minimize impacts to whooping cranes.”
7. Minor grammatical changes.
8. Add a new paragraph: “Commercial operation may not begin prior to completion of the installation of LNTE blade attachments on Crowned Ridge I turbines.”
9. Add a new paragraph: “Project owner must cooperate with agricultural spray applicators in shutting down turbines as needed to facilitate safe and effective spray operation and application.”
10. Add a new paragraph: “Applicant shall allow Crowned Ridge Wind, LLC, access to the Project Area to conduct a pre- and postconstruction study to evaluate the potential effect of the Crowned Ridge Wind II Project on the local prairie grouse populations. Crowned Ridge Wind, LLC plans to conduct studies in the Crowned Ridge Wind II Project Area in accordance with the plan submitted on December 18, 2019, in Docket EL19-003.

From: PUC <PUCPF@state.sd.us>
Sent: Tuesday, March 17, 2020 3:22 PM
To: 'office@sdwea.org' <office@sdwea.org>
Subject: EL20-002 AND EL19-027

Ms. Stalley,

Thank you for your letter regarding the Order to Show Cause for Crowned Ridge Wind's aircraft detection lighting system, docket EL20-002. You also referenced the Crowned Ridge II siting permit request, docket EL19-027.

Your letter is posted under Comments and Responses in both of the dockets so my fellow commissioners and others interested may read them. You can find these dockets at the PUC.sd.gov website by clicking on Commission Actions, Commission Dockets, Electric Dockets, then 2020 Electric Dockets and 2019 Electric Dockets, and scrolling down to the specific docket numbers. I suggest you also read the Siting Info Guide linked in these dockets and also posted on the commission's home page.

Chairman Gary Hanson
South Dakota Public Utilities Commission
PUC.sd.gov

From: Peder Mewis
Sent: Wednesday, 18 March 2020 09:17:00 (UTC-06:00) Central Time (US & Canada)
To: PUC Docket Filings
Subject: [EXT] Existing Docket Filing

Docket Number: EL19-027 Last Name: Mewis First Name: Peder Company: Clean Grid Alliance Address: 570 N. Asbury St. 201 City: Saint Paul State: Minnesota Zip: 55104 Phone: 6512713648 Email: pmewis@cleangridalliance.org Comments: Support letter for Crowned Ridge II Wind Project

CLEAN GRID ALLIANCE

March 17, 2020

Ms. Patricia Van Gerpen
Executive Director
South Dakota Public Utilities Commission
500 East Capitol Avenue
Pierre, SD 57501

Re: **In the Matter of the Application by Crowned Ridge Wind II, LLC for a Permit of a Wind Energy Facility in Grant, Codington and Duel Counties**
Docket No. EL19-027

Clean Grid Alliance (CGA) appreciates the opportunity to comment on the Crowned Ridge II wind project.

CGA is a nonprofit organization headquartered and working in Minnesota, plus eight additional states in the Midwest, including South Dakota. CGA's membership consists of wind and solar developers, manufacturers, and nonprofit clean energy advocacy organizations.

The wind industry has invested $2.2 billion in South Dakota, and tax revenue flowing to counties that host wind farms amounts to over $21.5 million since 2009. The economic benefits that come with them can be a lifeline for sparsely populated counties that have limited tax base.

Wind development projects like Crowned Ridge II will continue to build on those benefits to rural South Dakota in many ways. Along with the additional revenue flowing to landowners and local communities, businesses like restaurants, gas stations, and hotels also benefit from the jobs that come with building and maintaining wind energy facilities.

CLEAN GRID ALLIANCE

For instance, a 300 MW wind project that was recently approved in South Dakota will pay approximately $2.5 million per year to landowners and approximately $1.5 million per year in property taxes. This amounts to $120 million in total local financial injection over the 30-year project.

South Dakota has enormous potential for renewable energy development. I appreciate the opportunity to comment and thank you for the Commission's consideration of the Crowned Ridge II wind project application.

Sincerely,



Peder Mewis
Regional Policy Manger – West

Delivering Midwest Renewable Energy

ADDRESS
570 Asbury Street, Suite 201, St. Paul, MN 55104

OFFICE
651.644.3400

WEB
CleanGridAlliance.org

From: PUC
Sent: Wednesday, March 18, 2020 4:16 PM
To: pmewis@cleangridalliance.org
Subject: EL19-027

Mr. Mewis,

Thank you for your letter regarding the Crowned Ridge II requested siting permit currently being processed by the Public Utilities Commission via docket EL19-027.

Your letter will be posted under Comments and Responses in the docket so my fellow commissioners and others interested may read them. You can find the docket on the PUC.sd.gov website by clicking on Commission Actions, Commission Dockets, Electric Dockets, 2019 Electric Dockets, and scrolling down to EL19-027.

I suggest you review the Siting Info Guide posted in the docket and also posted on the commission's home page. Please note that comments submitted to the commission by those that are not formal parties to a docket should be sent to PUC@state.sd.us.

Chairman Gary Hanson
South Dakota Public Utilities Commission
PUC.sd.gov

ADMINISTRATIVE RECORD - Scan 3 - Page 166 of 174

From: Giovannini David <DGiovannini@moldedfiberglass.com>
Sent: Wednesday, March 18, 2020 3:04 PM
To: PUC-PUC <PUC@state.sd.us>
Subject: [EXT] Crowned Ridge II Support

Dear Sirs;

Attached please find a letter of support for the Crowned Ridge II wind project.

Best Regards,

Dave

David M Giovannini
Sr Vice President
Molded Fiber Glass Companies
dgiovannini@moldedfiberglass.com
605-725-9362 (O)
508-769-4168 (M)

ADMINISTRATIVE RECORD - Scan 3 - Page 167 of 174

Molded Fiber Glass Companies – South Dakota
1401 Brown County #19 North
Aberdeen, SD 57401

Telephone: 605-725-9463
Fax: 605-725-9466

SUBJECT: Docket EL20-002

Dear Commissioners Hanson, Fiegen, and Nelson –

In early December of 2017, our company announced it would be closing its doors by February 2018. Our 409 employees were left wondering how they were going to feed their families or keep a roof over their heads. Then, later that same month, NextEra Energy put in an order for wind turbines that would power Crowned Ridge Wind Farm. Because of that order, our company was able to keep its door open and even hire more people to fill that order. To this day, Molded Fiber Glass Companies remains a major employer within Aberdeen.

We are excited to hear about the proposal of Crowned Ridge Wind II that was placed in front of the South Dakota Public Utilities Commission. NextEra Energy has proven their support of small businesses and local communities as we have benefitted the most from the original wind farm. Crowned Ridge II would provide yet another opportunity for our communities to keep people at work and provide new jobs to our neighbors.

I respectfully ask that you approve Crowned Ridge Wind II, as your approval of the Crowned Ridge wind farm kept our business and community thriving.

Sincerely,

Dave

David M Giovannini
Sr. Vice President
Molded Fiber Glass Companies

LAW OFFICES
Lynn, Jackson, Shultz & Lebrun, P.C.
LAWYERS ALSO ADMITTED IN MINNESOTA, IOWA, NORTH DAKOTA, AND WYOMING
www.lynnjackson.com

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FAX 605-332-4249

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605-722-9000
FAX 605-722-9001

909 ST. JOSEPH STREET
SUITE 800
RAPID CITY, SD 57701
605-342-2592
FAX 605-342-5185

REPLY TO: Sioux Falls 605-332-5999

From the office of Miles F. Schumacher
e-mail address: mschumacher@lynnjackson.com

March 19, 2020

Via Electronic Filing

Ms. Patricia Van Gerpen
Executive Director
South Dakota Public Utilities Commission
500 East Capitol Avenue
Pierre, SD 57501

Re: Docket #EL19-027
Application to the SD PUC for a Facility Permit to Construct
A 300 megawatt Wind Facility

Dear Ms. Van Gerpen:

In accordance with the anticipated Conditions of the Permit to Construct Facility approved by the South Dakota Public Utilities Commission ("Commission") on March 17, 2020, in the above-referenced docket, Crowned Ridge Wind, LLC "(Crowned Ridge") submits the attached, which provides the identity and qualifications of the proposed public liaison officer, who works for a contractor of the Applicant.

If you have any questions, please contact me.

Yours very truly,

LYNN, JACKSON, SHULTZ & LEBRUN, P.C.

Miles F. Schumacher
MFS:alf
cc: Brian Murphy

014088



Brian Riniker, PLS
Project Manager

Brian has served for three years as the fulltime field project manager for the NextEra Crowned Ridge II Wind Farm. The project, when completed, will be a 300-megawatt wind farm covering approximately 112 square miles, impacting multiple areas of cultural and environmental significance. In this key role Brian leads logistical coordination with NextEra's subcontractors to perform preliminary geotechnical testing as well as environmental and cultural studies for the site. Importantly, Brian also serves as a trusted on-site expert representative during county engineering meetings, zoning meetings and public information hearings.

Beyond his experience as a land surveyor, Brian served for two years as the mayor of a small city in Iowa, applying his considerable leadership skills to everything from city council meetings to resident feedback to public event logistics. As the mayor Brian was exposed to both positive and challenging feedback from the community and leadership. Brian was able to work collaboratively and reach consensus with all stakeholders in the small community in order to perform infrastructure upgrades.

With the Crowned Ridge II project and others like it, Brian consistently performs informational and liaison duties with project managers, right-of-way agents, environmental engineers and scientists, government officials, landowners and the general public. Throughout his career, Brian's success working with disparate stakeholder groups has been driven by his commitment to meet goals, build relationships and respond with expertise and shared understanding.

Education
AS, General Science
Northeast Iowa Community College

Professional Registrations
ND Professional Land Surveyor
IA Land Survey Intern

Professional Memberships
Society of Land Surveyors of Iowa
North Dakota Society of Professional Land Surveyors
South Dakota Society of Professional Land Surveyors
Young Surveyors Network – NSPS
American Association of Geodetic Surveyors

Certifications
OSHA 10 hour Safety
E-Railsafe

Industry Tenure
Nine years

Ulteig tenure
Three years

Relevant Experience

Crowned Ridge I Wind Farm
Waverly, South Dakota
Served as the Public Liaison Officer on behalf of the South Dakota Public Utilities Commission. Worked with both Participants and Non-Participants to resolve concerns and complaints collaboratively with the Developer. Provide regular updates on site concerns/complaints to the consumer affairs division of the South Dakota Public Utilities Commission.

Burbach Subdivision
Balltown, Iowa
Successful creation of a multiple-lot rural subdivision for residential development in an agricultural area. Landowner created subdivision in order to allow children to move back to farm to assist with ongoing farming operations.

Worked with landowner and permitting agencies to obtain approvals and permits. Represented the project at multiple public meetings to obtain approvals and responded to concerns from adjacent landowners.

Dohrmann Subdivision
Fayette, Iowa
Successful creation of a multiple-lot subdivision for residential development in the city of Fayette, Iowa.

Worked with landowner, City of Fayette, Fayette County and Upper Iowa University in order to obtain approvals and permits. Project required close coordination with landowner, university, and the City in order to produce a preliminary layout that encompassed the condominiums, streets and related grading on the donated parcel while providing scenic views of the baseball complex.

BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF SOUTH DAKOTA

IN THE MATTER OF THE APPLICATION BY CROWNED RIDGE WIND II, LLC FOR A PERMIT OF A WIND ENERGY FACILITY IN DEUEL, GRANT AND CODINGTON COUNTIES	)))))	EL19-027 **CERTIFICATE OF SERVICE**

I hereby certify that true and correct copies of the Applicant's letter to the PUC identifying the proposed public liaison officer, with attachment, in this matter were served electronically to the parties listed below on the 19th day of March, 2020, addressed to:

Ms. Patricia Van Gerpen
Executive Director
patty.vangerpen@state.sd.us

Ms. Kristen Edwards
Staff Attorney
Kristen.Edwards@state.sd.us

Ms. Amanda Reiss
Staff Attorney
Amanda.reiss@state.sd.us

Mr. Mikal Hanson
Staff Attorney
mikal.hanson@state.sd.us

Mr. Darren Kearney
Staff Analyst
Darren.kearney@state.sd.us

Mr. Jon Thurber
Staff Analyst
Jon.thurber@state.sd.us

Mr. Eric Paulson
Staff Analyst
Eric.paulson@state.sd.us

Mr. Brian J. Murphy
Senior Attorney
NextEra Energy Resources, LLC
Brian.j.murphy@nee.com

Mr. Tyler Wilhelm
Associate Project Manager
NextEra Energy Resources, LLC
Tyler.Wilhelm@nexteraenergy.com

Ms. Cindy Brugman
Auditor
Codington County
cbrugman@codington.org

Ms. Karen Layher
Auditor
Grant County
Karen.Layher@state.sd.us

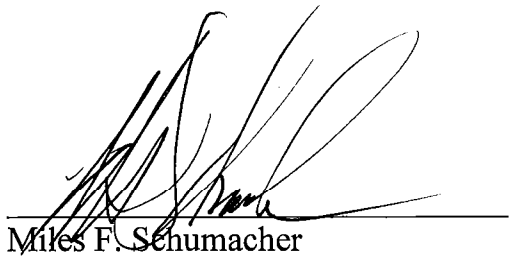
Ms. Mary Korth
Auditor
Deuel County
dcaudit1@itctel.com

Ms. Kristi Mogen
silversagehomestead@gmail.com

Mr. Allen Robish
allen.robish@gmail.com

Ms. Amber Christenson
amber@uniformoutlet.net

A.J. Swanson
ARVID J. SWANSON, P.C.
aj@ajswanson.com



Miles F. Schumacher
Attorneys for Applicant
Lynn, Jackson, Shultz & Lebrun, PC
110 N. Minnesota Ave., Suite 400
Sioux Falls, SD 57104

From: PUC
Sent: Thursday, March 19, 2020 10:03 AM
To: DGiovannini@moldedfiberglass.com
Subject: EL19-027 AND EL20-002

Mr. Giovannini,

Thank you for your letter regarding the Crowned Ridge II requested siting permit processed by the Public Utilities Commission, docket EL19-027. Your letter references EL20-002, and this docket concerns the earlier Crowned Ridge project and a Motion to Show Cause.

Both dockets were on the commission's meeting agenda on Tuesday, March 17. Commissioners voted to issue a siting permit for the Crowned Ridge II project with numerous conditions. You can read about this by accessing the press release posted under the News tab on the PUC.sd.gov website.

Your letter will be posted under Comments and Responses in both dockets so my fellow commissioners, Chris Nelson and Kristie Fiegen, and others interested may read them. You can find the dockets on the PUC's website by clicking on Commission Actions, Commission Dockets, Electric Dockets, 2019 Electric Dockets and 2020 Electric Dockets, and scrolling down to the specific dockets referenced above.

I suggest you read the Siting Info Guide posted in the EL19-027 docket and linked to the commission website's home page.

Chairman Gary Hanson
South Dakota Public Utilities Commission
PUC.sd.gov

ADMINISTRATIVE RECORD - Scan 3 - Page 174 of 174

LAW OFFICES
Lynn, Jackson, Shultz & Lebrun, P.C.
LAWYERS ALSO ADMITTED IN MINNESOTA, IOWA, NORTH DAKOTA, AND WYOMING
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FAX 605-722-9001

909 ST. JOSEPH STREET
SUITE 800
RAPID CITY, SD 57701
605-342-2592
FAX 605-342-5185

REPLY TO: Sioux Falls 605-332-5999

From the office of Miles F. Schumacher
e-mail address: mschumacher@lynnjackson.com

March 23, 2020

Via Electronic Filing

Ms. Patricia Van Gerpen
Executive Director
South Dakota Public Utilities Commission
500 East Capitol Avenue
Pierre, SD 57501

Re: Docket #EL19-027
Application to the SD PUC for a Facility Permit to Construct
A 300 megawatt Wind Facility

Dear Ms. Van Gerpen:

In accordance with paragraph 14 of the draft Permit Conditions, Crowned Ridge Wind II, LLC (Crowned Ridge) submits the following documents:

1. Storm Water Pollution Prevention Plans; and
2. A corresponding Certificate of Service.

If you have any questions, please contact me.

Yours very truly,

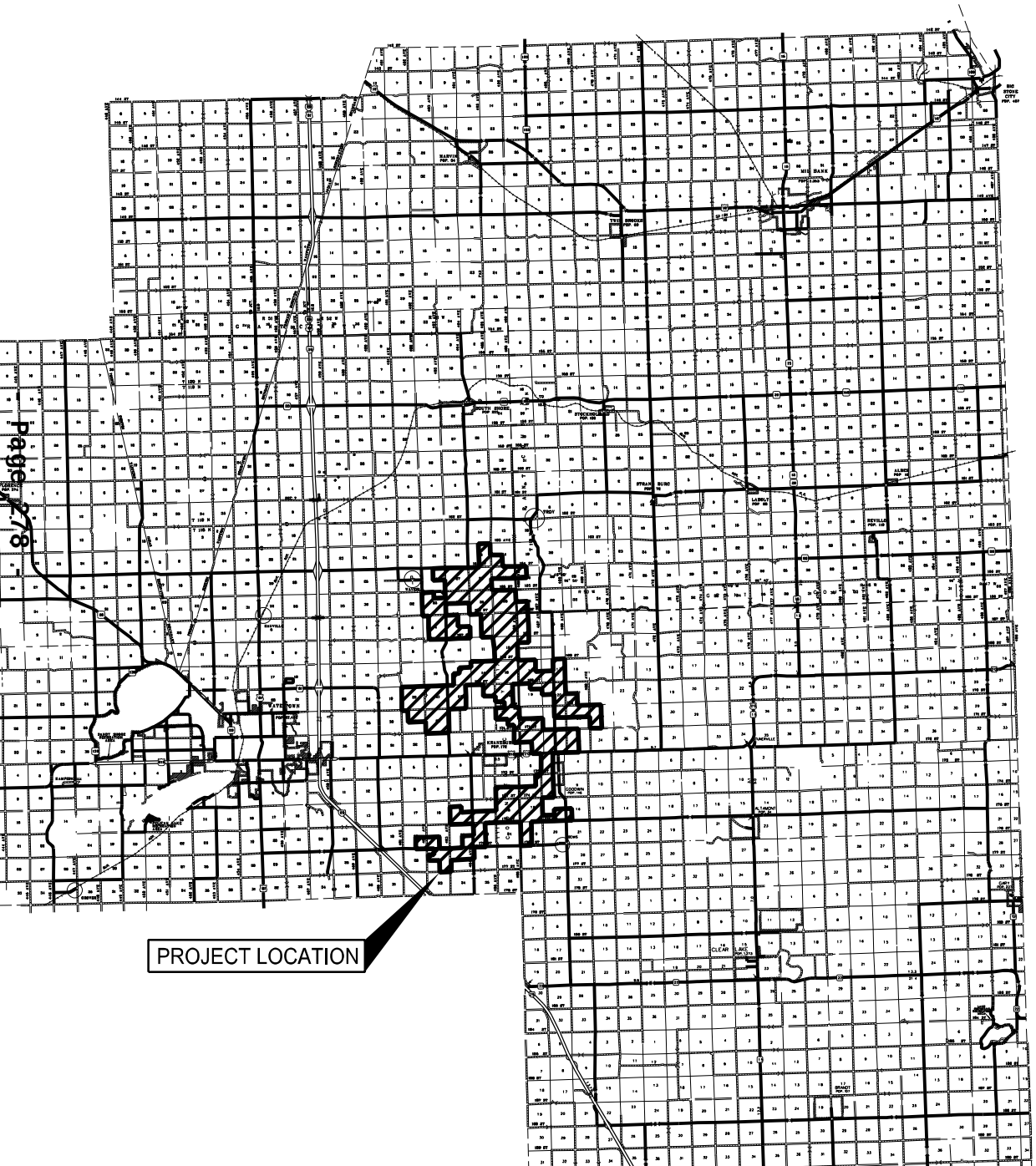
LYNN, JACKSON, SHULTZ & LEBRUN, P.C.

Miles F. Schumacher
MFS:kab

014094

CROWNED RIDGE II WIND

CODINGTON, DEUEL & GRANT COUNTIES, SOUTH DAKOTA



INDEX OF SHEETS

1	TITLE SHEET
2	OVERALL SITE PLAN
3-9	STORM WATER POLLUTION PREVENTION P
10	STORM WATER POLLUTION PREVENTION P
11-12	STORM WATER POLLUTION PREVENTION P

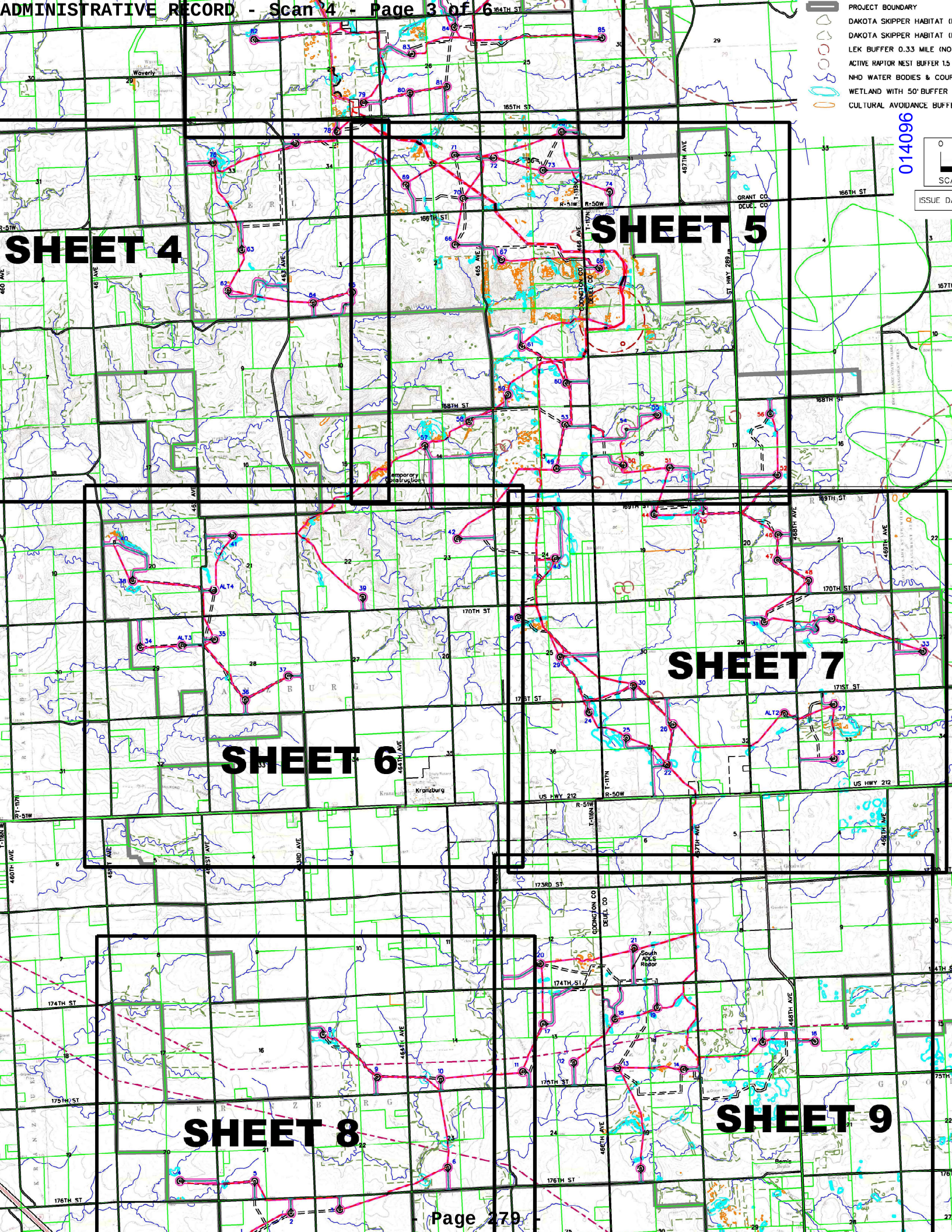


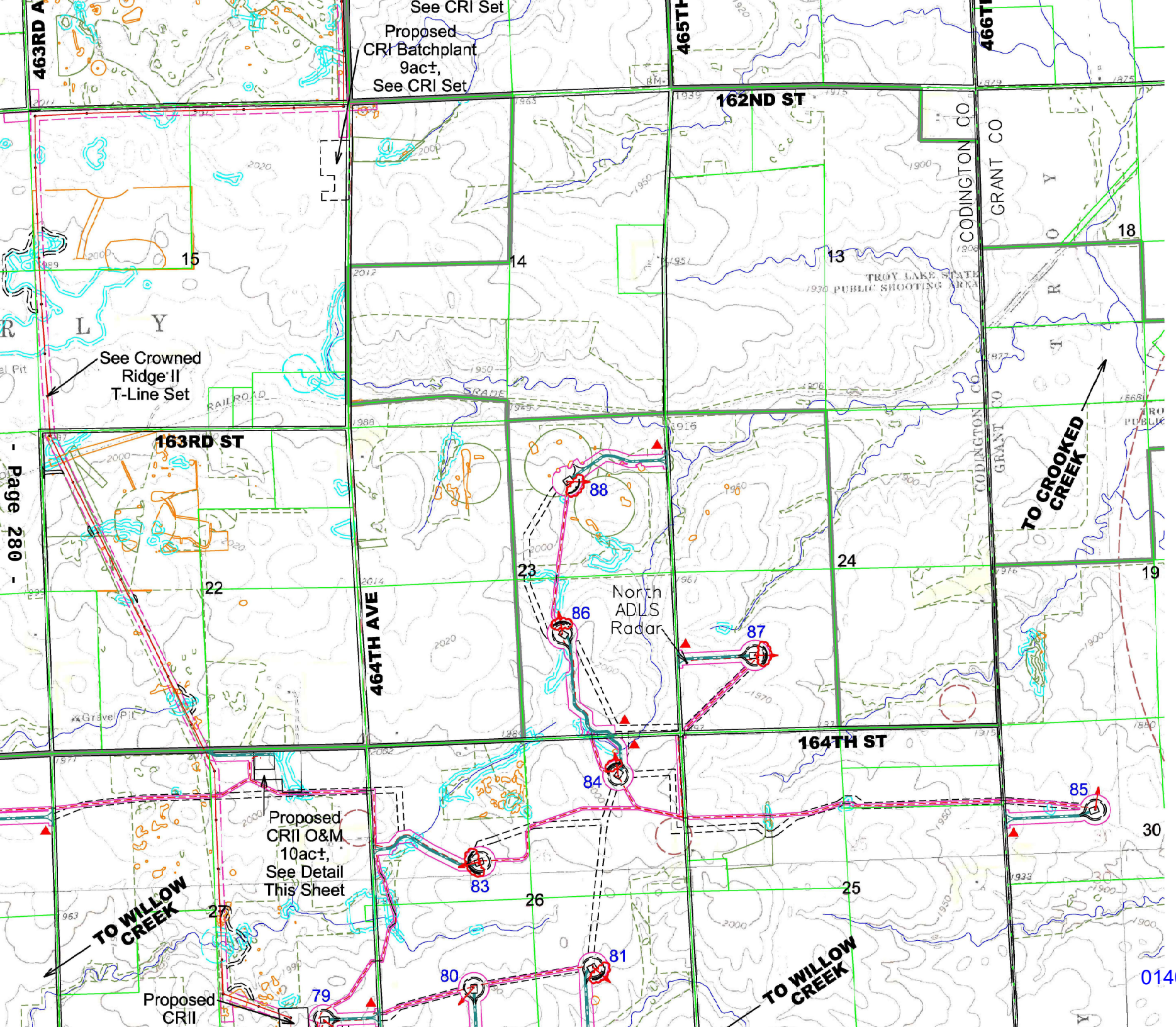
SOUTH DAKOTA

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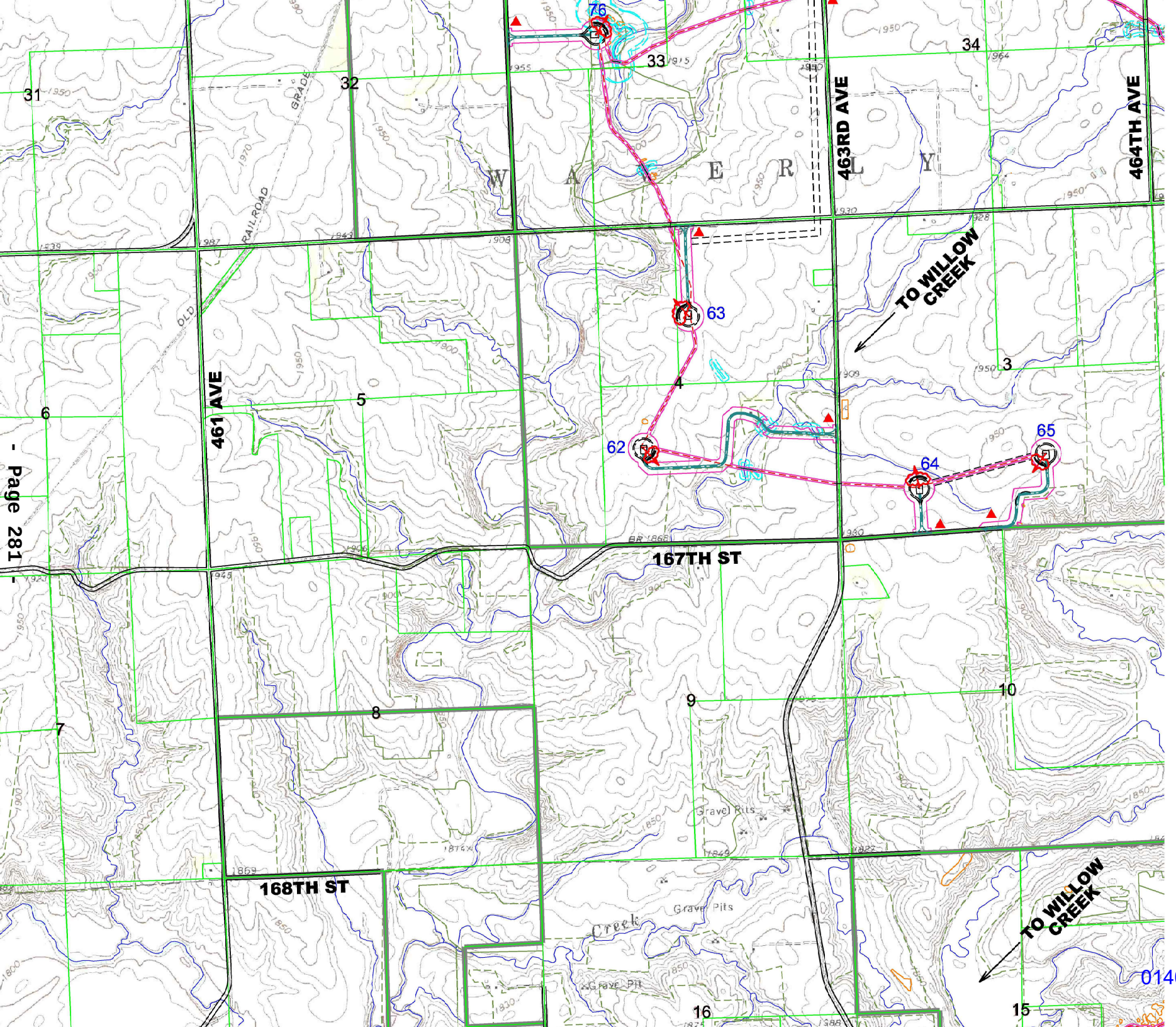
ADMINISTRATIVE RECORD - Scan 4 - Page 2 of 6

- Page 278 -


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DAKOTA SKIPPER HABITAT (
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SHEET 7
SHEET 8
SHEET 9
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Kranzburg
Bemis
South ADLS Radar
Temporary Construction
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GRANT CO
DEUEL CO
CODINGTON CO
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ALT3
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166TH ST
167TH ST
168TH ST
169TH ST
170TH ST
171ST ST
173RD ST
174TH ST
175TH ST
176TH ST
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462ND AVE
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R-50W

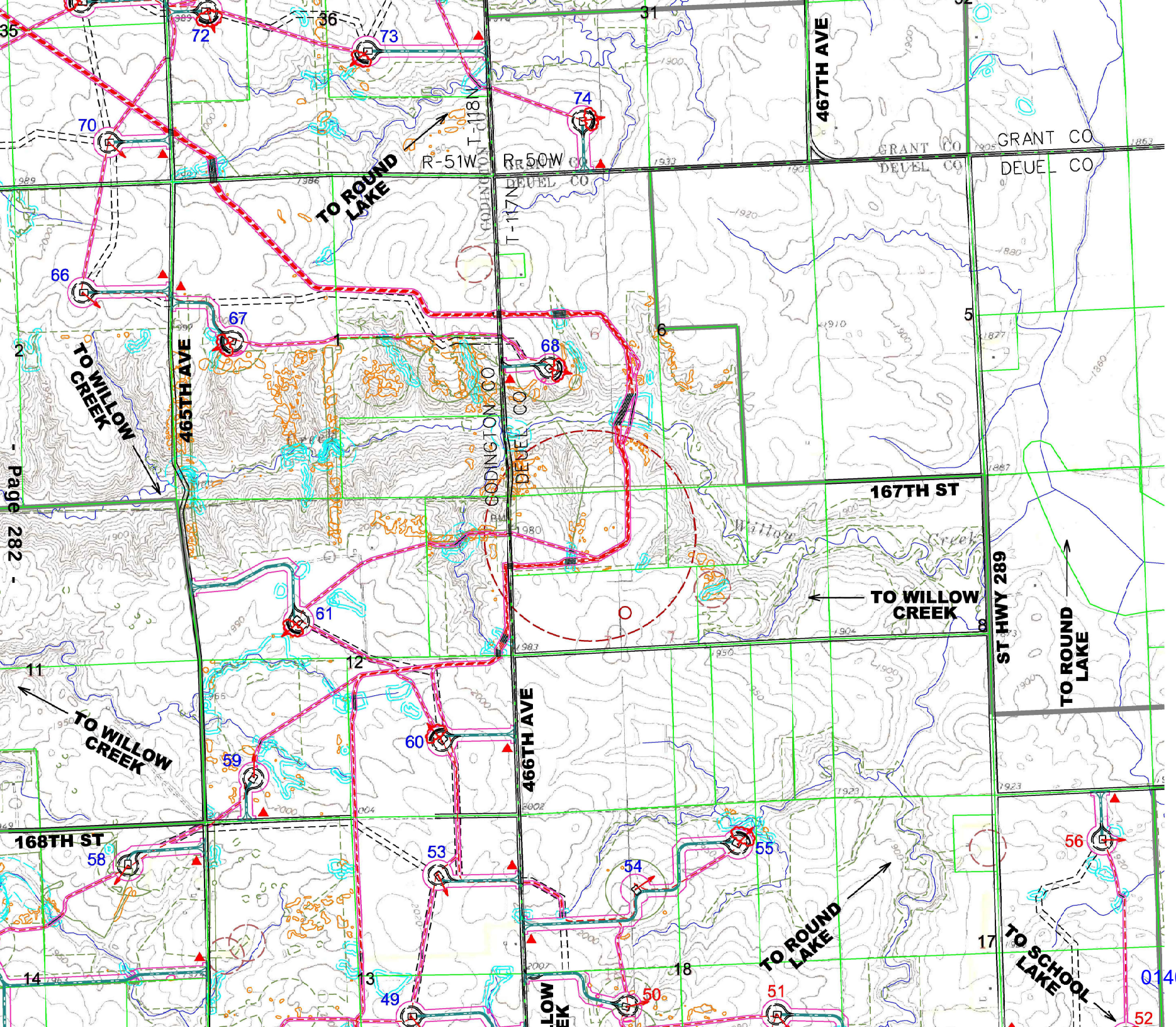

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ADMINISTRATIVE RECORD
Scale 4
Page 4 of 6
TEMPORARY ACCESS
PROPOSED UNDERGROUND
PROPOSED OVERHEAD
PROPOSED CONSTRUCTION
PROPOSED ALTERNATE
PROPOSED TRANSMISSION
PROPOSED CRANE PATH
PROPOSED ADLS
PROPERTY BOUNDARY
EXISTING ROAD
EXISTING TRANSMISSION
PROJECT BOUNDARY
DAKOTA SKIPPER
DAKOTA SKIPPER
LEK BUFFER 0.6
ACTIVE RAPTOR NEST
NHD WATER BODIES
WETLAND WITH 50'
CULTURAL AVOIDANCE
BORING
NATURAL DRAINAGE
SILT FENCE TO BE
SEE DETAIL SHEET
AND LOCATIONS TO
DURING CONSTRUCT
DIVERSION BERM
SEDIMENT TRAP
PROVIDE OUTLET
FOR CULVERT,
AREAS WITHIN
REQUIREMENTS
SHEET 4
SHEET 6
SHEET 8
SHEE



ADMINISTRATIVE RECORD

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TO ROUND LAKE
TO WILLOW CREEK
465TH AVE
466TH AVE
467TH AVE
167TH ST
168TH ST
ST HWY 289
GODINGTON CO
DEUEL CO
GRANT CO
R-51W
R-50W
T-118 N
T-117N
TO SCHOOL LAKE
014099

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FAX 605-722-9001

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SUITE 800
RAPID CITY, SD 57701
605-342-2592
FAX 605-342-5185

REPLY TO: Sioux Falls 605-332-5999

From the office of Miles F. Schumacher
e-mail address: mschumacher@lynnjackson.com

March 23, 2020

Via Electronic Filing

Ms. Patricia Van Gerpen
Executive Director
South Dakota Public Utilities Commission
500 East Capitol Avenue
Pierre, SD 57501

Re: Docket #EL19-027
Application to the SD PUC for a Facility Permit to Construct
A 300 megawatt Wind Facility

Dear Ms. Van Gerpen:

In accordance with paragraph 12 of the draft Permit Conditions, Crowned Ridge Wind II, LLC (Crowned Ridge) submits the following documents:

1. Confidential Monitoring and Discovery Plan; and
2. A corresponding Certificate of Service.

Prior to the commencement of construction, Applicant agrees to develop an unanticipated discovery plan for cultural resources and comply with SDCL 34-27-25, 34-27-26, and 34-27-28 for the discovery of human remains.

If you have any questions, please contact me.

Yours very truly,

LYNN, JACKSON, SHULTZ & LEBRUN, P.C.

Miles F. Schumacher
MFS:kab
Enclosures

014110

BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF SOUTH DAKOTA

IN THE MATTER OF THE APPLICATION BY CROWNED RIDGE WIND II, LLC FOR A PERMIT OF A WIND ENERGY FACILITY IN DEUEL, GRANT AND CODINGTON COUNTIES	)))))	EL19-027 **CERTIFICATE OF SERVICE**

I hereby certify that true and correct copies of a letter to the PUC relating to a Confidential Monitoring and Discovery Plan were served electronically to the parties listed below on the 23rd day of March, 2020, addressed to:

Ms. Cindy Brugman
Auditor
Codington County
cbrugman@codington.org

Ms. Karen Layher
Auditor
Grant County
Karen.Layher@state.sd.us

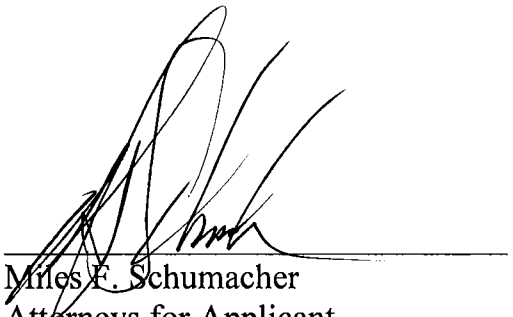
Ms. Mary Korth
Auditor
Deuel County
dcaudit1@itctel.com

Ms. Kristi Mogen
silversagehomestead@gmail.com

Mr. Allen Robish
allen.robish@gmail.com

Ms. Amber Christenson
amber@uniformoutlet.net

A.J. Swanson
ARVID J. SWANSON, P.C.
aj@ajswanson.com



Miles F. Schumacher
Attorneys for Applicant
Lynn, Jackson, Shultz & Lebrun, PC
110 N. Minnesota Ave., Suite 400
Sioux Falls, SD 57104

BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF SOUTH DAKOTA

IN THE MATTER OF THE APPLICATION BY CROWNED RIDGE WIND II, LLC FOR A PERMIT OF A WIND ENERGY FACILITY IN DEUEL, GRANT AND CODINGTON COUNTIES	)))))	EL19-027 **CERTIFICATE OF SERVICE**

I hereby certify that true and correct copies of a letter to the PUC and the Confidential Monitoring and Discovery Plan were served electronically to the parties listed below on the 23rd day of March, 2020, addressed to:

Ms. Patricia Van Gerpen
Executive Director
patty.vangerpen@state.sd.us

Ms. Kristen Edwards
Staff Attorney
Kristen.Edwards@state.sd.us

Ms. Amanda Reiss
Staff Attorney
Amanda.reiss@state.sd.us

Mr. Mikal Hanson
Staff Attorney
mikal.hanson@state.sd.us

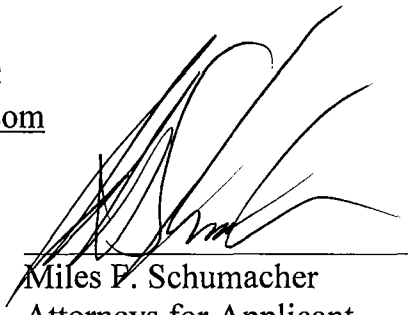
Mr. Darren Kearney
Staff Analyst
Darren.kearney@state.sd.us

Mr. Jon Thurber
Staff Analyst
Jon.thurber@state.sd.us

Mr. Eric Paulson
Staff Analyst
Eric.paulson@state.sd.us

Mr. Brian J. Murphy
Senior Attorney
NextEra Energy Resources, LLC
Brian.j.murphy@nee.com

Mr. Tyler Wilhelm
Associate Project Manager
NextEra Energy Resources, LLC
Tyler.Wilhelm@nexteraenergy.com



Miles F. Schumacher
Attorneys for Applicant
Lynn, Jackson, Shultz & Lebrun, PC
110 N. Minnesota Ave., Suite 400
Sioux Falls, SD 57104

014114

LAW OFFICES
Lynn, Jackson, Shultz & Lebrun, P.C.
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RAPID CITY, SD 57701
605-342-2592
FAX 605-342-5185

REPLY TO: Sioux Falls 605-332-5999

From the office of Miles F. Schumacher
e-mail address: mschumacher@lynnjackson.com

March 26, 2020

Via Electronic Filing

Ms. Patricia Van Gerpen
Executive Director
South Dakota Public Utilities Commission
500 East Capitol Avenue
Pierre, SD 57501

Re: Docket #EL19-027
Application to the SD PUC for a Facility Permit to Construct
A 300 megawatt Wind Facility

Dear Ms. Van Gerpen:

In accordance with paragraph 12 of the draft Permit Conditions, Crowned Ridge Wind II, LLC (Crowned Ridge) submits the following documents:

1. Confidential Historic Property Monitoring and Discovery Plan; and
2. A corresponding Certificate of Service.

If you have any questions, please contact me.

Yours very truly,

LYNN, JACKSON, SHULTZ & LEBRUN, P.C.

Miles F. Schumacher
MFS:kab
Enclosures

014182

BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF SOUTH DAKOTA

IN THE MATTER OF THE APPLICATION BY CROWNED RIDGE WIND II, LLC FOR A PERMIT OF A WIND ENERGY FACILITY IN DEUEL, GRANT AND CODINGTON COUNTIES	)))))	EL19-027 **CERTIFICATE OF SERVICE**

I hereby certify that true and correct copies of a letter to the PUC relating to a Confidential Historic Property Monitoring and Discovery Plan were served electronically to the parties listed below on the 26th day of March, 2020, addressed to:

Ms. Cindy Brugman
Auditor
Codington County
cbrugman@codington.org

Ms. Karen Layher
Auditor
Grant County
Karen.Layher@state.sd.us

Ms. Mary Korth
Auditor
Deuel County
dcaudit1@itctel.com

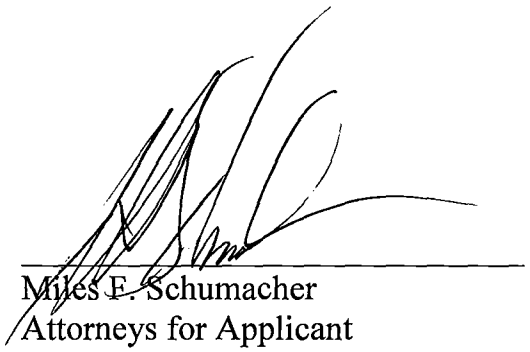
Ms. Kristi Mogen
silversagehomestead@gmail.com

Mr. Allen Robish
allen.robish@gmail.com

Ms. Amber Christenson
amber@uniformoutlet.net

014183

A.J. Swanson
ARVID J. SWANSON, P.C.
aj@ajswanson.com



Miles F. Schumacher
Attorneys for Applicant
Lynn, Jackson, Shultz & Lebrun, PC
110 N. Minnesota Ave., Suite 400
Sioux Falls, SD 57104

BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF SOUTH DAKOTA

IN THE MATTER OF THE APPLICATION BY CROWNED RIDGE WIND II, LLC FOR A PERMIT OF A WIND ENERGY FACILITY IN DEUEL, GRANT AND CODINGTON COUNTIES	)))))	EL19-027 **CERTIFICATE OF SERVICE**

I hereby certify that true and correct copies of a Confidential Historic Monitoring and Discovery Plan were served electronically to the parties listed below on the 26th day of March, 2020, addressed to:

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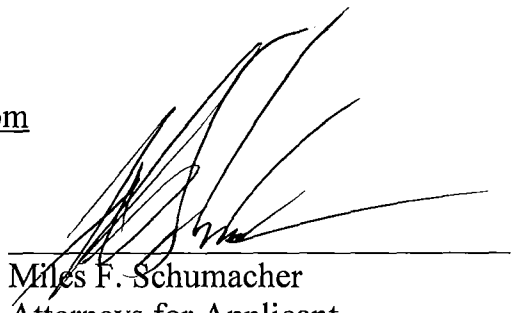
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Historic Property Monitoring and Discovery Plan for Crowned Ridge Wind and Crowned Ridge II Projects Deuel, Grant, and Codington Counties, South Dakota

Prepared for:

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and
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HDR Engineering, Inc.

and

SWCA Environmental Consultants

April 16, 2019

(Table 1 revised 3-25-2020)

1. INTRODUCTION

This Monitoring and Discovery Plan (Plan) was developed to maintain standard avoidance and resource protection practices for significant tribal, archaeological, and historic resources (cultural resources) identified in proximity to construction activities. This Plan further provides protocols for construction monitoring, management, and the appropriate treatment of cultural resources that may be found unexpectedly during construction or to address unexpected impacts to previously identified cultural resources.

Crowned Ridge Wind, LLC, and Crowned Ridge II, LLC, propose to develop the connecting Crowned Ridge and Crowned Ridge II Wind Facilities (Projects) pursuant to a Facility Permit Applications to the South Dakota Public Utilities Commission. No federal involvement that would require review under Section 106 of the National Historic Preservation Act is anticipated for the Projects.

The Projects will each consist of 300-MW wind facilities, each containing approximately 130 turbines. The facilities will produce energy sold to Xcel Energy through a Power Purchase Agreement and connect to the existing Big Stone South 230-kilovolt (kV) substation located near Big Stone, South Dakota. The Big Stone South substation is owned by Otter Tail Power Company. The Projects include transmissions lines connecting between the Crowned Ridge Wind Facility and the Crowned Ridge II Wind Facility (for a length of 5 miles) and between the Crowned Ridge Wind Facility and Big Stone (for a length of 34 miles).

Crowned Ridge Wind, LLC, and Crowned Ridge Wind II, LLC, are wholly owned, indirect subsidiaries of NextEra Energy Resources, LLC (NEER). To protect important cultural resource values and support Project permitting, NEER engaged the Sisseton-Wahpeton Oyate (SWO) Tribal Historic Preservation Office (THPO), HDR Engineering, Inc. (HDR), and SWCA Environmental Consultants (SWCA) to conduct inventories of all cultural resources to identify and assist in preserving those cultural resources identified to be of continuing significance. Those cultural resources concluded to be eligible for the National Register of Historic Places (NRHP) are defined to be significant and of continuing significance.

An intensive survey of areas with the potential to contain cultural resources was conducted for the Projects by SWO, with personnel from the Spirit Lake THPO, the Yankton Sioux Tribe THPO, and HDR and SWCA. All traditional cultural properties (TCPs)—those significant cultural resources of traditional or religious importance to tribes—were identified for further preservation efforts.

These known cultural resources and other unidentified cultural resources (such as those in buried archaeological contexts) could be discovered or could be inadvertently impacted during the course of construction of the Projects addressed by this Plan. Discovery situations occur when previously recorded or ‘known’ cultural resources are affected in an unanticipated manner or when previously unidentified cultural resources are encountered within construction areas. This Plan provides guidance for addressing discovery situations during pre-construction, construction, and post-construction. The procedures provided here are intended to guide the discovery review process for cultural resource properties that may be encountered.

2. ROLES AND RESPONSIBILITIES IN PRE-CONSTRUCTION COORDINATION AND MONITORING

Pre-construction coordination for each of the Projects will include:

- Constraint maps of significant cultural resources within or intersecting the easements or work spaces of planned construction areas that will require specific flagging, cordoning, or other avoidance measures to maintain offsets for construction activities (to be provided by SWCA separate from this Plan as digital GIS shapefiles).

- A list identifying those cultural resources of particular sensitivity or risk prior to each phase of construction that will specifically require Tribal Cultural Specialist (TCS) or Cultural Resource Specialist (CRS) be present to guide, monitor, and assist in upholding avoidances during earth-moving activities (see attached Table 1).

- In advance of construction, project civil surveyors will implement and demark the specific, physical avoidance measures on the ground for the above identified cultural resources in direct coordination with the lead environmental support staff from Environmental Consulting & Technology, Inc. (ECT) and the lead TCS (for TCPs) or lead CRS (for other cultural resources).

- Avoidance measures will be maintained and inspected by the environmental support team throughout the course of construction. The ECT lead will work with TCS and CRS leads to have monitors in place at the sites identified for monitoring (see attached Table 1).

- As part of Projects' kick-off meetings, and as needed throughout the construction of the Projects, construction crews will receive training and information on cultural resource constraints, avoidance measures, cultural sensitivities, discovery situation protocols, and on TCS' and CRS' roles on the environmental support team and in the Projects communication chain.

Pre-construction monitoring roles and responsibilities for each project include:

- Delineation in a chain of communication and responsibility (attached Table 2) between the primary NEER contact, the on-site construction manager, and the ECT lead to the lead TCS, the lead CRS, and the TCS and CRS's off-site supervisors.

- On-site communication and reporting will flow from the TCS and CRS upward to the ECT lead and from the ECT lead to the NEER on-site representative.

- Communication between the TCS or CRS and the ECT lead will include the on-site construction manager as appropriate (as identified in the attached Table 2 and the Monitoring Strategy and approach to Discovery).

- The ECT lead will coordinate with the lead TCS and lead CRS on the monthly, weekly, and daily monitoring effort and the number of TCS/CRS monitors that will be required to complete the work. It is anticipated that the ECT lead will develop a construction schedule as a part of the pre-construction communication for the Project. This construction schedule will help communicate the timing of the monitoring need to the

cultural team. It is anticipated this schedule will be updated as needed to provide the most updated information to the cultural team for planning purposes.

- TCS and CRS monitors will keep daily monitoring logs that will detail the date, the location of monitoring, the conditions of the day, monitoring start time, monitoring end time, the name of the construction team, the name of the monitors, monitoring activities completed, field decisions made in conjunction with the ECT lead and/or construction manager, outcomes of the decisions, and any further actions that will need to be completed as a part of the outcome or continuing action. The daily status reports will be collected by the lead CRS/TCS. The lead CRS will make an electronic copy of the record for use by the CRS and ECT lead each day. The hard copies will be retained by the TCS. The CRS/TCS will additionally provide all tracking information and status reports to their managing supervisors.

- The lead CRS and TCS will work with their managing supervisors to develop a list of contacts, including designated monitors and all employees or contractors that may serve in the monitoring pool across the project, who are authorized to potentially halt ground-disturbing activities in the event of a discovery or unanticipated impacts to TCP sites.

- ECT and NEER will have authorized representatives identified at each project site for coordinating and communicating discovery situations.

3. MONITORING STRATEGY

Monitoring is proposed during earth-moving activities conducted as part of the Projects (either during pre-construction preparation, construction, or post-construction) at locations where earth-moving specifically has the potential to impact significant cultural resources. Of the TCPs in the area of the Projects, NEER, in consultation with the SWO THPO, identified the TCPs listed in Table 1 (attached) as warranting monitoring during construction to ensure that avoidance measures are implemented effectively and inadvertent damage to TCPs does not occur. Other TCP and historic or archaeological sites, not listed in Table 1 and not identified for active monitoring, may warrant fencing or cordoning off to establish avoidance. All construction activities are subject to the discovery procedures outlined in the Discoveries During Construction section of this Plan. The discovery procedures outlined in that section specify steps to be followed for addressing situations when known significant cultural resources or previously unrecorded cultural resources are affected in an unanticipated manner by construction of the Projects.

The purpose of monitoring is to prevent inadvertent damage to identified cultural resources. Table 1 identifies the cultural resources where activities are to be monitored and the actions to be taken to minimize the potential for damage. Construction activities subject to monitoring may include, but are not limited to, traffic access, ground preparation, sediment and erosion control Best Management Practices (BMPs), structure construction, staging and storage, and use of heavy equipment for stringing cables.

During cultural resource inventories for the Projects, on-site collaboration was conducted among NEER, SWO THPO, HDR, and SWCA to place all facilities, access routes, and work areas of the Projects so as to avoid physical damage to archaeological features, stone features, and TCP

sites. As a consequence, the Projects have been planned to physically avoid all damage to all identified cultural resources in Table 1 within the inventory areas.

Monitoring construction activities at the selected locations (Table 1, attached) will be conducted to ensure that the avoidance measures established as a result of the cultural resources inventories are met. Monitoring of TCPs will be carried out by tribal monitors. Tribal monitoring may be performed during two separate phases:

1. Monitoring at identified areas of constraints during pre-construction to ensure NEER and NEER construction contractors have taken adequate preventative measures, such as enclosure fencing, protective matting for movement of equipment through sensitive resource areas when needed, or other methods, to keep construction traffic and personnel off sensitive resource areas that may otherwise be damaged, and to channel access traffic to avoid important site areas and TCP features; and
2. Monitoring during construction and post-construction at select locations where proximity of construction activities to TCPs warrants careful oversight to ensure avoidance measures are met.

All monitors will be required to complete Project safety and environmental orientation training before they are allowed in areas of active construction. Monitors must also be present at the start of the work day for daily Project briefings and morning safety meetings when construction will occur at the selected locations (see Table 1). Daily morning meetings are an opportunity for the monitor to coordinate with the ECT lead and construction personnel on anticipated areas of concern that may be encountered during operations. Failure of the monitor to be ready and available for assigned work for a given day will not prohibit construction from taking place at the monitoring location that day, provided that discovery procedures will be followed pursuant to the Discoveries During Construction section below and that effort is made by all parties to resolve the monitoring lapse moving forward.

The NEER representative and the Construction Contractor will ensure that at least 48 hours prior to the initiation of construction activities at monitoring locations in Table 1, if possible, the Construction Manager or NEER's representative will notify the lead TCS of the proposed schedule of activities and start times (time of the morning Project meetings). The lead TCS will coordinate with the Construction Manager or designated Project representative on the proposed schedule, as necessary.

Each monitor will follow the appropriate construction crew to each assigned monitoring location. If a TCS does not show-up to monitor, on-site construction will start and the work will be completed in a manner to avoid physical impact to NRHP-eligible cultural resources, and the situation (lack of monitor and outcomes of avoidance of cultural resource concerns) will be documented by the ECT lead or lead construction manager. If the TCS decides to leave the site, the TCS will inform the ECT lead or, in absence of the ECT lead, the on-site Construction Manager.

The Construction Manager and/or ECT lead will be responsible for incorporating monitoring at required locations with all other expected daily construction activities. Construction may proceed at a predetermined location without a TCS monitoring if the TCS determines and documents that

monitoring is not necessary based upon the Project's preventative measures and previous information for the location. If the TCS determines that monitoring is not necessary, the TCS will provide written notification to the ECT lead or, in absence of the ECT lead, the on-site Construction Manager.

Upon arrival at each specific monitoring location, the TCS will meet with the ECT lead or on-site construction crew lead to brief construction personnel about areas to be avoided and in concert with ECT lead or on-site construction crew lead complete any necessary avoidance measure augmentations. Any conflicts should be forwarded to the ECT lead and/or NEER representative for resolution.

If physical damage to the cultural resource cannot be avoided by construction activities to the satisfaction of the TCS, they will notify the ECT lead, Construction Manager, and/or NEER's representative, who will have work stopped in the vicinity of the threatened cultural resource and will implement the procedures specified in the Discoveries During Construction section of this Plan. If avoidance is successful, the TCS will complete a summary verification of the effectiveness of the avoidance effort.

The TCS will complete a daily log with notes and photographs of monitored locations. The daily log will be summarized for a daily status report from each monitor for the lead CRS or TCS to convey to the ECT lead. The daily log will document all observations and outcomes of monitored locations as specified under the Roles and Responsibilities in Pre-Construction Coordination and Monitoring section above. Status reports will be communicated daily to the monitors' managing supervisors as well.

4. DISCOVERIES DURING CONSTRUCTION

The following discovery procedures specify the steps to be taken whenever monitors or construction personnel encounter or suspect the presence of archaeological and/or TCP remains vulnerable to Project-related construction damage. A discovery occurs when previously unidentified archaeological or TCP remains are encountered or a previously identified significant cultural resource is affected in an unanticipated manner. Discoveries could arise during any phase of Project construction. Discoveries occur when archaeological and TCP remains such as bone, pottery, or flaked or ground stone artifacts, stone features, buried historic debris, foundations, and other similar types of artifacts are encountered or are suspected, and are vulnerable to or are damaged by construction-related activities. When such discoveries occur, all Project personnel are obligated to cease all Project activities in the vicinity of the discovery (typically within 100 feet), notify appropriate personnel (ECT leads and Construction Managers) of the event and circumstances, and await further instruction prior to proceeding with activities that may affect the discovered remains.

Prior to the initiation of Project construction, NEER will determine if the construction personnel have adequate training to identify discoveries and that they will brief all construction personnel of the necessity to report all discoveries, or suspected discoveries, of archaeological, historic, or human remains encountered during Project construction. Field Personnel will be trained under NEER direction in the procedures contained in this Plan. The training will include:

- sensitivity training regarding TCP resources and working with tribal members (a qualified tribal representative will provide this training at the initial kick-off meeting and will provide periodic updates as needed during weekly construction meetings);
- the adherence of physical avoidance measures such as temporary site rope-off fencing and flagging at predetermined TCP sites;
- the protection of discoveries until they can be properly evaluated by a designated tribal representative or archaeologist;
- the need to treat any human skeletal remains with dignity and proper decorum;
- the notification of appropriate personnel in the event of a discovery;
- the need to report discoveries and unanticipated effects to TCP sites in a timely manner, as immediately as possible and always within the same day following identification;
- the need to stop work at discoveries until they are properly addressed per this Plan;
- the protocol for stop work; and
- the communication chain for stoppage and restart notifications for construction.

A. **DISCOVERIES ABSENT HUMAN REMAINS**: A discovery that does not include human remains occurs when a previously recorded cultural resource has been impacted by a Project in an unanticipated manner or when a previously unidentified cultural resource is encountered that has been or is placed at risk of being impacted by Project activities. NEER and all contractors on the Projects will adhere to the following procedures (also outlined at Figure 1):

a. All Project activities that may disturb the discovery will cease within 100 feet (or greater as necessary) to avoid further damage to the resource.
b. The contractor will immediately notify the Project representative (Table 2, attached), the TCS maintaining oversight of the project (Table 2), and CRS—an archaeologist who meets the Secretary of Interior's Qualification Standards—of the discovery by phone, email, or text message. The CRS, in concert with the TCS as applicable, will further advise the construction personnel on how to protect the discovery from further harm or damage.
c. Within 48 hours of notification of a possible discovery situation, the CRS, in concert with the TCS as applicable, will investigate the discovery and validate whether it is a discovered cultural resource.
d. If the CRS, and TCS as applicable, determines the discovery is not a cultural resource, the CRS, and TCS as applicable, will document his/her findings in a brief memorandum to the reviewing agency with jurisdiction, if any, NEER, SWO THPO and recommend to the Project representative and/or Construction Manager that construction resume. The Project representative, Construction Manager, and/or responsible agency may authorize resumption of construction upon the CRS's and TCS's verbal description and

recommendation to proceed and prior to receipt of the CRS's and TCS's memorandum as applicable.

e. If the CRS, in concert with the TCS as applicable, determines the discovery is valid, the Cultural Resource Specialist and TCS will notify NEER, SWO THPO, and any agency with jurisdiction by phone, or electronically, followed with written notice, of preliminary findings and proposed next steps.

f. The CRS and TCS may recommend the NRHP eligibility of the discovery—pending any consultation with the State Historic Preservation Officer (SHPO) on a final eligibility determination—and advise on appropriate treatment, either through avoidance, additional study, or other measure for NRHP-eligible discoveries.

   i. An on-site meeting may be requested by the consulting parties to assess the discovery and reach consensus on appropriate avoidance or treatment. This meeting shall occur within 96 hours after the CRS's and or TCS's notification.

g. The CRS, in concert with the TCS as applicable, will prepare a basic avoidance or treatment plan addressing the cultural values of the discovery and provide it by electronic mail to the consulting parties for review and comment within 48 hours of discovery validation and/or the onsite meeting. Upon acceptance of the avoidance or treatment plan by SHPO, where the discovery is found to represent an NRHP-eligible cultural resource or a resource unevaluated as to its NRHP eligibility, the NEER representative shall ensure that the treatment plan is implemented.

h. Construction activities may be resumed when any required fieldwork has been completed and the CRS, in concert with the TCS as applicable, notifies by email applicable parties of its completion.

i. A report following SHPO reporting standards detailing the results of treatment of the discovery shall be prepared by the CRS and TCS as applicable. The CRS shall submit electronic and paper copies of the report to each of the consulting parties (qualified SHPO, THPO, and NEER staff) within approximately one month of completion of any fieldwork and shall complete any other requirements pertaining to the discovery, including the final disposition of or repository for any displaced or collected materials and the records documenting them to ensure their proper handling and ultimate placement on completion of project work. No treatment plan will be implemented or artifacts collected from any lands without the landowner's prior consent. Any requirements pertaining to the discovery that have not been completed when the report is submitted to the consulting parties shall be reported to the consulting parties upon completion as an addendum to the original report.

B. **DISCOVERIES INCLUDING HUMAN REMAINS**: In the event that human remains are discovered, or suspected, the NEER and all contractors on the Projects will adhere to the following procedures as required by South Dakota Codified Law, Title 34, Chapter 27, *Cemeteries and Burial Records*, for such discoveries in South Dakota. The steps are outlined on Figure 2.

a. All activities that may disturb the discovery shall cease within a minimum of 100 feet of the find or to a greater distance as appropriate, and the discovery location will be secured from further disturbance or possible vandalism with temporary fencing and signage as appropriate. In addition, the TCS as applicable, and CRS may decide to engage an additional specialist to determine the context of the discovery. Nothing should be removed or disturbed and no additional digging around the find spot shall be undertaken by anyone. The name and contact information for the individual who made the discovery must be provided to law enforcement officials.
b. Within 48 hours of the confirmation of human remains, the Project representative shall contact local law enforcement with jurisdiction of the area (Table 3, attached) and the State Archaeologist of South Dakota, as appropriate. Law enforcement will determine whether the discovery is human or non-human or associated with a crime scene or missing person.
c. The contractor will immediately notify the Project representative, CRS, and TCS as applicable of the discovery (Table 2, attached). The CRS and TCS as applicable will help the construction personnel and the Project representative protect the discovery from harm or damage by directing construction activities and personnel away from the discovery and erecting temporary fencing and signage as appropriate.
d. If local law enforcement determines the discovery to be a crime scene, they will complete their procedures to document the site and manage the location, including contacting the coroner and the landowner.
e. If local law enforcement determines the discovery to not be a crime scene they will relinquish responsibility to the South Dakota State Archaeologist, as appropriate. The CRS and TCS as applicable will work with the State Archaeologist to help complete appropriate steps. The CRS and TCS as applicable will coordinate with the Project representative and THPO, as appropriate. After a review of all concerns (from consulting parties) and an evaluation of the discovery, the state archaeologist will set forth procedures to mitigate the disturbance to the discovery as needed.
f. Upon fulfillment of any fieldwork required and with the written approval to proceed by the appropriate state official, the Project representative may allow construction to resume, in accordance with any agreed upon remaining requirements. Written approval may be transmitted electronically.

5. SUMMARY REPORT(S)

Upon completion of monitoring and any treatments that may have been conducted under discovery procedures, NEER will direct the preparation of a Summary Report or Reports on any new cultural resources recorded as discoveries. These reports are to be submitted for the information of consulting Tribes, through SWO, and to SHPO. The Summary Report or Reports will include a description of discovery situations that occurred for previously unidentified cultural resources and outcomes of the address of these discoveries. The Summary Report or

Reports will also include a description of the actions taken to treat or assure avoidance of cultural resources under the discovery procedures. The report(s) will the specify where any displaced or collected materials are curated or to be curated (including if returned to the land owner or never removed from the property) and, also, will specify the location where the records documenting materials are filed. The report(s) will be distributed within three months of completion of Project construction or at logical intervals based on the completion of the activity on the Projects (such as at end of transmission line construction and turbine array construction for each Project).

Figure 1: Discovery Identification Procedures Absent of Human Remains

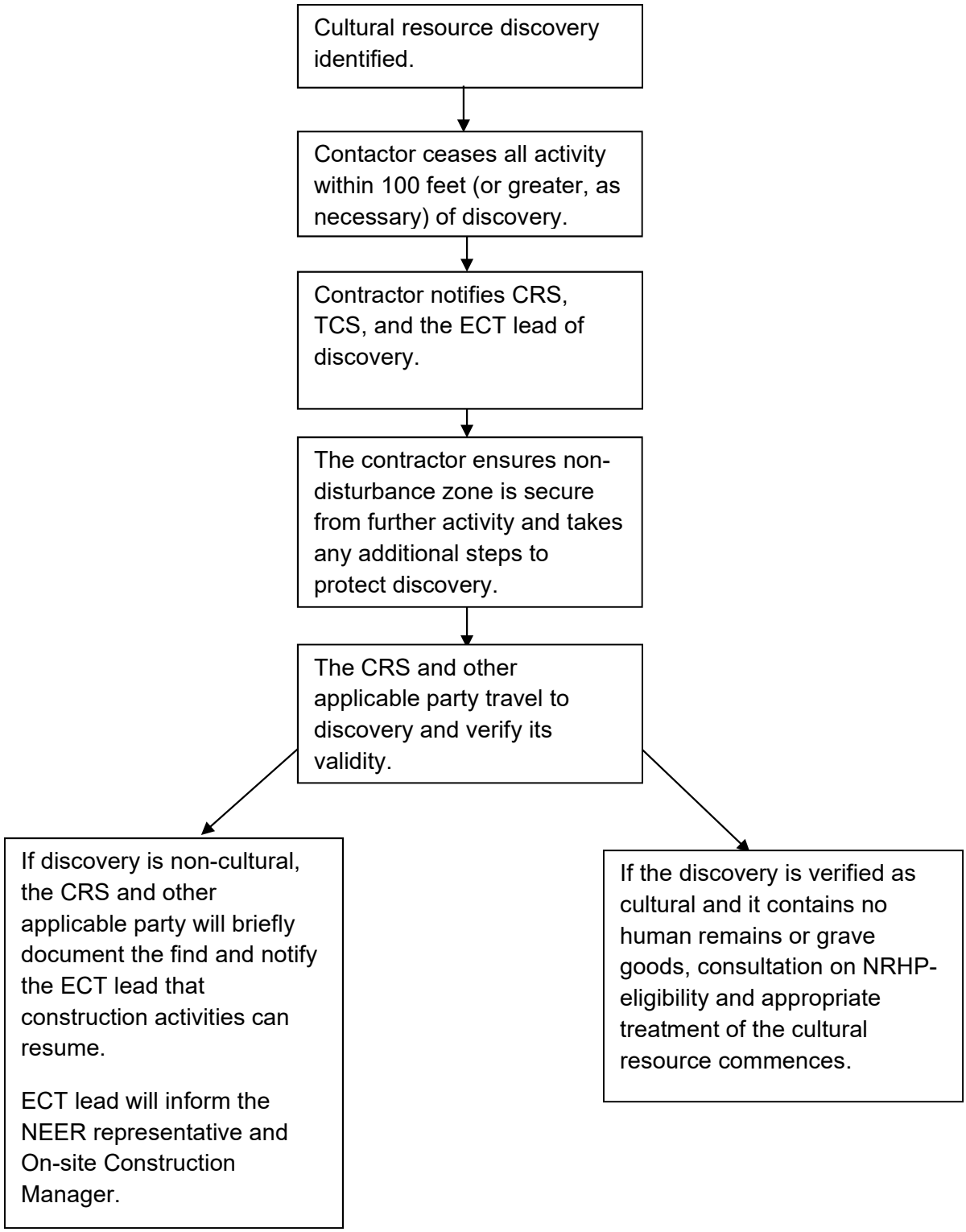


Figure 2: Discovery Identification Procedures That Include Human Remains

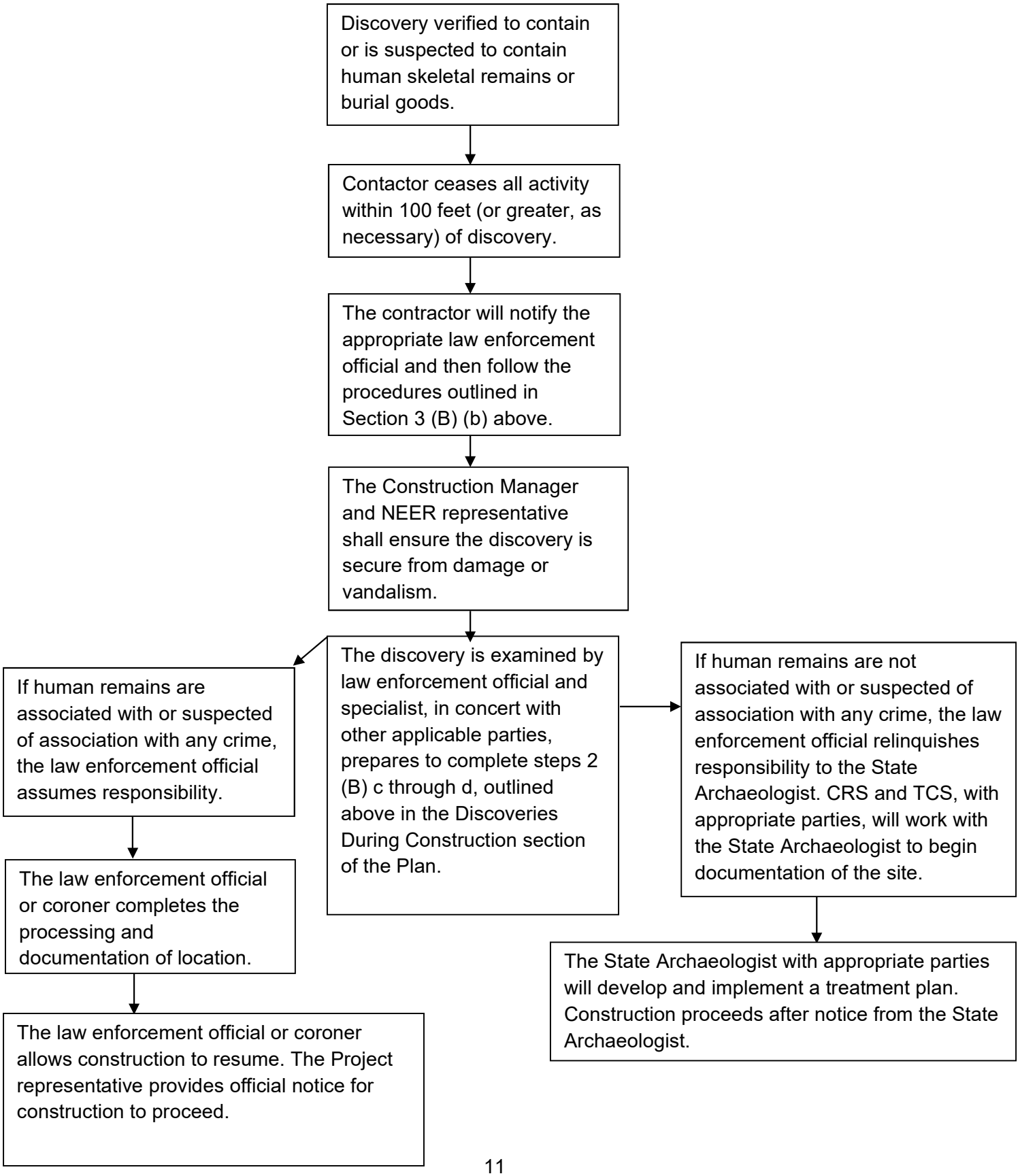


Table 1. Cultural Resources Treatment Measures and Monitoring Locations

Report Region	(if any)	(field)	SHPO Number	Required
CRII Array Tribal Report - Addendum 1		ARII787-001	39CD0186	Avoid impacts
CRII Array Tribal Report - Addendum 1		CLIIB-027	39CD0193	Avoid impacts
CRII Array Tribal Report - Primary		II-116-S1	(II-116-S1)	Avoid impacts
CRII Array Tribal Report - Addendum 1		CLIIG-RR-02	(CLIIG-RR-02	Avoid impacts
Gen-Tie Tribal Report - Primary		GTIE-S-1001	TCP-CD-0014	Avoid impacts
Gen-Tie Tribal Report - Primary		GTIE-S-1002	TCP-CD-0015	Avoid impacts
Gen-Tie Tribal Report - Primary	Collection Line, Crane Path	GTIE-S-1004	TCP-CD-0016	Fencing and Monitoring
Gen-Tie Tribal Report - Primary		GTIE-S-1003	TCP-CD-0017	Avoid impacts
Gen-Tie Tribal Report - Primary		GTIE-S-1005	TCP-CD-0018	Avoid impacts
Gen-Tie Tribal Report - Primary		GTIE-S-1007	TCP-CD-0019	Avoid impacts
Gen-Tie Tribal Report - Primary		GTIE-S-1006	TCP-CD-0020	Avoid impacts
Gen-Tie Tribal Report - Primary		GTIE-S-1029	TCP-CD-0021	Avoid impacts
Gen-Tie Tribal Report - Primary		GTIE-S-1030	TCP-CD-0022	Avoid impacts
Gen-Tie Tribal Report - Primary		GTIE-S-1028	TCP-CD-0023	Avoid impacts
Gen-Tie Tribal Report - Primary		GTIE-S-1031	TCP-CD-0024	Avoid impacts
Gen-Tie Tribal Report - Primary		GTIE-S-1032	TCP-CD-0025	Avoid impacts
Gen-Tie Tribal Report - Primary		GTIE-S-1026	TCP-CD-0026	Avoid impacts
Gen-Tie Tribal Report - Primary		GTIE-S-1024	TCP-CD-0027	Avoid impacts
Gen-Tie Tribal Report - Primary		GTIE-S-1027	TCP-CD-0028	Avoid impacts
Gen-Tie Tribal Report - Primary		GTIE-S-1025	TCP-CD-0029	Avoid impacts
Gen-Tie Tribal Report - Primary		GTIE-S-1033	TCP-CD-0030	Avoid impacts
Gen-Tie Tribal Report - Primary		GTIE-S-1034	TCP-CD-0031	Avoid impacts
Gen-Tie Tribal Report - Primary		GTIE-S-1023	TCP-CD-0032	Avoid impacts
Gen-Tie Tribal Report - Primary		GTIE-S-1022	TCP-CD-0033	Avoid impacts
Gen-Tie Tribal Report - Primary		GTIE-S-1020	TCP-CD-0034	Avoid impacts
Gen-Tie Tribal Report - Primary		GTIE-S-1019	TCP-CD-0035	Avoid impacts
Gen-Tie Tribal Report - Primary		GTIE-S-1018	TCP-CD-0036	Avoid impacts
Gen-Tie Tribal Report - Primary		GTIE-S-008	TCP-CD-0037	Avoid impacts
Gen-Tie Tribal Report - Primary		GTIE-S-009	TCP-CD-0038	Avoid impacts
Gen-Tie Tribal Report - Primary		GTIE-S-010	TCP-CD-0039	Avoid impacts
Gen-Tie Tribal Report - Primary		GTIE-S-012	TCP-CD-0040	Avoid impacts
Gen-Tie Tribal Report - Primary		GTIE-S-011	TCP-CD-0041	Avoid impacts
Gen-Tie Tribal Report - Primary		GTIE-S-013	TCP-CD-0042	Avoid impacts
Gen-Tie Tribal Report - Primary		GTIE-S-014	TCP-CD-0043	Avoid impacts
Gen-Tie Tribal Report - Primary	Collection Line	GTIE-S-015	TCP-CD-0044	Fencing and Monitoring
Gen-Tie Tribal Report - Primary		GTIE-S-016	TCP-CD-0045	Avoid impacts
Gen-Tie Tribal Report - Primary		GTIE-S-018	TCP-CD-0046	Avoid impacts
Gen-Tie Tribal Report - Primary		GTIE-S-019	TCP-CD-0047	Avoid impacts
Gen-Tie Tribal Report - Primary		GTIE2-S-050	TCP-CD-0048	Avoid impacts
Gen-Tie Tribal Report - Primary		GTIE2-S-049	TCP-CD-0049	Avoid impacts
Gen-Tie Tribal Report - Primary		GTIE2-S-048	TCP-CD-0050	Avoid impacts
Gen-Tie Tribal Report - Primary		GTIE2-S-046	TCP-CD-0051	Avoid impacts
Gen-Tie Tribal Report - Primary		GTIE2-S-047	TCP-CD-0052	Avoid impacts
Gen-Tie Tribal Report - Primary	Crane Path	GTIE-S-017	TCP-CD-0053	Fencing and Monitoring
Gen-Tie Tribal Report - Primary		GTIE2-S-061	TCP-CD-0054	Avoid impacts
Gen-Tie Tribal Report - Primary		GTIE2-S-062	TCP-CD-0055	Avoid impacts

Gen-Tie Tribal Report - Primary		GTIE2-S-064	TCP-CD-0056	Avoid impacts
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Gen-Tie Tribal Report - Primary		GTIE2-S-029	TCP-CD-0058	Avoid impacts
Gen-Tie Tribal Report - Primary		GTIE-S-020	TCP-CD-0059	Avoid impacts
Gen-Tie Tribal Report - Primary		GTIE2-S-031	TCP-CD-0060	Avoid impacts
Gen-Tie Tribal Report - Primary		II-033-S7	TCP-CD-0061	Avoid impacts
Gen-Tie Tribal Report - Primary		GTIE2-S-032	TCP-CD-0062	Avoid impacts
Gen-Tie Tribal Report - Primary		GTIE2-S-033	TCP-CD-0063	Avoid impacts
Gen-Tie Tribal Report - Primary		GTIE2-S-034	TCP-CD-0064	Avoid impacts
Gen-Tie Tribal Report - Primary		GTIE-S-021	TCP-CD-0065	Avoid impacts
Gen-Tie Tribal Report - Primary		GTIE2-S-035	TCP-CD-0066	Avoid impacts
Gen-Tie Tribal Report - Primary		GTIE2-S-037	TCP-CD-0067	Avoid impacts
Gen-Tie Tribal Report - Primary		GTIE-S-023	TCP-CD-0068	Avoid impacts
Gen-Tie Tribal Report - Primary		GTIE-S-022	TCP-CD-0069	Avoid impacts
Gen-Tie Tribal Report - Primary		GTIE2-S-036	TCP-CD-0070	Avoid impacts
Gen-Tie Tribal Report - Primary		GTIE2-S-041	TCP-CD-0071	Avoid impacts
Gen-Tie Tribal Report - Primary		GTIE2-S-055	TCP-CD-0072	Avoid impacts
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Gen-Tie Tribal Report - Primary		GTIE2-S-051	TCP-CD-0074	Avoid impacts
Gen-Tie Tribal Report - Primary		GTIE2-S-040	TCP-CD-0075	Avoid impacts
Gen-Tie Tribal Report - Primary		GTIE2-S-038	TCP-CD-0076	Avoid impacts
Gen-Tie Tribal Report - Primary		GTIE2-S-057	TCP-CD-0077	Avoid impacts
Gen-Tie Tribal Report - Primary		GTIE-S-024	TCP-CD-0078	Avoid impacts
Gen-Tie Tribal Report - Primary		GTIE2-S-039	TCP-CD-0079	Avoid impacts
Gen-Tie Tribal Report - Primary		GTIE-S-025	TCP-CD-0080	Avoid impacts
Gen-Tie Tribal Report - Primary		GTIE-S-026	TCP-CD-0081	Avoid impacts
Gen-Tie Tribal Report - Primary		GTIE-S-027	TCP-CD-0082	Avoid impacts
Gen-Tie Tribal Report - Primary		GTIE2-S-052	TCP-CD-0083	Avoid impacts
Gen-Tie Tribal Report - Primary		GTIE2-S-053	TCP-CD-0084	Avoid impacts
Gen-Tie Tribal Report - Primary		GTIE2-S-059	TCP-CD-0085	Avoid impacts
Gen-Tie Tribal Report - Primary		GTIE2-S-043	TCP-CD-0086	Avoid impacts
Gen-Tie Tribal Report - Primary		GTIE-S-028	TCP-CD-0087	Avoid impacts
Gen-Tie Tribal Report - Primary		GTIE2-S-058	TCP-CD-0088	Avoid impacts
Gen-Tie Tribal Report - Primary		GTIE2-S-044	TCP-CD-0089	Avoid impacts
Gen-Tie Tribal Report - Primary		GTIE2-S-042	TCP-CD-0090	Avoid impacts
Gen-Tie Tribal Report - Primary		GTIE2-S-060	TCP-CD-0091	Avoid impacts
Gen-Tie Tribal Report - Primary		GTIE2-S-045	TCP-CD-0092	Avoid impacts
Gen-Tie Tribal Report - Primary		GTIE-S-040	TCP-CD-0093	Avoid impacts
Gen-Tie Tribal Report - Primary		GTIE-S-039	TCP-CD-0094	Avoid impacts
Gen-Tie Tribal Report - Primary		GTIE-S-038	TCP-CD-0095	Avoid impacts
Gen-Tie Tribal Report - Primary		GTIE2-S-027	TCP-CD-0096	Avoid impacts
Gen-Tie Tribal Report - Primary		GTIE2-S-026	TCP-CD-0097	Avoid impacts
Gen-Tie Tribal Report - Primary		GTIE-S-037	TCP-CD-0098	Avoid impacts
Gen-Tie Tribal Report - Primary		GTIE2-S-025	TCP-CD-0099	Avoid impacts
Gen-Tie Tribal Report - Primary		GTIE-S-036	TCP-CD-0100	Avoid impacts
Gen-Tie Tribal Report - Primary		GTIE-S-035	TCP-CD-0101	Avoid impacts
Gen-Tie Tribal Report - Primary		GTIE2-S-023	TCP-CD-0102	Avoid impacts

Gen-Tie Tribal Report - Primary		GTIE2-S-024	TCP-CD-0103	Avoid impacts
Gen-Tie Tribal Report - Primary		GTIE-S-034	TCP-CD-0104	Avoid impacts
Gen-Tie Tribal Report - Primary		GTIE2-S-022	TCP-CD-0105	Avoid impacts
Gen-Tie Tribal Report - Primary		GTIE-S-031	TCP-CD-0106	Avoid impacts
Gen-Tie Tribal Report - Primary		GTIE-S-030	TCP-CD-0107	Avoid impacts
Gen-Tie Tribal Report - Primary		GTIE-S-029	TCP-CD-0108	Avoid impacts
Gen-Tie Tribal Report - Primary		GTIE2-S-021	TCP-CD-0109	Avoid impacts
Gen-Tie Tribal Report - Primary		GTIE-S-033	TCP-CD-0110	Avoid impacts
Gen-Tie Tribal Report - Primary		GTIE-S-032	TCP-CD-0111	Avoid impacts
Gen-Tie Tribal Report - Primary		GTIE2-S-020	TCP-CD-0112	Avoid impacts
Gen-Tie Tribal Report - Primary		GTIE2-S-019	TCP-CD-0113	Avoid impacts
Gen-Tie Tribal Report - Primary		GTIE2-S-002	TCP-CD-0114	Avoid impacts
Gen-Tie Tribal Report - Primary		GTIE2-S-054	TCP-CD-0115	Avoid impacts
Gen-Tie Tribal Report - Primary		GTIE2-S-003	TCP-CD-0116	Avoid impacts
Gen-Tie Tribal Report - Primary		GTIE2-S-001	TCP-CD-0117	Avoid impacts
Gen-Tie Tribal Report - Primary		GTIE2-S-005	TCP-CD-0118	Avoid impacts
Gen-Tie Tribal Report - Primary		GTIE-S-041	TCP-CD-0119	Avoid impacts
Gen-Tie Tribal Report - Primary		GTIE2-S-006	TCP-CD-0120	Avoid impacts
Gen-Tie Tribal Report - Primary		GTIE-S-042	TCP-CD-0121	Avoid impacts
Gen-Tie Tribal Report - Primary		GTIE2-S-007	TCP-CD-0122	Avoid impacts
Gen-Tie Tribal Report - Primary		GTIE2-S-008	TCP-CD-0123	Avoid impacts
Gen-Tie Tribal Report - Primary		GTIE-S-043	TCP-CD-0124	Avoid impacts
Gen-Tie Tribal Report - Primary		GTIE-S-045	TCP-CD-0125	Avoid impacts
Gen-Tie Tribal Report - Primary		GTIE-S-046	TCP-CD-0126	Avoid impacts
Gen-Tie Tribal Report - Primary		GTIE-S-044	TCP-CD-0127	Avoid impacts
Gen-Tie Tribal Report - Primary		GTIE-S-048	TCP-CD-0128	Avoid impacts
Gen-Tie Tribal Report - Primary		GTIE-S-047	TCP-CD-0129	Avoid impacts
Gen-Tie Tribal Report - Primary		GTIE-S-049	TCP-CD-0130	Avoid impacts
Gen-Tie Tribal Report - Primary		GTIE-S-050	TCP-CD-0131	Avoid impacts
Gen-Tie Tribal Report - Primary		GTIE2-S-009	TCP-CD-0132	Avoid impacts
Gen-Tie Tribal Report - Primary		GTIE2-S-010	TCP-CD-0133	Avoid impacts
Gen-Tie Tribal Report - Primary		GTIE2-S-011	TCP-CD-0134	Avoid impacts
Gen-Tie Tribal Report - Primary	Turbines , Access Roads	650-01	TCP-CD-0135	Fencing and Monitoring
Gen-Tie Tribal Report - Primary		GTIE2-S-012	TCP-CD-0136	Avoid impacts
Gen-Tie Tribal Report - Primary		GTIE2-S-018	TCP-CD-0137	Avoid impacts
Gen-Tie Tribal Report - Primary		GTIE2-S-014	TCP-CD-0138	Avoid impacts
Gen-Tie Tribal Report - Primary		GTIE2-S-013	TCP-CD-0139	Avoid impacts
Gen-Tie Tribal Report - Primary		GTIE2-S-016	TCP-CD-0140	Avoid impacts
Gen-Tie Tribal Report - Primary		GTIE2-S-015	TCP-CD-0141	Avoid impacts
Gen-Tie Tribal Report - Primary		GTIE2-S-017	TCP-CD-0142	Avoid impacts
CRII Array Tribal Report - Primary	Turbines , Access Roads	400-03	TCP-CD-0318	Fencing and Monitoring
CRII Array Tribal Report - Primary	Access Roads	400-07	TCP-CD-0319	Fencing and Monitoring
CRII Array Tribal Report - Primary	Turbines	400-04	TCP-CD-0320	Fencing and Monitoring
CRII Array Tribal Report - Primary	Turbines	400-05	TCP-CD-0321	Fencing and Monitoring
CRII Array Tribal Report - Primary		II-ALT1-S1	TCP-CD-0322	Avoid impacts
CRII Array Tribal Report - Primary		II-ALT1-S2	TCP-CD-0323	Avoid impacts
CRII Array Tribal Report - Primary	Access Roads	427-01	TCP-CD-0324	Fencing and Monitoring

CRII Array Tribal Report - Primary	Turbines , Access Roads	427-02	TCP-CD-0325	Fencing and Monitoring
CRII Array Tribal Report - Primary	Turbines , Access Roads	427-03	TCP-CD-0326	Fencing and Monitoring
CRII Array Tribal Report - Primary		529-03	TCP-CD-0327	Avoid impacts
CRII Array Tribal Report - Primary	Turbines , Access Roads	529-01	TCP-CD-0328	Fencing and Monitoring
CRII Array Tribal Report - Primary		529-04	TCP-CD-0329	Avoid impacts
CRII Array Tribal Report - Primary		529-05	TCP-CD-0330	Avoid impacts
CRII Array Tribal Report - Primary	Collection Lines	529-06	TCP-CD-0331	Fencing and Monitoring
CRII Array Tribal Report - Primary	Turbines , Access Roads	424-01	TCP-CD-0332	Fencing and Monitoring
CRII Array Tribal Report - Primary		424-02	TCP-CD-0333	Avoid impacts
CRII Array Tribal Report - Primary		II-030-S1	TCP-CD-0334	Avoid impacts
CRII Array Tribal Report - Primary		II-030-S2	TCP-CD-0335	Avoid impacts
CRII Array Tribal Report - Primary	Turbines , Access Roads	II-033-S5	TCP-CD-0336	Fencing and Monitoring
CRII Array Tribal Report - Primary		II-033-S3	TCP-CD-0337	Avoid impacts
CRII Array Tribal Report - Primary	Turbines , Access Roads	II-033-S4	TCP-CD-0338	Fencing and Monitoring
CRII Array Tribal Report - Primary	Turbines	685-01	TCP-CD-0339	Fencing and Monitoring
CRII Array Tribal Report - Primary		II-033-S2	TCP-CD-0340	Avoid impacts
CRII Array Tribal Report - Primary		II-033-S1	TCP-CD-0341	Avoid impacts
CRII Array Tribal Report - Primary		II-033-S6	TCP-CD-0342	Avoid impacts
CRII Array Tribal Report - Primary		685-02	TCP-CD-0343	Avoid impacts
CRII Array Tribal Report - Primary	Turbines	685-03	TCP-CD-0344	Fencing and Monitoring
CRII Array Tribal Report - Primary	Turbines	685-04	TCP-CD-0345	Fencing and Monitoring
CRII Array Tribal Report - Primary	Turbines	685-06	TCP-CD-0346	Fencing and Monitoring
CRII Array Tribal Report - Primary	Turbines	685-05	TCP-CD-0347	Fencing and Monitoring
CRII Array Tribal Report - Primary		421-08	TCP-CD-0348	Avoid impacts
CRII Array Tribal Report - Primary		421-03	TCP-CD-0349	Avoid impacts
CRII Array Tribal Report - Primary		421-07	TCP-CD-0350	Avoid impacts
CRII Array Tribal Report - Primary		421-02	TCP-CD-0351	Avoid impacts
CRII Array Tribal Report - Primary		421-05	TCP-CD-0352	Avoid impacts
CRII Array Tribal Report - Primary		421-04	TCP-CD-0353	Avoid impacts
CRII Array Tribal Report - Primary		421-06	TCP-CD-0354	Avoid impacts
CRII Array Tribal Report - Primary		421-01	TCP-CD-0355	Avoid impacts
CRII Array Tribal Report - Primary	Collection Line	II-041-S2	TCP-CD-0356	Fencing and Monitoring
CRII Array Tribal Report - Primary		643-01	TCP-CD-0357	Avoid impacts
CRII Array Tribal Report - Primary		II-041-S3	TCP-CD-0358	Avoid impacts
CRII Array Tribal Report - Primary		643-04	TCP-CD-0359	Avoid impacts
CRII Array Tribal Report - Primary	Collection Lines	II-041-S1	TCP-CD-0360	Fencing and Monitoring
CRII Array Tribal Report - Primary		643-03	TCP-CD-0361	Avoid impacts
CRII Array Tribal Report - Primary		643-05	TCP-CD-0362	Avoid impacts
CRII Array Tribal Report - Primary		II-041-S4	TCP-CD-0363	Avoid impacts
CRII Array Tribal Report - Primary		II-041-S6	TCP-CD-0364	Avoid impacts
CRII Array Tribal Report - Primary		II-042-S1	TCP-CD-0365	Avoid impacts
CRII Array Tribal Report - Primary	Turbines	682-01	TCP-CD-0366	Fencing and Monitoring
CRII Array Tribal Report - Primary	Collection Line, Turbines	682-04	TCP-CD-0367	Fencing and Monitoring
CRII Array Tribal Report - Primary	Turbines	682-03	TCP-CD-0368	Fencing and Monitoring
CRII Array Tribal Report - Primary	Collection Line, Turbines	682-05	TCP-CD-0369	Fencing and Monitoring
CRII Array Tribal Report - Primary		652-03	TCP-CD-0370	Avoid impacts
CRII Array Tribal Report - Primary		652-05	TCP-CD-0371	Avoid impacts

CRII Array Tribal Report - Primary		652-01	TCP-CD-0372	Avoid impacts
CRII Array Tribal Report - Primary	Turbines	652-02	TCP-CD-0373	Fencing and Monitoring
CRII Array Tribal Report - Primary	Turbines , Access Roads	652-07	TCP-CD-0374	Fencing and Monitoring
CRII Array Tribal Report - Primary	Access Roads	652-06	TCP-CD-0375	Fencing and Monitoring
CRII Array Tribal Report - Primary	Turbines	689-01	TCP-CD-0376	Fencing and Monitoring
CRII Array Tribal Report - Primary	Turbines	689-02	TCP-CD-0377	Fencing and Monitoring
CRII Array Tribal Report - Primary	Collection Line, Turbines	453-03	TCP-CD-0378	Fencing and Monitoring
CRII Array Tribal Report - Primary	Collection Line, Turbines	453-07	TCP-CD-0379	Fencing and Monitoring
CRII Array Tribal Report - Primary	Collection Line	453-02	TCP-CD-0380	Fencing and Monitoring
CRII Array Tribal Report - Primary	Collection Line, Turbines	453-14	TCP-CD-0381	Fencing and Monitoring
CRII Array Tribal Report - Primary		453-12	TCP-CD-0382	Avoid impacts
CRII Array Tribal Report - Primary	Turbines	453-04	TCP-CD-0383	Fencing and Monitoring
CRII Array Tribal Report - Primary	Turbines	453-08	TCP-CD-0384	Fencing and Monitoring
CRII Array Tribal Report - Primary	Turbines	453-09	TCP-CD-0385	Fencing and Monitoring
CRII Array Tribal Report - Primary		453-05	TCP-CD-0386	Avoid impacts
CRII Array Tribal Report - Primary		453-10	TCP-CD-0387	Avoid impacts
CRII Array Tribal Report - Primary		453-06	TCP-CD-0388	Avoid impacts
CRII Array Tribal Report - Primary		450-01	TCP-CD-0389	Avoid impacts
CRII Array Tribal Report - Primary		II-042-S2	TCP-CD-0390	Avoid impacts
CRII Array Tribal Report - Primary	Collection Line	719-01	TCP-CD-0407	Fencing and Monitoring
CRII Array Tribal Report - Primary		663-16	TCP-CD-0408	Avoid impacts
CRII Array Tribal Report - Primary	Turbines , Access Roads	529-02	TCP-CD-0409	Fencing and Monitoring
CRII Array Tribal Report - Primary	Turbines	682-02	TCP-CD-0410	Fencing and Monitoring
CRII Array Tribal Report - Primary		650-03	TCP-CD-0411	Avoid impacts
CRII Array Tribal Report - Primary		650-02	TCP-CD-0412	Avoid impacts
CRII Array Tribal Report - Primary	Collection Line	CLII265-01	TCP-CD-0413	Fencing and Monitoring
CRII Array Tribal Report - Primary		453-15	TCP-CD-0414	Avoid impacts
CRII Array Tribal Report - Addendum 1	Access Roads	AR610-02	TCP-CD-0445	Fencing and Monitoring
CRII Array Tribal Report - Addendum 1	Access Roads	AR610-03	TCP-CD-0446	Fencing and Monitoring
CRII Array Tribal Report - Addendum 1	Access Roads	AR326-01	TCP-CD-0456	Fencing and Monitoring
CRII Array Tribal Report - Addendum 1	Access Roads	AR326-02	TCP-CD-0457	Fencing and Monitoring
CRII Array Tribal Report - Addendum 1		ARII105-01	TCP-CD-0458	Avoid impacts
CRII Array Tribal Report - Addendum 1		ARII105-02	TCP-CD-0459	Avoid impacts
CRII Array Tribal Report - Addendum 1	Path	AR613-05	TCP-CD-0460	Fencing and Monitoring
CRII Array Tribal Report - Addendum 1	Crane Path	AR613-06	TCP-CD-0461	Fencing and Monitoring
CRII Array Tribal Report - Addendum 1	Path	AR613-03	TCP-CD-0462	Fencing and Monitoring
CRII Array Tribal Report - Addendum 1	Crane Path	AR613-02	TCP-CD-0463	Fencing and Monitoring
CRII Array Tribal Report - Addendum 1	Crane Path	AR613-04	TCP-CD-0464	Fencing and Monitoring
CRII Array Tribal Report - Addendum 1		AR613-01	TCP-CD-0465	Avoid impacts
CRII Array Tribal Report - Addendum 1	Access Roads	ARII129-02	TCP-CD-0466	Fencing and Monitoring
CRII Array Tribal Report - Addendum 1		AR611-04	TCP-CD-0467	Avoid impacts
CRII Array Tribal Report - Addendum 1		AR611-03	TCP-CD-0468	Avoid impacts
CRII Array Tribal Report - Addendum 1	Access Roads	AR601-01	TCP-CD-0469	Fencing and Monitoring
CRII Array Tribal Report - Addendum 1	Access Roads	AR601-02	TCP-CD-0470	Fencing and Monitoring
CRII Array Tribal Report - Addendum 1	Access Roads	AR151-01	TCP-CD-0471	Fencing and Monitoring
CRII Array Tribal Report - Addendum 1	Access Roads	AR151-02	TCP-CD-0472	Fencing and Monitoring
CRII Array Tribal Report - Addendum 1	Access Roads	AR151-03	TCP-CD-0473	Fencing and Monitoring

Gen-Tie Tribal Report - Addendum 1		GTB-015	TCP-CD-0564	Avoid impacts
Gen-Tie Tribal Report - Addendum 1		GTB-016	TCP-CD-0565	Avoid impacts
Gen-Tie Tribal Report - Addendum 1		GTB-014	TCP-CD-0566	Avoid impacts
Gen-Tie Tribal Report - Addendum 1		GTB-005	TCP-CD-0567	Avoid impacts
Gen-Tie Tribal Report - Addendum 1		GTB-007	TCP-CD-0568	Avoid impacts
Gen-Tie Tribal Report - Addendum 1		GTB-009	TCP-CD-0569	Avoid impacts
Gen-Tie Tribal Report - Addendum 1		GTB-011	TCP-CD-0570	Avoid impacts
Gen-Tie Tribal Report - Addendum 1		GTB-013	TCP-CD-0571	Avoid impacts
CRII Array Tribal Report - Addendum 1		CLIIB-003	TCP-CD-0630	Avoid impacts
CRII Array Tribal Report - Addendum 1		CLIIB-001	TCP-CD-0631	Avoid impacts
CRII Array Tribal Report - Addendum 1		CLIIB-002	TCP-CD-0632	Avoid impacts
CRII Array Tribal Report - Addendum 1		CLIIB-020	TCP-CD-0633	Avoid impacts
CRII Array Tribal Report - Addendum 1	Collection Line	CLIIB-021	TCP-CD-0634	Fencing and Monitoring
CRII Array Tribal Report - Addendum 1		CLIIB-023	TCP-CD-0635	Avoid impacts
CRII Array Tribal Report - Addendum 1	Collection Line	CLIIB-008	TCP-CD-0636	Fencing and Monitoring
CRII Array Tribal Report - Addendum 1		CLIIB-025	TCP-CD-0638	Avoid impacts
CRII Array Tribal Report - Addendum 1		CLIIB-006	TCP-CD-0639	Avoid impacts
CRII Array Tribal Report - Addendum 1		CLIIB-010	TCP-CD-0640	Avoid impacts
CRII Array Tribal Report - Addendum 1		CLIIB-004	TCP-CD-0641	Avoid impacts
CRII Array Tribal Report - Addendum 1		CLIIB-009	TCP-CD-0642	Avoid impacts
CRII Array Tribal Report - Addendum 1		CLIIB-005	TCP-CD-0643	Avoid impacts
CRII Array Tribal Report - Addendum 1		CLIIB-007	TCP-CD-0644	Avoid impacts
CRII Array Tribal Report - Addendum 1		CLIIB-013	TCP-CD-0645	Avoid impacts
CRII Array Tribal Report - Addendum 1		CLIIB-011	TCP-CD-0646	Avoid impacts
CRII Array Tribal Report - Addendum 1		CLIIB-015	TCP-CD-0647	Avoid impacts
CRII Array Tribal Report - Addendum 1		CLIIB-012	TCP-CD-0648	Avoid impacts
CRII Array Tribal Report - Addendum 1		CLIIB-018	TCP-CD-0649	Avoid impacts
CRII Array Tribal Report - Addendum 1		CLIIB-016	TCP-CD-0650	Avoid impacts
CRII Array Tribal Report - Addendum 1		CLIIB-019	TCP-CD-0651	Avoid impacts
CRII Array Tribal Report - Addendum 1		CLIIB-017	TCP-CD-0652	Avoid impacts
CRII Array Tribal Report - Addendum 1		CLIIB-014	TCP-CD-0653	Avoid impacts
CRII Array Tribal Report - Addendum 1		CLIIB-022	TCP-CD-0654	Avoid impacts
CRII Array Tribal Report - Addendum 1		CLIIB-032	TCP-CD-0655	Avoid impacts
CRII Array Tribal Report - Addendum 1		CLIIB-030	TCP-CD-0656	Avoid impacts
CRII Array Tribal Report - Addendum 1		CLIIB-034	TCP-CD-0657	Avoid impacts
CRII Array Tribal Report - Addendum 1		CLIIB-031	TCP-CD-0658	Avoid impacts
CRII Array Tribal Report - Addendum 1		CLIIB-024	TCP-CD-0659	Avoid impacts
CRII Array Tribal Report - Addendum 1		CLIIB-026	TCP-CD-0660	Avoid impacts
CRII Array Tribal Report - Addendum 1		CLIIB-028	TCP-CD-0661	Avoid impacts
CRII Array Tribal Report - Addendum 1		CLIIB-029	TCP-CD-0662	Avoid impacts
CRII Array Tribal Report - Addendum 1		CLIIB-033	TCP-CD-0663	Avoid impacts
CRII Array Tribal Report - Addendum 1		CLIIB-036	TCP-CD-0664	Avoid impacts
CRII Array Tribal Report - Addendum 1		CLIIB-038	TCP-CD-0665	Avoid impacts
CRII Array Tribal Report - Addendum 1		CLIIB-040	TCP-CD-0666	Avoid impacts
CRII Array Tribal Report - Addendum 1		CLIIB-035	TCP-CD-0667	Avoid impacts
CRII Array Tribal Report - Addendum 1		CLIIB-042	TCP-CD-0668	Avoid impacts
CRII Array Tribal Report - Addendum 1		CLIIB-039	TCP-CD-0669	Avoid impacts

CRII Array Tribal Report - Addendum 1		CLIIB-046	TCP-CD-0670	Avoid impacts
CRII Array Tribal Report - Addendum 1		CLIIB-037	TCP-CD-0671	Avoid impacts
CRII Array Tribal Report - Addendum 1		CLIIB-044	TCP-CD-0672	Avoid impacts
CRII Array Tribal Report - Addendum 1		CLIIB-041	TCP-CD-0673	Avoid impacts
CRII Array Tribal Report - Addendum 1		CLIIB-045	TCP-CD-0674	Avoid impacts
CRII Array Tribal Report - Addendum 1		CLIIB-043	TCP-CD-0675	Avoid impacts
CRII Array Tribal Report - Addendum 1		CLIIB-050	TCP-CD-0676	Avoid impacts
CRII Array Tribal Report - Addendum 1		CLIIB-051	TCP-CD-0677	Avoid impacts
CRII Array Tribal Report - Addendum 1		CLIIC-053	TCP-CD-0678	Avoid impacts
CRII Array Tribal Report - Addendum 1	Collection Line	CLIIC-052	TCP-CD-0679	Fencing and Monitoring
CRII Array Tribal Report - Addendum 1		CLIIC-051	TCP-CD-0680	Avoid impacts
CRII Array Tribal Report - Addendum 1		CLIIC-050	TCP-CD-0681	Avoid impacts
CRII Array Tribal Report - Addendum 1	Collection Line	CLIIC-048	TCP-CD-0682	Fencing and Monitoring
CRII Array Tribal Report - Addendum 1	Collection Line	CLIIC-047	TCP-CD-0683	Fencing and Monitoring
CRII Array Tribal Report - Addendum 1		CLIIC-049	TCP-CD-0684	Avoid impacts
CRII Array Tribal Report - Addendum 1		CLIIC-043	TCP-CD-0685	Avoid impacts
CRII Array Tribal Report - Addendum 1		CLIIC-042	TCP-CD-0686	Avoid impacts
CRII Array Tribal Report - Addendum 1		CLIIC-041	TCP-CD-0687	Avoid impacts
CRII Array Tribal Report - Addendum 1		CLIIC-046	TCP-CD-0688	Avoid impacts
CRII Array Tribal Report - Addendum 1	Collection Line	CLIIC-040	TCP-CD-0689	Fencing and Monitoring
CRII Array Tribal Report - Addendum 1		CLIIC-044	TCP-CD-0690	Avoid impacts
CRII Array Tribal Report - Addendum 1	Collection Line	CLIIB-047	TCP-CD-0691	Fencing and Monitoring
CRII Array Tribal Report - Addendum 1		CLIIC-045	TCP-CD-0692	Avoid impacts
CRII Array Tribal Report - Addendum 1		CLIIB-048	TCP-CD-0693	Avoid impacts
CRII Array Tribal Report - Addendum 1		CLIIB-049	TCP-CD-0694	Avoid impacts
CRII Array Tribal Report - Addendum 1		CLIIC-059	TCP-CD-0695	Avoid impacts
CRII Array Tribal Report - Addendum 1		CLIIC-060	TCP-CD-0696	Avoid impacts
CRII Array Tribal Report - Addendum 1	Collection Line	CLIIC-058	TCP-CD-0697	Fencing and Monitoring
CRII Array Tribal Report - Addendum 1	Collection Line	CLIIC-061	TCP-CD-0698	Fencing and Monitoring
CRII Array Tribal Report - Addendum 1	Collection Line	CLIIC-056	TCP-CD-0699	Fencing and Monitoring
CRII Array Tribal Report - Addendum 1	Collection Line	CLIIC-062	TCP-CD-0700	Fencing and Monitoring
CRII Array Tribal Report - Addendum 1	Collection Line	CLIIC-055	TCP-CD-0701	Fencing and Monitoring
CRII Array Tribal Report - Addendum 1	Collection Line	CLIIC-057	TCP-CD-0702	Fencing and Monitoring
CRII Array Tribal Report - Addendum 1	Collection Line	CLIIC-065	TCP-CD-0703	Fencing and Monitoring
CRII Array Tribal Report - Addendum 1	Collection Line	CLIIC-066	TCP-CD-0704	Fencing and Monitoring
CRII Array Tribal Report - Addendum 1	Collection Line	CLIIC-063	TCP-CD-0705	Fencing and Monitoring
CRII Array Tribal Report - Addendum 1	Collection Line	CLIIC-064	TCP-CD-0706	Fencing and Monitoring
CRII Array Tribal Report - Addendum 1		CLIIC-021	TCP-CD-0763	Avoid impacts
CRII Array Tribal Report - Addendum 1		CLIIC-019	TCP-CD-0764	Avoid impacts
CRII Array Tribal Report - Addendum 1		CLIIC-020	TCP-CD-0765	Avoid impacts
CRII Array Tribal Report - Addendum 1		CLIIC-007	TCP-CD-0766	Avoid impacts
CRII Array Tribal Report - Addendum 1		CLIIC-009	TCP-CD-0767	Avoid impacts
CRII Array Tribal Report - Addendum 1		CLIIC-011	TCP-CD-0768	Avoid impacts
CRII Array Tribal Report - Addendum 1		CLIIC-010	TCP-CD-0769	Avoid impacts
CRII Array Tribal Report - Addendum 1		CLIIC-008	TCP-CD-0770	Avoid impacts
CRII Array Tribal Report - Addendum 1		CLIIC-018	TCP-CD-0771	Avoid impacts
CRII Array Tribal Report - Addendum 1		CLIIC-017	TCP-CD-0772	Avoid impacts

CRII Array Tribal Report - Addendum 1		CLIIC-015	TCP-CD-0773	Avoid impacts
CRII Array Tribal Report - Addendum 1		CLIIC-013	TCP-CD-0774	Avoid impacts
CRII Array Tribal Report - Addendum 1		CLIIC-016	TCP-CD-0775	Avoid impacts
CRII Array Tribal Report - Addendum 1		CLIIC-014	TCP-CD-0776	Avoid impacts
CRII Array Tribal Report - Addendum 1		CLIIC-012	TCP-CD-0777	Avoid impacts
CRII Array Tribal Report - Addendum 1		ARII787-006	TCP-CD-0778	Avoid impacts
CRII Array Tribal Report - Addendum 1		ARII787-004	TCP-CD-0779	Avoid impacts
CRII Array Tribal Report - Addendum 1		ARII787-002	TCP-CD-0780	Avoid impacts
CRII Array Tribal Report - Addendum 1		ARII787-003	TCP-CD-0781	Avoid impacts
CRII Array Tribal Report - Addendum 1		ARII787-005	TCP-CD-0782	Avoid impacts
CRII Array Tribal Report - Addendum 1		ARII787-007	TCP-CD-0783	Avoid impacts
CRII Array Tribal Report - Addendum 1		ARII787-008	TCP-CD-0784	Avoid impacts
CRII Array Tribal Report - Addendum 1		ARII787-009	TCP-CD-0785	Avoid impacts
CRII Array Tribal Report - Addendum 1		CLIIC-004	TCP-CD-0786	Avoid impacts
CRII Array Tribal Report - Addendum 1		CLIIC-003	TCP-CD-0787	Avoid impacts
CRII Array Tribal Report - Addendum 1		ARII787-010	TCP-CD-0788	Avoid impacts
CRII Array Tribal Report - Addendum 1		CLIIC-002	TCP-CD-0789	Avoid impacts
CRII Array Tribal Report - Addendum 1		CLIIC-005	TCP-CD-0790	Avoid impacts
CRII Array Tribal Report - Addendum 1		CLIIC-001	TCP-CD-0791	Avoid impacts
CRII Array Tribal Report - Addendum 1		CLIIC-006	TCP-CD-0792	Avoid impacts
CRII Array Tribal Report - Addendum 1	Collection Line	CLIIC-022	TCP-CD-0793	Fencing and Monitoring
CRII Array Tribal Report - Addendum 1		CLIIC-023	TCP-CD-0794	Avoid impacts
CRII Array Tribal Report - Addendum 1		CLIIC-024	TCP-CD-0795	Avoid impacts
CRII Array Tribal Report - Addendum 1		CLIIC-025	TCP-CD-0796	Avoid impacts
CRII Array Tribal Report - Addendum 1		CLIIC-028	TCP-CD-0797	Avoid impacts
CRII Array Tribal Report - Addendum 1	Collection Line	CLIIC-027	TCP-CD-0798	Fencing and Monitoring
CRII Array Tribal Report - Addendum 1	Collection Line	CLIIC-037	TCP-CD-0799	Fencing and Monitoring
CRII Array Tribal Report - Addendum 1		CLIIC-029	TCP-CD-0800	Avoid impacts
CRII Array Tribal Report - Addendum 1	Collection Line	CLIIC-036	TCP-CD-0801	Fencing and Monitoring
CRII Array Tribal Report - Addendum 1	Collection Line	CLIIC-026	TCP-CD-0802	Fencing and Monitoring
CRII Array Tribal Report - Addendum 1	Collection Line	CLIIC-038	TCP-CD-0803	Fencing and Monitoring
CRII Array Tribal Report - Addendum 1	Collection Line	CLIIC-039	TCP-CD-0804	Fencing and Monitoring
CRII Array Tribal Report - Addendum 1	Collection Line	CLIIC-035	TCP-CD-0805	Fencing and Monitoring
CRII Array Tribal Report - Addendum 1		CLIIC-034	TCP-CD-0806	Avoid impacts
CRII Array Tribal Report - Addendum 1		CLIIC-032	TCP-CD-0807	Avoid impacts
CRII Array Tribal Report - Addendum 1		CLIIC-033	TCP-CD-0808	Avoid impacts
CRII Array Tribal Report - Addendum 1		CLIIC-030	TCP-CD-0809	Avoid impacts
CRII Array Tribal Report - Addendum 1		CLIIC-031	TCP-CD-0810	Avoid impacts
CRII Array Tribal Report - Addendum 1	Crane Path	CPIID-004	TCP-CD-0829	Fencing and Monitoring
CRII Array Tribal Report - Addendum 1	Crane Path	CPIID-001	TCP-CD-0830	Fencing and Monitoring
CRII Array Tribal Report - Addendum 1	Crane Path	CPIID-002	TCP-CD-0831	Fencing and Monitoring
CRII Array Tribal Report - Addendum 1	Crane Path	CPIID-003	TCP-CD-0832	Fencing and Monitoring
CRII Array Tribal Report - Addendum 1	Collection Line	CLIIE-080	TCP-CD-0833	Fencing and Monitoring
CRII Array Tribal Report - Addendum 1	Collection Line	CLIIE-079	TCP-CD-0834	Fencing and Monitoring
CRII Array Tribal Report - Addendum 1	Collection Line	CLIIE-081	TCP-CD-0835	Fencing and Monitoring
CRII Array Tribal Report - Addendum 1		CLIID-001	TCP-CD-0836	Avoid impacts
CRII Array Tribal Report - Addendum 1		CLIID-002	TCP-CD-0837	Avoid impacts

CRII Array Tribal Report - Addendum 1	Collection Line	CLIID-005	TCP-CD-0838	Fencing and Monitoring
CRII Array Tribal Report - Addendum 1	Collection Line	CLIID-003	TCP-CD-0839	Fencing and Monitoring
CRII Array Tribal Report - Addendum 1		CLIID-004	TCP-CD-0840	Avoid impacts
CRII Array Tribal Report - Addendum 1	Collection Line	CLIID-006	TCP-CD-0841	Fencing and Monitoring
CRII Array Tribal Report - Addendum 1	Collection Line	CLIIE-084	TCP-CD-0842	Fencing and Monitoring
CRII Array Tribal Report - Addendum 1		CLIIE-085	TCP-CD-0843	Avoid impacts
CRII Array Tribal Report - Addendum 1	Crane Path	ARIIE-004	TCP-CD-0844	Fencing and Monitoring
CRII Array Tribal Report - Addendum 1		ARIIE-002	TCP-CD-0845	Avoid impacts
CRII Array Tribal Report - Addendum 1		CLIIE-086	TCP-CD-0846	Avoid impacts
CRII Array Tribal Report - Addendum 1		ARIIE-003	TCP-CD-0847	Avoid impacts
CRII Array Tribal Report - Addendum 1		ARII116-03	TCP-CD-0848	Avoid impacts
CRII Array Tribal Report - Addendum 1		CLIIE-087	TCP-CD-0849	Avoid impacts
CRII Array Tribal Report - Addendum 1		CLIIF-008	TCP-CD-0850	Avoid impacts
CRII Array Tribal Report - Addendum 1		CLIIF-009	TCP-CD-0851	Avoid impacts
CRII Array Tribal Report - Addendum 1		CLIIF-005	TCP-CD-0852	Avoid impacts
CRII Array Tribal Report - Addendum 1		CLIIF-003	TCP-CD-0853	Avoid impacts
CRII Array Tribal Report - Addendum 1		CLIIF-007	TCP-CD-0854	Avoid impacts
CRII Array Tribal Report - Addendum 1		CLIIE-088	TCP-CD-0855	Avoid impacts
CRII Array Tribal Report - Addendum 1		CLIIE-089	TCP-CD-0856	Avoid impacts
CRII Array Tribal Report - Addendum 1		CLIIF-006	TCP-CD-0857	Avoid impacts
CRII Array Tribal Report - Addendum 1		CLIIF-004	TCP-CD-0858	Avoid impacts
CRII Array Tribal Report - Addendum 1		CLIIF-001	TCP-CD-0859	Avoid impacts
CRII Array Tribal Report - Addendum 1		CLIIF-002	TCP-CD-0860	Avoid impacts
CRII Array Tribal Report - Addendum 1		CLIIF-017	TCP-CD-0861	Avoid impacts
CRII Array Tribal Report - Addendum 1		CLIIF-016	TCP-CD-0862	Avoid impacts
CRII Array Tribal Report - Addendum 1		CLIIF-018	TCP-CD-0863	Avoid impacts
CRII Array Tribal Report - Addendum 1	Collection Line	CLIIE-083	TCP-CD-0864	Fencing and Monitoring
CRII Array Tribal Report - Addendum 1		WCE-001	TCP-CD-0865	Avoid impacts
CRII Array Tribal Report - Addendum 1		WCE-012	TCP-CD-0866	Avoid impacts
CRII Array Tribal Report - Addendum 1		WCE-011	TCP-CD-0867	Avoid impacts
CRII Array Tribal Report - Addendum 1		CLIIF-015	TCP-CD-0868	Avoid impacts
CRII Array Tribal Report - Addendum 1		WCE-002	TCP-CD-0869	Avoid impacts
CRII Array Tribal Report - Addendum 1		WCE-003	TCP-CD-0870	Avoid impacts
CRII Array Tribal Report - Addendum 1		WCE-013	TCP-CD-0871	Avoid impacts
CRII Array Tribal Report - Addendum 1		WCE-004	TCP-CD-0872	Avoid impacts
CRII Array Tribal Report - Addendum 1		WCE-005	TCP-CD-0873	Avoid impacts
CRII Array Tribal Report - Addendum 1		CLIIF-014	TCP-CD-0874	Avoid impacts
CRII Array Tribal Report - Addendum 1		WCE-006	TCP-CD-0875	Avoid impacts
CRII Array Tribal Report - Addendum 1		WCE-007	TCP-CD-0876	Avoid impacts
CRII Array Tribal Report - Addendum 1		CLIIF-013	TCP-CD-0877	Avoid impacts
CRII Array Tribal Report - Addendum 1		WCE-008	TCP-CD-0878	Avoid impacts
CRII Array Tribal Report - Addendum 1		CLIIF-012	TCP-CD-0879	Avoid impacts
CRII Array Tribal Report - Addendum 1		CLIIF-011	TCP-CD-0880	Avoid impacts
CRII Array Tribal Report - Addendum 1		WCE-010	TCP-CD-0881	Avoid impacts
CRII Array Tribal Report - Addendum 1		WCE-009	TCP-CD-0882	Avoid impacts
CRII Array Tribal Report - Addendum 1		CLIIF-010	TCP-CD-0883	Avoid impacts
CRII Array Tribal Report - Addendum 1	Collection Line	CLIIE-059	TCP-CD-0884	Fencing and Monitoring

CRII Array Tribal Report - Addendum 1		CLIIE-064	TCP-CD-0885	Avoid impacts
CRII Array Tribal Report - Addendum 1	Collection Line	CLIIE-066	TCP-CD-0886	Fencing and Monitoring
CRII Array Tribal Report - Addendum 1	Collection Line	CLIIE-060	TCP-CD-0887	Fencing and Monitoring
CRII Array Tribal Report - Addendum 1	Collection Line	CLIIE-062	TCP-CD-0888	Fencing and Monitoring
CRII Array Tribal Report - Addendum 1	Collection Line	CLIIE-065	TCP-CD-0889	Fencing and Monitoring
CRII Array Tribal Report - Addendum 1	Collection Line	CLIIE-061	TCP-CD-0890	Fencing and Monitoring
CRII Array Tribal Report - Addendum 1	Collection Line	CLIIE-071	TCP-CD-0891	Fencing and Monitoring
CRII Array Tribal Report - Addendum 1	Collection Line	CLIIE-063	TCP-CD-0892	Fencing and Monitoring
CRII Array Tribal Report - Addendum 1	Collection Line	CLIIE-067	TCP-CD-0893	Fencing and Monitoring
CRII Array Tribal Report - Addendum 1	Collection Line	CLIIE-073	TCP-CD-0894	Fencing and Monitoring
CRII Array Tribal Report - Addendum 1		CLIIE-072	TCP-CD-0895	Avoid impacts
CRII Array Tribal Report - Addendum 1	Collection Line	CLIIE-069	TCP-CD-0896	Fencing and Monitoring
CRII Array Tribal Report - Addendum 1		CLIIE-068	TCP-CD-0897	Avoid impacts
CRII Array Tribal Report - Addendum 1		CLIIE-070	TCP-CD-0898	Avoid impacts
CRII Array Tribal Report - Addendum 1		CPIIE-001	TCP-CD-0899	Avoid impacts
CRII Array Tribal Report - Addendum 1	Collection Line	CLIIE-033	TCP-CD-0900	Fencing and Monitoring
CRII Array Tribal Report - Addendum 1		CLIIE-035	TCP-CD-0901	Avoid impacts
CRII Array Tribal Report - Addendum 1	Collection Line	CLIIE-034	TCP-CD-0902	Fencing and Monitoring
CRII Array Tribal Report - Addendum 1	Collection Line	CLIIE-036	TCP-CD-0903	Fencing and Monitoring
CRII Array Tribal Report - Addendum 1	Collection Line	CLIIE-031	TCP-CD-0904	Fencing and Monitoring
CRII Array Tribal Report - Addendum 1	Collection Line	CLIIE-032	TCP-CD-0905	Fencing and Monitoring
CRII Array Tribal Report - Addendum 1	Collection Line	CLIIE-027	TCP-CD-0906	Fencing and Monitoring
CRII Array Tribal Report - Addendum 1	Collection Line	CLIIE-030	TCP-CD-0907	Fencing and Monitoring
CRII Array Tribal Report - Addendum 1		CLIIE-028	TCP-CD-0908	Avoid impacts
CRII Array Tribal Report - Addendum 1		CLIIE-029	TCP-CD-0909	Avoid impacts
CRII Array Tribal Report - Addendum 1	Collection Line	CLIIE-082	TCP-CD-0910	Fencing and Monitoring
CRII Array Tribal Report - Addendum 1		CPIIE-004	TCP-CD-0911	Avoid impacts
CRII Array Tribal Report - Addendum 1		CPIIE-005	TCP-CD-0912	Avoid impacts
CRII Array Tribal Report - Addendum 1		CPIIE-007	TCP-CD-0913	Avoid impacts
CRII Array Tribal Report - Addendum 1	Crane Path	CPIIE-006	TCP-CD-0914	Fencing and Monitoring
CRII Array Tribal Report - Addendum 1		CPIIE-003	TCP-CD-0915	Avoid impacts
CRII Array Tribal Report - Addendum 1		CPIIE-002	TCP-CD-0916	Avoid impacts
CRII Array Tribal Report - Addendum 1	Collection Line	CLII266-03	TCP-CD-0917	Fencing and Monitoring
CRII Array Tribal Report - Addendum 1	Collection Line	CLII266-01	TCP-CD-0918	Fencing and Monitoring
CRII Array Tribal Report - Addendum 1	Crane Path	CPIIE-010	TCP-CD-0919	Fencing and Monitoring
CRII Array Tribal Report - Addendum 1	Collection Line	CLIIE-025	TCP-CD-0920	Fencing and Monitoring
CRII Array Tribal Report - Addendum 1		CLIIF-055	TCP-CD-0927	Avoid impacts
CRII Array Tribal Report - Addendum 1		CLIIF-054	TCP-CD-0929	Avoid impacts
CRII Array Tribal Report - Addendum 1		CLIIF-053	TCP-CD-0930	Avoid impacts
CRII Array Tribal Report - Addendum 1		400-06	TCP-CD-1063	Avoid impacts
CRII Array Tribal Report - Addendum 1		II-033-S8	TCP-CD-1075	Avoid impacts
CRII Array Tribal Report - Addendum 1		643-02	TCP-CD-1076	Avoid impacts
CRII Array Tribal Report - Addendum 1		652-04	TCP-CD-1077	Avoid impacts
CRII Array Tribal Report - Addendum 1		453-11	TCP-CD-1078	Avoid impacts
CRII Array Tribal Report - Addendum 1		453-13	TCP-CD-1079	Avoid impacts
CRII Array Tribal Report - Addendum 1		400-01	TCP-CD-1080	Avoid impacts
CRII Array Tribal Report - Addendum 1		400-02	TCP-CD-1081	Avoid impacts

CRII Array Tribal Report - Addendum 1		326-03	TCP-CD-1082	Avoid impacts
CRII Array Tribal Report - Addendum 1		I-ALT3-S3	TCP-CD-1083	Avoid impacts
CRII Array Tribal Report - Addendum 1		I-ALT3-S1	TCP-CD-1084	Avoid impacts
CRII Array Tribal Report - Addendum 1		I-ALT3-S2	TCP-CD-1085	Avoid impacts
CRII Array Tribal Report - Addendum 1		I-ALT3-S6	TCP-CD-1086	Avoid impacts
CRII Array Tribal Report - Addendum 1		I-ALT3-S5	TCP-CD-1087	Avoid impacts
CRII Array Tribal Report - Addendum 1		I-ALT3-S4	TCP-CD-1088	Avoid impacts
CRII Array Tribal Report - Addendum 1		663-03	TCP-CD-1089	Avoid impacts
CRII Array Tribal Report - Addendum 1		663-01	TCP-CD-1090	Avoid impacts
CRII Array Tribal Report - Addendum 1		663-07	TCP-CD-1091	Avoid impacts
CRII Array Tribal Report - Addendum 1		663-13	TCP-CD-1092	Avoid impacts
CRII Array Tribal Report - Addendum 1		663-05	TCP-CD-1093	Avoid impacts
CRII Array Tribal Report - Addendum 1		663-06	TCP-CD-1094	Avoid impacts
CRII Array Tribal Report - Addendum 1		663-15	TCP-CD-1095	Avoid impacts
CRII Array Tribal Report - Addendum 1		663-14	TCP-CD-1096	Avoid impacts
CRII Array Tribal Report - Addendum 1		663-08	TCP-CD-1097	Avoid impacts
CRII Array Tribal Report - Addendum 1		663-09	TCP-CD-1098	Avoid impacts
CRII Array Tribal Report - Addendum 1		663-02	TCP-CD-1099	Avoid impacts
CRII Array Tribal Report - Addendum 1		663-11	TCP-CD-1100	Avoid impacts
CRII Array Tribal Report - Addendum 1		AI061-S7	TCP-CD-1101	Avoid impacts
CRII Array Tribal Report - Addendum 1		663-10	TCP-CD-1102	Avoid impacts
CRII Array Tribal Report - Addendum 1		663-04	TCP-CD-1103	Avoid impacts
CRII Array Tribal Report - Addendum 1		663-12	TCP-CD-1104	Avoid impacts
CRII Array Tribal Report - Addendum 1		AI061-S6	TCP-CD-1105	Avoid impacts
CRII Array Tribal Report - Addendum 1		AI061-S5	TCP-CD-1106	Avoid impacts
CRII Array Tribal Report - Addendum 1		AI061-S11	TCP-CD-1107	Avoid impacts
CRII Array Tribal Report - Addendum 1		AI061-S4	TCP-CD-1108	Avoid impacts
CRII Array Tribal Report - Addendum 1		AI061-S10	TCP-CD-1109	Avoid impacts
CRII Array Tribal Report - Addendum 1		AI061-S9	TCP-CD-1110	Avoid impacts
CRII Array Tribal Report - Addendum 1		AI061-S2	TCP-CD-1111	Avoid impacts
CRII Array Tribal Report - Addendum 1		AI061-S8	TCP-CD-1112	Avoid impacts
CRII Array Tribal Report - Addendum 1		AI061-S3	TCP-CD-1113	Avoid impacts
CRII Array Tribal Report - Addendum 1		AI061-S1	TCP-CD-1114	Avoid impacts
CRII Array Tribal Report - Addendum 1		AI114-S2	TCP-CD-1115	Avoid impacts
CRII Array Tribal Report - Addendum 1		AI116-S13	TCP-CD-1116	Avoid impacts
CRII Array Tribal Report - Addendum 1		AI116-S6	TCP-CD-1117	Avoid impacts
CRII Array Tribal Report - Addendum 1		AI116-S8	TCP-CD-1118	Avoid impacts
CRII Array Tribal Report - Addendum 1		AI114-S1	TCP-CD-1119	Avoid impacts
CRII Array Tribal Report - Addendum 1		AI116-S5	TCP-CD-1120	Avoid impacts
CRII Array Tribal Report - Addendum 1		AI116-S7	TCP-CD-1121	Avoid impacts
CRII Array Tribal Report - Addendum 1		AI116-S4	TCP-CD-1122	Avoid impacts
CRII Array Tribal Report - Addendum 1		AI116-S3	TCP-CD-1123	Avoid impacts
CRII Array Tribal Report - Addendum 1		AI116-S1	TCP-CD-1124	Avoid impacts
CRII Array Tribal Report - Addendum 1		AI116-S12	TCP-CD-1125	Avoid impacts
CRII Array Tribal Report - Addendum 1		AI116-S11	TCP-CD-1126	Avoid impacts
CRII Array Tribal Report - Addendum 1		AI116-S9	TCP-CD-1127	Avoid impacts
CRII Array Tribal Report - Addendum 1		AI116-S10	TCP-CD-1128	Avoid impacts

CRII Array Tribal Report - Addendum 1		ARII117-01	TCP-CD-1129	Avoid impacts
CRII Array Tribal Report - Addendum 1		ARII116-02	TCP-CD-1130	Avoid impacts
CRII Array Tribal Report - Addendum 1		ARII116-01	TCP-CD-1131	Avoid impacts
CRII Array Tribal Report - Addendum 1		658-08	TCP-CD-1132	Avoid impacts
CRII Array Tribal Report - Addendum 1		658-07	TCP-CD-1133	Avoid impacts
CRII Array Tribal Report - Addendum 1		658-06	TCP-CD-1134	Avoid impacts
CRII Array Tribal Report - Addendum 1		658-05	TCP-CD-1135	Avoid impacts
CRII Array Tribal Report - Addendum 1		658-04	TCP-CD-1136	Avoid impacts
CRII Array Tribal Report - Addendum 1		658-01	TCP-CD-1137	Avoid impacts
CRII Array Tribal Report - Addendum 1		658-03	TCP-CD-1138	Avoid impacts
CRII Array Tribal Report - Addendum 1		658-02	TCP-CD-1139	Avoid impacts
CRII Array Tribal Report - Addendum 1		AR610-01	TCP-CD-1140	Avoid impacts
CRII Array Tribal Report - Addendum 1		II-041-S5	TCP-CD-1141	Avoid impacts
CRII Array Tribal Report - Addendum 1		II-041-S8	TCP-CD-1142	Avoid impacts
CRII Array Tribal Report - Addendum 1		II-041-S7	TCP-CD-1143	Avoid impacts
CRII Array Tribal Report - Addendum 1		664-13	TCP-CD-1144	Avoid impacts
CRII Array Tribal Report - Addendum 1		664-15	TCP-CD-1145	Avoid impacts
CRII Array Tribal Report - Addendum 1		664-08	TCP-CD-1146	Avoid impacts
CRII Array Tribal Report - Addendum 1		664-12	TCP-CD-1147	Avoid impacts
CRII Array Tribal Report - Addendum 1		664-14	TCP-CD-1148	Avoid impacts
CRII Array Tribal Report - Addendum 1		664-10	TCP-CD-1149	Avoid impacts
CRII Array Tribal Report - Addendum 1		664-11	TCP-CD-1150	Avoid impacts
CRII Array Tribal Report - Addendum 1		664-09	TCP-CD-1151	Avoid impacts
CRII Array Tribal Report - Addendum 1		664-01	TCP-CD-1152	Avoid impacts
CRII Array Tribal Report - Addendum 1		664-04	TCP-CD-1153	Avoid impacts
CRII Array Tribal Report - Addendum 1		664-06	TCP-CD-1154	Avoid impacts
CRII Array Tribal Report - Addendum 1		664-07	TCP-CD-1155	Avoid impacts
CRII Array Tribal Report - Addendum 1		664-03	TCP-CD-1156	Avoid impacts
CRII Array Tribal Report - Addendum 1		664-02	TCP-CD-1157	Avoid impacts
CRII Array Tribal Report - Addendum 1		664-05	TCP-CD-1158	Avoid impacts
CRII Array Tribal Report - Addendum 1		ARII430-02	TCP-CD-1159	Avoid impacts
CRII Array Tribal Report - Addendum 1	Access Roads	ARII430-03	TCP-CD-1160	Fencing and Monitoring
CRII Array Tribal Report - Addendum 1	Access Roads	ARII430-01	TCP-CD-1161	Fencing and Monitoring
CRII Array Tribal Report - Addendum 1		667-02	TCP-CD-1162	Avoid impacts
CRII Array Tribal Report - Addendum 1		667-03	TCP-CD-1163	Avoid impacts
CRII Array Tribal Report - Addendum 1		AI048-S1	TCP-CD-1164	Avoid impacts
CRII Array Tribal Report - Addendum 1		II-073-S2	TCP-CD-1165	Avoid impacts
CRII Array Tribal Report - Addendum 1		II-073-S1	TCP-CD-1166	Avoid impacts
CRII Array Tribal Report - Addendum 1		CLII266-02	TCP-CD-1167	Avoid impacts
CRII Array Tribal Report - Addendum 1		ARII171-01	TCP-CD-1168	Avoid impacts
CRII Array Tribal Report - Addendum 1		01	TCP-CD-1169	Avoid impacts
CRII Array Tribal Report - Addendum 1		01	TCP-CD-1170	Avoid impacts
CRII Array Tribal Report - Primary	Turbines , Access Roads	II-034-S10	TCP-DE-0001	Fencing and Monitoring
CRII Array Tribal Report - Primary		II-034-S7	TCP-DE-0002	Avoid impacts
CRII Array Tribal Report - Primary	Turbines , Access Roads	II-034-S11	TCP-DE-0003	Fencing and Monitoring
CRII Array Tribal Report - Primary	Turbines , Access Roads	II-034-S9	TCP-DE-0004	Fencing and Monitoring
CRII Array Tribal Report - Primary	Turbines , Access Roads	II-034-S6	TCP-DE-0005	Fencing and Monitoring

CRII Array Tribal Report - Primary	Turbines	II-034-S1	TCP-DE-0006	Fencing and Monitoring
CRII Array Tribal Report - Primary	Turbines	II-034-S5	TCP-DE-0007	Fencing and Monitoring
CRII Array Tribal Report - Primary		II-034-S4	TCP-DE-0008	Avoid impacts
CRII Array Tribal Report - Primary		671-06	TCP-DE-0009	Avoid impacts
CRII Array Tribal Report - Primary		671-05	TCP-DE-0010	Avoid impacts
CRII Array Tribal Report - Primary		671-04	TCP-DE-0011	Avoid impacts
CRII Array Tribal Report - Primary		671-02	TCP-DE-0012	Avoid impacts
CRII Array Tribal Report - Primary		671-03	TCP-DE-0013	Avoid impacts
CRII Array Tribal Report - Primary		671-01	TCP-DE-0014	Avoid impacts
CRII Array Tribal Report - Primary		593-01	TCP-DE-0015	Avoid impacts
CRII Array Tribal Report - Primary		593-02	TCP-DE-0016	Avoid impacts
CRII Array Tribal Report - Primary		II-044-S3	TCP-DE-0017	Avoid impacts
CRII Array Tribal Report - Primary	Turbines , Access Roads	II-048-S4	TCP-DE-0018	Fencing and Monitoring
CRII Array Tribal Report - Primary		II-048-S2	TCP-DE-0019	Avoid impacts
CRII Array Tribal Report - Primary	Collection Lines	II-048-S1	TCP-DE-0020	Fencing and Monitoring
CRII Array Tribal Report - Primary	Turbines	649-01	TCP-DE-0021	Fencing and Monitoring
CRII Array Tribal Report - Primary		445-05	TCP-DE-0022	Avoid impacts
CRII Array Tribal Report - Primary		445-04	TCP-DE-0023	Avoid impacts
CRII Array Tribal Report - Primary		445-02	TCP-DE-0024	Avoid impacts
CRII Array Tribal Report - Primary		605-08	TCP-DE-0025	Avoid impacts
CRII Array Tribal Report - Primary	Turbines	665-01	TCP-DE-0026	Fencing and Monitoring
CRII Array Tribal Report - Primary	Collection Line, Turbines	605-07	TCP-DE-0027	Fencing and Monitoring
CRII Array Tribal Report - Primary	Turbines	605-06	TCP-DE-0028	Fencing and Monitoring
CRII Array Tribal Report - Primary	Turbines	605-05	TCP-DE-0029	Fencing and Monitoring
CRII Array Tribal Report - Primary		605-04	TCP-DE-0030	Avoid impacts
CRII Array Tribal Report - Primary		605-03	TCP-DE-0031	Avoid impacts
CRII Array Tribal Report - Primary	Turbines	605-02	TCP-DE-0032	Fencing and Monitoring
CRII Array Tribal Report - Primary	Collection Line, Turbines	605-01	TCP-DE-0033	Fencing and Monitoring
CRII Array Tribal Report - Primary		II-113-S13	TCP-DE-0034	Avoid impacts
CRII Array Tribal Report - Primary		571-02	TCP-DE-0035	Avoid impacts
CRII Array Tribal Report - Primary		II-113-S12	TCP-DE-0036	Avoid impacts
CRII Array Tribal Report - Primary		II-113-S6	TCP-DE-0037	Avoid impacts
CRII Array Tribal Report - Primary		571-01	TCP-DE-0038	Avoid impacts
CRII Array Tribal Report - Primary		II-113-S8	TCP-DE-0039	Avoid impacts
CRII Array Tribal Report - Primary	Turbines	II-113-S10	TCP-DE-0040	Fencing and Monitoring
CRII Array Tribal Report - Primary	Turbines	II-113-S14	TCP-DE-0041	Fencing and Monitoring
CRII Array Tribal Report - Primary		II-113-S3	TCP-DE-0042	Avoid impacts
CRII Array Tribal Report - Primary		II-113-S2	TCP-DE-0043	Avoid impacts
CRII Array Tribal Report - Primary		II-113-S1	TCP-DE-0044	Avoid impacts
CRII Array Tribal Report - Primary		611-02	TCP-DE-0045	Avoid impacts
CRII Array Tribal Report - Primary		II-117-S1	TCP-DE-0046	Avoid impacts
CRII Array Tribal Report - Primary	Turbines	567-01	TCP-DE-0047	Fencing and Monitoring
CRII Array Tribal Report - Primary	Turbines	567-02	TCP-DE-0048	Fencing and Monitoring
CRII Array Tribal Report - Primary	Turbines	II-117-S2	TCP-DE-0049	Fencing and Monitoring
CRII Array Tribal Report - Primary		II-127-S1	TCP-DE-0050	Avoid impacts
CRII Array Tribal Report - Primary		642-02	TCP-DE-0051	Avoid impacts
CRII Array Tribal Report - Primary		691-02	TCP-DE-0052	Avoid impacts

CRII Array Tribal Report - Primary	Turbines , Access Roads	691-01	TCP-DE-0053	Fencing and Monitoring
CRII Array Tribal Report - Primary	Collection Line	AR491-04	TCP-DE-0054	Fencing and Monitoring
CRII Array Tribal Report - Primary	Turbines	AR491-05	TCP-DE-0055	Fencing and Monitoring
CRII Array Tribal Report - Primary	Turbines	695-01	TCP-DE-0056	Fencing and Monitoring
CRII Array Tribal Report - Addendum 1	Access Roads	II-034-S2	TCP-DE-0057	Fencing and Monitoring
CRII Array Tribal Report - Addendum 1	Access Roads	AR495-01	TCP-DE-0058	Fencing and Monitoring
CRII Array Tribal Report - Primary	Turbines , Access Roads	AR495-02	TCP-DE-0059	Fencing and Monitoring
CRII Array Tribal Report - Addendum 1		AR549-01	TCP-DE-0060	Avoid impacts
CRII Array Tribal Report - Addendum 1		1421-07	TCP-DE-0061	Avoid impacts
CRII Array Tribal Report - Addendum 1		1421-06	TCP-DE-0062	Avoid impacts
CRII Array Tribal Report - Addendum 1		656-01	TCP-DE-0063	Avoid impacts
CRII Array Tribal Report - Addendum 1		AR524-02	TCP-DE-0064	Avoid impacts
CRII Array Tribal Report - Addendum 1		AR524-01	TCP-DE-0065	Avoid impacts
CRII Array Tribal Report - Addendum 1		656-03	TCP-DE-0066	Avoid impacts
CRII Array Tribal Report - Addendum 1		1421-15	TCP-DE-0067	Avoid impacts
CRII Array Tribal Report - Addendum 1		AR566-01	TCP-DE-0068	Avoid impacts
CRII Array Tribal Report - Primary	Turbines	709-01	TCP-DE-0069	Fencing and Monitoring
CRII Array Tribal Report - Primary		642-01	TCP-DE-0070	Avoid impacts
CRII Array Tribal Report - Addendum 1		CLIIC-071	TCP-DE-0071	Avoid impacts
CRII Array Tribal Report - Addendum 1		CLIIC-070	TCP-DE-0072	Avoid impacts
CRII Array Tribal Report - Addendum 1		CLIIC-069	TCP-DE-0073	Avoid impacts
CRII Array Tribal Report - Addendum 1		CLIIC-068	TCP-DE-0074	Avoid impacts
CRII Array Tribal Report - Addendum 1		CLIIC-067	TCP-DE-0075	Avoid impacts
CRII Array Tribal Report - Addendum 1		CLIIC-072	TCP-DE-0076	Avoid impacts
CRII Array Tribal Report - Addendum 1		CLIIC-073	TCP-DE-0077	Avoid impacts
CRII Array Tribal Report - Addendum 1		CLIIC-074	TCP-DE-0078	Avoid impacts
CRII Array Tribal Report - Addendum 1		CLIIC-075	TCP-DE-0079	Avoid impacts
CRII Array Tribal Report - Addendum 1	Collection Line	CLIIF-026	TCP-DE-0080	Fencing and Monitoring
CRII Array Tribal Report - Addendum 1		CLIIF-025	TCP-DE-0081	Avoid impacts
CRII Array Tribal Report - Addendum 1	Collection Line	CLIIF-024	TCP-DE-0082	Fencing and Monitoring
CRII Array Tribal Report - Addendum 1	Collection Line	CLIIF-023	TCP-DE-0083	Fencing and Monitoring
CRII Array Tribal Report - Addendum 1	Collection Line	CLIIF-022	TCP-DE-0084	Fencing and Monitoring
CRII Array Tribal Report - Addendum 1	Collection Line	CLIIF-021	TCP-DE-0085	Fencing and Monitoring
CRII Array Tribal Report - Addendum 1	Collection Line	CLIIF-020	TCP-DE-0086	Fencing and Monitoring
CRII Array Tribal Report - Addendum 1		AR486-01	TCP-DE-0087	Avoid impacts
CRII Array Tribal Report - Addendum 1	Collection Line	CLIIF-019	TCP-DE-0088	Fencing and Monitoring
CRII Array Tribal Report - Addendum 1	Collection Line	CLIIF-037	TCP-DE-0089	Fencing and Monitoring
CRII Array Tribal Report - Addendum 1	Collection Line	CLIIF-038	TCP-DE-0090	Fencing and Monitoring
CRII Array Tribal Report - Addendum 1		CLIIF-027	TCP-DE-0091	Avoid impacts
CRII Array Tribal Report - Addendum 1		CLIIF-042	TCP-DE-0092	Avoid impacts
CRII Array Tribal Report - Addendum 1		CLIIF-034	TCP-DE-0093	Avoid impacts
CRII Array Tribal Report - Addendum 1	Collection Line	CLIIF-039	TCP-DE-0094	Fencing and Monitoring
CRII Array Tribal Report - Addendum 1	Collection Line	CLIIF-041	TCP-DE-0095	Fencing and Monitoring
CRII Array Tribal Report - Addendum 1		CLIIF-029	TCP-DE-0096	Avoid impacts
CRII Array Tribal Report - Addendum 1		CLIIF-030	TCP-DE-0097	Avoid impacts
CRII Array Tribal Report - Addendum 1		CLIIF-028	TCP-DE-0098	Avoid impacts
CRII Array Tribal Report - Addendum 1		CLIIF-035	TCP-DE-0099	Avoid impacts

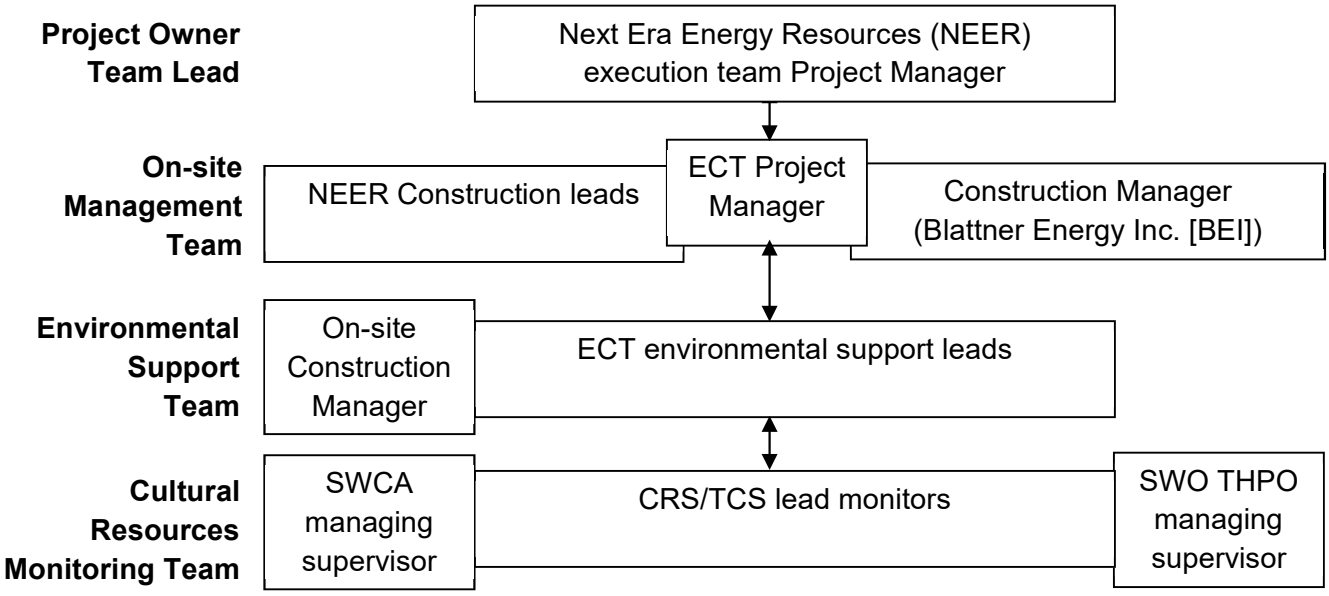
CRII Array Tribal Report - Addendum 1	Collection Line	CLIIF-040	TCP-DE-0100	Fencing and Monitoring
CRII Array Tribal Report - Addendum 1		CLIIE-058	TCP-DE-0101	Avoid impacts
CRII Array Tribal Report - Addendum 1		CLIIF-031	TCP-DE-0102	Avoid impacts
CRII Array Tribal Report - Addendum 1		CLIIF-043	TCP-DE-0103	Avoid impacts
CRII Array Tribal Report - Addendum 1		CLIIF-032	TCP-DE-0104	Avoid impacts
CRII Array Tribal Report - Addendum 1		CLIIE-057	TCP-DE-0105	Avoid impacts
CRII Array Tribal Report - Addendum 1		CLIIF-036	TCP-DE-0106	Avoid impacts
CRII Array Tribal Report - Addendum 1		CLIIF-033	TCP-DE-0107	Avoid impacts
CRII Array Tribal Report - Addendum 1		CLIIE-054	TCP-DE-0108	Avoid impacts
CRII Array Tribal Report - Addendum 1		CLIIE-045	TCP-DE-0109	Avoid impacts
CRII Array Tribal Report - Addendum 1		CLIIE-056	TCP-DE-0110	Avoid impacts
CRII Array Tribal Report - Addendum 1		CLIIE-055	TCP-DE-0111	Avoid impacts
CRII Array Tribal Report - Addendum 1		CLIIE-049	TCP-DE-0112	Avoid impacts
CRII Array Tribal Report - Addendum 1		CLIIE-051	TCP-DE-0113	Avoid impacts
CRII Array Tribal Report - Addendum 1		CLIIE-044	TCP-DE-0114	Avoid impacts
CRII Array Tribal Report - Addendum 1		CLIIE-053	TCP-DE-0115	Avoid impacts
CRII Array Tribal Report - Addendum 1		CLIIE-046	TCP-DE-0116	Avoid impacts
CRII Array Tribal Report - Addendum 1		CLIIE-048	TCP-DE-0117	Avoid impacts
CRII Array Tribal Report - Addendum 1		CLIIE-040	TCP-DE-0118	Avoid impacts
CRII Array Tribal Report - Addendum 1		CLIIE-050	TCP-DE-0119	Avoid impacts
CRII Array Tribal Report - Addendum 1		CLIIE-052	TCP-DE-0120	Avoid impacts
CRII Array Tribal Report - Addendum 1		CLIIE-047	TCP-DE-0121	Avoid impacts
CRII Array Tribal Report - Addendum 1		CLIIE-041	TCP-DE-0122	Avoid impacts
CRII Array Tribal Report - Addendum 1		CLIIE-039	TCP-DE-0123	Avoid impacts
CRII Array Tribal Report - Addendum 1		CLIIE-042	TCP-DE-0124	Avoid impacts
CRII Array Tribal Report - Addendum 1		CLIIE-043	TCP-DE-0125	Avoid impacts
CRII Array Tribal Report - Addendum 1		CLIIF-044	TCP-DE-0126	Avoid impacts
CRII Array Tribal Report - Addendum 1	Collection Line	CLIIE-037	TCP-DE-0127	Fencing and Monitoring
CRII Array Tribal Report - Addendum 1	Collection Line	CLIIE-038	TCP-DE-0128	Fencing and Monitoring
CRII Array Tribal Report - Addendum 1		CLIIE-076	TCP-DE-0129	Avoid impacts
CRII Array Tribal Report - Addendum 1		CLIIE-078	TCP-DE-0130	Avoid impacts
CRII Array Tribal Report - Addendum 1		CLIIE-077	TCP-DE-0131	Avoid impacts
CRII Array Tribal Report - Addendum 1	Collection Line	CLIIE-074	TCP-DE-0132	Fencing and Monitoring
CRII Array Tribal Report - Addendum 1	Access Roads	ARIIE-001	TCP-DE-0133	Fencing and Monitoring
CRII Array Tribal Report - Addendum 1		AR491-06	TCP-DE-0134	Avoid impacts
CRII Array Tribal Report - Addendum 1		AR491-10	TCP-DE-0135	Avoid impacts
CRII Array Tribal Report - Addendum 1	Collection Line	CLIIE-075	TCP-DE-0136	Fencing and Monitoring
CRII Array Tribal Report - Addendum 1	Access Roads	CPIIE-008	TCP-DE-0137	Fencing and Monitoring
CRII Array Tribal Report - Addendum 1		CLIIE-001	TCP-DE-0138	Avoid impacts
CRII Array Tribal Report - Addendum 1		CLIIE-015	TCP-DE-0139	Avoid impacts
CRII Array Tribal Report - Addendum 1		CLIIE-012	TCP-DE-0140	Avoid impacts
CRII Array Tribal Report - Addendum 1	Collection Line	CLIIE-014	TCP-DE-0141	Fencing and Monitoring
CRII Array Tribal Report - Addendum 1	Collection Line	CLIIE-011	TCP-DE-0142	Fencing and Monitoring
CRII Array Tribal Report - Addendum 1	Collection Line	CLIIE-010	TCP-DE-0143	Fencing and Monitoring
CRII Array Tribal Report - Addendum 1		CLIIE-016	TCP-DE-0144	Avoid impacts
CRII Array Tribal Report - Addendum 1	Collection Line	CLIIE-005	TCP-DE-0145	Fencing and Monitoring
CRII Array Tribal Report - Addendum 1		CLIIE-004	TCP-DE-0146	Avoid impacts

CRII Array Tribal Report - Addendum 1	Collection Line	CLIIE-007	TCP-DE-0147	Fencing and Monitoring
CRII Array Tribal Report - Addendum 1		CLIIE-006	TCP-DE-0148	Avoid impacts
CRII Array Tribal Report - Addendum 1	Collection Line	CLIIE-013	TCP-DE-0149	Fencing and Monitoring
CRII Array Tribal Report - Addendum 1		CLIIE-023	TCP-DE-0150	Avoid impacts
CRII Array Tribal Report - Addendum 1	Collection Line	CLIIE-026	TCP-DE-0151	Fencing and Monitoring
CRII Array Tribal Report - Addendum 1	Collection Line	CLIIE-022	TCP-DE-0152	Fencing and Monitoring
CRII Array Tribal Report - Addendum 1	Collection Line	CLIIE-020	TCP-DE-0153	Fencing and Monitoring
CRII Array Tribal Report - Addendum 1	Collection Line	CLIIE-018	TCP-DE-0154	Fencing and Monitoring
CRII Array Tribal Report - Addendum 1	Collection Line	CLIIE-024	TCP-DE-0155	Fencing and Monitoring
CRII Array Tribal Report - Addendum 1		CLIIE-002	TCP-DE-0156	Avoid impacts
CRII Array Tribal Report - Addendum 1		CLIIE-003	TCP-DE-0157	Avoid impacts
CRII Array Tribal Report - Addendum 1		CLIIE-019	TCP-DE-0158	Avoid impacts
CRII Array Tribal Report - Addendum 1	Collection Line	CLIIE-017	TCP-DE-0159	Fencing and Monitoring
CRII Array Tribal Report - Addendum 1		CLIIE-009	TCP-DE-0160	Avoid impacts
CRII Array Tribal Report - Addendum 1		CLIIE-021	TCP-DE-0161	Avoid impacts
CRII Array Tribal Report - Addendum 1		CLIIE-008	TCP-DE-0162	Avoid impacts
CRII Array Tribal Report - Addendum 1	Crane Path	CPIIE-009	TCP-DE-0163	Fencing and Monitoring
CRII Array Tribal Report - Addendum 1		AR555-09	TCP-DE-0164	Avoid impacts
CRII Array Tribal Report - Addendum 1		AR555-08	TCP-DE-0165	Avoid impacts
CRII Array Tribal Report - Addendum 1		AR555-07	TCP-DE-0166	Avoid impacts
CRII Array Tribal Report - Addendum 1		AR555-06	TCP-DE-0167	Avoid impacts
CRII Array Tribal Report - Addendum 1		AR555-05	TCP-DE-0168	Avoid impacts
CRII Array Tribal Report - Addendum 1		AR555-04	TCP-DE-0169	Avoid impacts
CRII Array Tribal Report - Addendum 1		CPIIE-011	TCP-DE-0170	Avoid impacts
CRII Array Tribal Report - Addendum 1		AR555-02	TCP-DE-0171	Avoid impacts
CRII Array Tribal Report - Addendum 1		II-113-S5	TCP-DE-0172	Avoid impacts
CRII Array Tribal Report - Addendum 1		AR555-01	TCP-DE-0173	Avoid impacts
CRII Array Tribal Report - Addendum 1		AR524-04	TCP-DE-0174	Avoid impacts
CRII Array Tribal Report - Addendum 1		1421-02	TCP-DE-0175	Avoid impacts
CRII Array Tribal Report - Addendum 1		656-02	TCP-DE-0176	Avoid impacts
CRII Array Tribal Report - Addendum 1		656-04	TCP-DE-0177	Avoid impacts
CRII Array Tribal Report - Addendum 1		CLIIF-048	TCP-DE-0178	Avoid impacts
CRII Array Tribal Report - Addendum 1		CLIIF-045	TCP-DE-0179	Avoid impacts
CRII Array Tribal Report - Addendum 1		CLIIF-047	TCP-DE-0180	Avoid impacts
CRII Array Tribal Report - Addendum 1		CLIIF-049	TCP-DE-0181	Avoid impacts
CRII Array Tribal Report - Addendum 1		CLIIF-046	TCP-DE-0182	Avoid impacts
CRII Array Tribal Report - Addendum 1		CLIIF-050	TCP-DE-0183	Avoid impacts
CRII Array Tribal Report - Addendum 1		CLIIF-051	TCP-DE-0184	Avoid impacts
CRII Array Tribal Report - Addendum 1		CLIIF-052	TCP-DE-0185	Avoid impacts
CRII Array Tribal Report - Addendum 1		AR488-02	TCP-DE-0186	Avoid impacts
CRII Array Tribal Report - Addendum 1		II-044-S2	TCP-DE-0187	Avoid impacts
CRII Array Tribal Report - Addendum 1		II-044-S1	TCP-DE-0188	Avoid impacts
CRII Array Tribal Report - Addendum 1	Collection Line	AR491-07	TCP-DE-0189	Fencing and Monitoring
CRII Array Tribal Report - Addendum 1		445-03	TCP-DE-0190	Avoid impacts
CRII Array Tribal Report - Addendum 1		605-09	TCP-DE-0191	Avoid impacts
CRII Array Tribal Report - Addendum 1		II-117-S3	TCP-DE-0192	Avoid impacts
CRII Array Tribal Report - Addendum 1		611-03	TCP-DE-0193	Avoid impacts

CRII Array Tribal Report - Addendum 1		611-01	TCP-DE-0194	Avoid impacts
CRII Array Tribal Report - Addendum 1		AR487-05	TCP-DE-0195	Avoid impacts
CRII Array Tribal Report - Addendum 1		AR487-04	TCP-DE-0196	Avoid impacts
CRII Array Tribal Report - Addendum 1		AR487-03	TCP-DE-0197	Avoid impacts
CRII Array Tribal Report - Addendum 1		AR487-02	TCP-DE-0198	Avoid impacts
CRII Array Tribal Report - Addendum 1		AR487-01	TCP-DE-0199	Avoid impacts
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CRII Array Tribal Report - Addendum 1		548-01	TCP-DE-0201	Avoid impacts
CRII Array Tribal Report - Addendum 1		548-05	TCP-DE-0202	Avoid impacts
CRII Array Tribal Report - Addendum 1		548-09	TCP-DE-0203	Avoid impacts
CRII Array Tribal Report - Addendum 1		548-02	TCP-DE-0204	Avoid impacts
CRII Array Tribal Report - Addendum 1		548-03	TCP-DE-0205	Avoid impacts
CRII Array Tribal Report - Addendum 1		548-08	TCP-DE-0206	Avoid impacts
CRII Array Tribal Report - Addendum 1		548-06	TCP-DE-0207	Avoid impacts
CRII Array Tribal Report - Addendum 1		548-07	TCP-DE-0208	Avoid impacts
CRII Array Tribal Report - Addendum 1		II-034-S3	TCP-DE-0209	Avoid impacts
CRII Array Tribal Report - Addendum 1		AR488-01	TCP-DE-0210	Avoid impacts
CRII Array Tribal Report - Addendum 1		AR488-03	TCP-DE-0211	Avoid impacts
CRII Array Tribal Report - Addendum 1		AR488-04	TCP-DE-0212	Avoid impacts
CRII Array Tribal Report - Addendum 1		II-048-S3	TCP-DE-0213	Avoid impacts
CRII Array Tribal Report - Addendum 1		AR491-08	TCP-DE-0214	Avoid impacts
CRII Array Tribal Report - Addendum 1		AR491-11	TCP-DE-0215	Avoid impacts
CRII Array Tribal Report - Addendum 1		AR491-03	TCP-DE-0216	Avoid impacts
CRII Array Tribal Report - Addendum 1		AR491-02	TCP-DE-0217	Avoid impacts
CRII Array Tribal Report - Addendum 1		AR505-02	TCP-DE-0218	Avoid impacts
CRII Array Tribal Report - Addendum 1		537-05	TCP-DE-0219	Avoid impacts
CRII Array Tribal Report - Addendum 1		AR505-04	TCP-DE-0220	Avoid impacts
CRII Array Tribal Report - Addendum 1		537-02	TCP-DE-0221	Avoid impacts
CRII Array Tribal Report - Addendum 1		AR505-06	TCP-DE-0222	Avoid impacts
CRII Array Tribal Report - Addendum 1		AR505-05	TCP-DE-0223	Avoid impacts
CRII Array Tribal Report - Addendum 1		537-03	TCP-DE-0224	Avoid impacts
CRII Array Tribal Report - Addendum 1		AR505-03	TCP-DE-0225	Avoid impacts
CRII Array Tribal Report - Addendum 1		537-01	TCP-DE-0226	Avoid impacts
CRII Array Tribal Report - Addendum 1		AR505-01	TCP-DE-0227	Avoid impacts
CRII Array Tribal Report - Addendum 1		537-06	TCP-DE-0228	Avoid impacts
CRII Array Tribal Report - Addendum 1		537-04	TCP-DE-0229	Avoid impacts
CRII Array Tribal Report - Addendum 1		AR553-02	TCP-DE-0230	Avoid impacts
CRII Array Tribal Report - Addendum 1		II-096-S2	TCP-DE-0231	Avoid impacts
CRII Array Tribal Report - Addendum 1		II-096-S1	TCP-DE-0232	Avoid impacts
CRII Array Tribal Report - Addendum 1		II-ALT8-S5	TCP-DE-0233	Avoid impacts
CRII Array Tribal Report - Addendum 1		II-ALT8-S3	TCP-DE-0234	Avoid impacts
CRII Array Tribal Report - Addendum 1		II-ALT8-S1	TCP-DE-0235	Avoid impacts
CRII Array Tribal Report - Addendum 1		II-ALT8-S6	TCP-DE-0236	Avoid impacts
CRII Array Tribal Report - Addendum 1		II-ALT8-S4	TCP-DE-0237	Avoid impacts
CRII Array Tribal Report - Addendum 1		II-ALT8-S2	TCP-DE-0238	Avoid impacts
CRII Array Tribal Report - Addendum 1		II-ALT11-S1	TCP-DE-0239	Avoid impacts
CRII Array Tribal Report - Addendum 1		CLII339-06	TCP-DE-0240	Avoid impacts

CRII Array Tribal Report - Addendum 1		CLII339-07	TCP-DE-0241	Avoid impacts
CRII Array Tribal Report - Addendum 1		CLII339-03	TCP-DE-0242	Avoid impacts
CRII Array Tribal Report - Addendum 1		CLII339-05	TCP-DE-0243	Avoid impacts
CRII Array Tribal Report - Addendum 1		CLII339-02	TCP-DE-0244	Avoid impacts
CRII Array Tribal Report - Addendum 1		CLII339-04	TCP-DE-0245	Avoid impacts
CRII Array Tribal Report - Addendum 1		CLII339-11	TCP-DE-0246	Avoid impacts
CRII Array Tribal Report - Addendum 1		CLII339-08	TCP-DE-0247	Avoid impacts
CRII Array Tribal Report - Addendum 1		CLII339-01	TCP-DE-0248	Avoid impacts
CRII Array Tribal Report - Addendum 1		CLII339-10	TCP-DE-0249	Avoid impacts
CRII Array Tribal Report - Addendum 1		CLII339-09	TCP-DE-0250	Avoid impacts
CRII Array Tribal Report - Addendum 1		AR555-03	TCP-DE-0251	Avoid impacts
CRII Array Tribal Report - Addendum 1		CLIIG-001	TCP-DE-0252	Avoid impacts
CRII Array Tribal Report - Addendum 1		603-04	TCP-DE-0253	Avoid impacts
CRII Array Tribal Report - Addendum 1		603-05	TCP-DE-0254	Avoid impacts
CRII Array Tribal Report - Addendum 1		603-03	TCP-DE-0255	Avoid impacts
CRII Array Tribal Report - Addendum 1		603-06	TCP-DE-0256	Avoid impacts
CRII Array Tribal Report - Addendum 1		603-09	TCP-DE-0257	Avoid impacts
CRII Array Tribal Report - Addendum 1		603-02	TCP-DE-0258	Avoid impacts
CRII Array Tribal Report - Addendum 1		603-07	TCP-DE-0259	Avoid impacts
CRII Array Tribal Report - Addendum 1		603-08	TCP-DE-0260	Avoid impacts
CRII Array Tribal Report - Addendum 1		603-01	TCP-DE-0261	Avoid impacts
CRII Array Tribal Report - Addendum 1		II-113-S7	TCP-DE-0262	Avoid impacts
CRII Array Tribal Report - Addendum 1		1421-14	TCP-DE-0263	Avoid impacts
CRII Array Tribal Report - Addendum 1		II-113-S11	TCP-DE-0264	Avoid impacts
CRII Array Tribal Report - Addendum 1		603-10	TCP-DE-0265	Avoid impacts
CRII Array Tribal Report - Addendum 1		1421-10	TCP-DE-0266	Avoid impacts
CRII Array Tribal Report - Addendum 1		1421-13	TCP-DE-0267	Avoid impacts
CRII Array Tribal Report - Addendum 1		II-113-S9	TCP-DE-0268	Avoid impacts
CRII Array Tribal Report - Addendum 1		1421-08	TCP-DE-0269	Avoid impacts
CRII Array Tribal Report - Addendum 1		1421-12	TCP-DE-0270	Avoid impacts
CRII Array Tribal Report - Addendum 1		1421-09	TCP-DE-0271	Avoid impacts
CRII Array Tribal Report - Addendum 1		II-113-S4	TCP-DE-0272	Avoid impacts
CRII Array Tribal Report - Addendum 1		1421-11	TCP-DE-0273	Avoid impacts
CRII Array Tribal Report - Addendum 1		1421-01	TCP-DE-0274	Avoid impacts
CRII Array Tribal Report - Addendum 1		AR530-01	TCP-DE-0275	Avoid impacts
CRII Array Tribal Report - Addendum 1		1421-05	TCP-DE-0276	Avoid impacts
CRII Array Tribal Report - Addendum 1		1421-04	TCP-DE-0277	Avoid impacts
CRII Array Tribal Report - Addendum 1		1421-03	TCP-DE-0278	Avoid impacts
CRII Array Tribal Report - Addendum 1		AR524-03	TCP-DE-0279	Avoid impacts
CRII Array Tribal Report - Addendum 1		II-117-S4	TCP-DE-0280	Avoid impacts
CRII Array Tribal Report - Addendum 1		II-125-S1	TCP-DE-0281	Avoid impacts
CRII Array Tribal Report - Addendum 1		AR544-01	TCP-DE-0282	Avoid impacts
CRII Array Tribal Report - Addendum 1		AR539-02	TCP-DE-0283	Avoid impacts
CRII Array Tribal Report - Addendum 1	Access Roads	02	TCP-DE-0284	Fencing and Monitoring
CRII Array Tribal Report - Addendum 1	Access Roads	01	TCP-DE-0285	Fencing and Monitoring
CRII Array Tribal Report - Addendum 1		II-006-S1	TCP-GT-0939	Avoid impacts
CRII Array Tribal Report - Addendum 1		II-006-S2	TCP-GT-0940	Avoid impacts

Table 2: Monitoring and Discovery Chain of Communication During Monitoring and Discovery Situations



Points of Contact for Monitoring and Discovery of Historic Properties and Tribal, Archaeological, and Historic Resources

Title or Role and Organization	Name	Email	Telephone
NEER Sr. Project Manager - Construction	Dick Rausch	dick.rausch@nee.com	(512) 970-6254 cell
NEER Site Construction Manager	Connie Rausch	connie.rausch@nexteraenergy.com	(512) 971-5450 cell
ECT Project Manager	Brian Ortman	bortman@ectinc.com	(334) 524-7334 cell
ECT Environmental Support Lead	Joshua Allen	jallen@ectinc.com	(913) 683-5762 cell
SWO Lead Tribal Cultural Specialist	Wayne Cloud	waynec@swo-nsn.gov	(605) 268-0756 cell
SWCA Lead Cultural Resources Specialist	Vincent Wray	vwray@swca.com	(720) 284-8010 cell
SWO Manager / Tribal Historic Preservation Officer	Dianne Desrosiers	dianned@swo-nsn.gov	(605) 698-3584 office
SWCA Project Manager / Sr. Archaeologist	Scott Phillips	sphillips@swca.com	(303) 570-9772 cell

Table 3: Agency Representative Contact Information for Discovery of Human Remains

Entity	Name	Role	Telephone
Tribal Historic Preservation Officer (THPO)	Dianne Desrosiers	THPO	(605) 698-3584
State Archaeological Research Center (SARC)	Katie Lamie or Renee Boen	State Archaeologists Office	(605) 394-1936 or (605) 394-1938
South Dakota State Historic Preservation Office (SHPO)	Paige Olson	Review & Compliance Coordinator	(605) 773-6004
Local Law Enforcement	Deuel County	Sheriff	(605) 874-8212
Local Law Enforcement	Grant County	Sheriff	(605) 432-5853
Local Law Enforcement	Codington County	Sheriff	(605) 882-6280

South Dakota Public Utilities Commission Meeting
March 31, 2020, at 9:30 A.M. CDT
Conference Call

NOTE: Docket participants who wish to join this meeting by conference call should contact the Commission at 605-773-3201 by 5:00 p.m. CDT on Monday, March 30, 2020, to reserve a phone line.

NOTE: To listen to the Commission Meeting live please go to the PUC's website www.puc.sd.gov and click on the LIVE link on the home page. The Commission requests persons who will only be listening to proceedings and not actively appearing in a case listen via the webcast to free phone lines for those who have to appear. The Commission meetings are archived on the PUC's website under the Commission Actions tab. Click on "Commission Meeting Archives," to access the recordings.

AGENDA OF COMMISSION MEETING

Consumer Reports

1. Status Report on Consumer Utility Inquiries (Consumer Affairs: Deb Gregg)

Administration

1. AA20-001 In the Matter of Clarification of the Commission's ETC Certification Process (Staff Analyst: Lorena Reichert; Staff Attorney: Kristen Edwards)

In Docket TC13-027, the Commission waived certain ETC requirements for years 2013, 2014, and 2015, in response to the Federal Communications Commission's changes in annual reporting requirements. Since 2016, this clarification process has been decided in dockets AA16-002, AA17-001, AA18-001, and AA19-001. In Docket AA19-001, the Commission voted to continue the waivers of ARSD 20:10:32:54 (8) and (9) for 2019, as well as waive the June 1 filing deadline as set forth in ARSD 20:10:32:52 and allow ETCs to file their annual certifications on or before July 1. On February 12, 2020, Commission staff filed a letter opening this docket and requesting clarification as to how the companies should proceed in 2020.

TODAY, shall the Commission waive certain certification requirements as found in ARSD 20:10:32:54 and the filing deadline as found in ARSD 20:10:32:52? OR, how shall the Commission proceed?

Electric

1. EL14-106 In the Matter of the Application of NorthWestern Corporation dba NorthWestern Energy for Authority to Increase its Electric Rates (Staff Analysts: Brittany Mehlhaff, Patrick Steffensen, Eric Paulson, Joseph Rezac; Staff Attorney: Amanda Reiss)

On December 19, 2014, the Commission received an application by NorthWestern Corporation dba NorthWestern Energy (NorthWestern) for approval to increase rates for electric service to customers in its South Dakota service territory by approximately $26.5 million annually or approximately 20.24% based on its test year ending September 30, 2014. On October 16, 2015, a Revised Settlement Stipulation, Joint Motion for Approval of Revised Settlement Stipulation, and staff Memorandum were

filed. On November 4, 2015, the Commission issued an Order Granting Joint Motion for Approval of Revised Settlement Stipulation and Order Approving Interim Refund Plan. On September 10, 2018, an Amendment to Revised Settlement Stipulation and Joint Motion for Approval of Amendment to Revised Settlement Stipulation were filed. On September 26, 2018, the Commission issued an Order Granting Joint Motion for Approval of Amendment to Revised Settlement Stipulation. The Stipulation requires NorthWestern to annually submit with the Commission a filing which describes the actual cost, design, and benefits of each cost of NorthWestern's Economic Development programs in the previous calendar year and the projected cost, design, and benefits of each cost to NorthWestern's Economic Development programs in the current calendar year on or before March 31st of each year. On March 23, 2020, NorthWestern filed a letter requesting the Commission's permission for a one-week grace period for filing its 2020 economic development budget and 2019 expense reports, which would allow it to file on or before April 7, 2020.

TODAY, shall the Commission grant NorthWestern's request for a one-week grace period for filing its 2020 economic development budget and 2019 expense reports, which would allow it to file on or before April 7, 2020? OR, how shall the Commission proceed?

2. EL17-055 In the Matter of the Application by Crocker Wind Farm, LLC for a Permit of a Wind Energy Facility and a 345 kV Transmission Line in Clark County, South Dakota, for Crocker Wind Farm (Staff Analysts: Darren Kearney, Jon Thurber; Staff Attorneys: Kristen Edwards, Amanda Reiss)

On December 15, 2017, Crocker Wind Farm, LLC (Crocker) filed an Application for an energy facility permit and a 345 kV Transmission Line (Project) to construct the Crocker Wind Farm, a wind energy facility located on approximately 29,331 acres of privately owned land in Clark County, South Dakota, approximately 8 miles north of Clark, South Dakota. Following a contested case process, on June 12, 2018, the Commission issued a Final Decision and Order Granting Permit to Construct Facilities (Permit). Condition 40 of the Permit requires Crocker to provide a public liaison officer, approved by the Commission. On August 9, 2018, the Commission issued an Order Approving Public Liaison Officer. The Project commenced commercial operations in November 2019. On March 19, 2020, Crocker filed a Motion to Terminate Public Liaison Services.

TODAY, shall the Commission grant Crocker's Motion to Terminate Public Liaison Services?

3. EL18-038 In the Matter of the Complaint of Energy of Utah, LLC and Fall River Solar, LLC Against Black Hills Power Inc. dba Black Hills Energy for Determination of Avoided Cost (Staff Analysts: Jon Thurber, Darren Kearney, Brittany Mehlhaff; Staff Attorney: Kristen Edwards)

On September 14, 2018, Energy of Utah and Fall River Solar, LLC (Fall River Solar) filed a Complaint against Black Hills Power Inc. dba Black Hills Energy (BHE) for determination of avoided cost pursuant to the Public Utility Regulatory Policy Act of 1978 (PURPA). The Complaint relates to a planned 80-megawatt solar facility Fall River Solar is developing in Fall River County, South Dakota. BHE filed an answer on October 4, 2018. On March 9, 2020, an Order For and Notice of Evidentiary Hearing on April 14, 2020, was issued. On March 16, 2020, BHE filed a Motion for Order Compelling Responses to Discovery Requests and For Extension of Pre-Hearing Motion Deadline.

TODAY, shall the Commission grant Black Hill Energy's Motion for Order Compelling Responses to Discovery Requests? AND, shall the Commission grant the request For Extension of Pre-Hearing Motion Deadline? OR, how shall the Commission proceed?

4. EL18-045 In the Matter of the Application of Flying Cow Wind, LLC for a Facility Permit to Construct a 345 kV Transmission Line and Associated Facilities in Deuel County (Staff Analysts: Darren Kearney, Jon Thurber; Staff Attorney: Amanda Reiss)

On October 24, 2018, the Commission received an application for a facility permit from Flying Cow Wind, LLC, (Flying Cow), a wholly-owned subsidiary of Roaring Fork Wind, LLC to construct an approximately 10.42-mile 345-kV overhead transmission line, a substation, and associated facilities (Project) in Deuel County, South Dakota. The starting point for the Project is proposed to be located in Government Lot 2 of Section 34 in Township 114N, Range 47W, Norden Township. The ending point will be in the NW ¼ of Section 22, Township 113N, Range 48 West, Scandinavia Township. The Project was acquired by Avangrid Renewables, LLC, in the Spring of 2019. On September 3, 2019, the Commission granted Flying Cow's Motion to Extend Deadline for Commission Action for six months to April 24, 2020. On March 23, 2020, Flying Cow filed a Motion to Withdraw Application.

TODAY, shall the Commission grant Flying Cow Wind, LLC's Motion to Withdraw Application?

5. EL19-027 In the Matter of the Application by Crowned Ridge Wind II, LLC for a Permit of a Wind Energy Facility in Deuel, Grant and Codington Counties (Staff Analysts: Darren Kearney, Jon Thurber, Eric Paulson; Staff Attorneys: Kristen Edwards, Amanda Reiss)

On July 9, 2019, the Commission received an Application for a Wind Energy Facility Permit (Application) from Crowned Ridge Wind II, LLC (CRW II), a subsidiary of NextEra Energy Resources, LLC. CRW II proposes to construct a wind energy facility to be located in Codington, Deuel and Grant counties, South Dakota (Project). The Project would be situated within an approximately 60,996-acre project area, located east of the city of Watertown (Project Area). The Project Area is in Waverly, Kranzburg North, Kranzburg South, Troy, Rome, Goodwin, and Havana townships. The total installed capacity of the Project would be approximately 301 megawatts of nameplate capacity. The proposed Project includes up to 132 wind turbine generators, access roads to turbines and associated facilities, underground 34.5-kV electrical collector lines, underground fiber-optic cable, a 34.5-kV to 230-kV collection substation, up to two permanent meteorological towers, and an operations and maintenance facility. The Project would interconnect to the electric grid at the Big Stone South 230-kV Substation using the Crowned Ridge II 5-mile 230-kV transmission line that was approved in Docket EL18-019 and the Crowned Ridge 34-mile generation tie line that was approved in Docket EL17-050. The Project is expected to be completed in 2020. CRW II has executed a purchase and sale agreement with Northern States Power Company dba Xcel Energy (NSP) to sell NSP the Project upon commercial operation. CRW II estimates the total construction cost to be $425 million. The Commission issued its oral decision granting a permit to construct facilities on March 17, 2020. The Permit includes a Condition that requires Applicant to provide a public liaison officer, approved by the Commission prior to commencement of construction. On March 19, 2020, Applicant filed a letter regarding its proposed public liaison officer.

TODAY, shall the Commission approve Applicant's proposal for a public liaison officer? OR, how shall the Commission proceed?

6. EL20-008 In the Matter of the Application of Black Hills Power, Inc. dba Black Hills Energy for Approval of Its 2019 Economic Development Report and 2020 Economic Development Plan (Staff Analyst: Brittany Mehlhaff; Staff Attorney: Kristen Edwards)

On February 28, 2020, the Commission received an application from Black Hills Power, Inc. dba Black Hills Energy (BHE) requesting approval of its 2019 Economic Development Report and its 2020 Economic Development Plan and Budget. BHE makes this filing in compliance with the settlement stipulation approved in Docket EL14-026. BHE provides actual economic development expenses for 2019 and information regarding the memberships, community sponsorships, and other activities the program supports as well as the 2020 budget and planned economic development activities for the year.

TODAY, shall the Commission approve Black Hills Power, Inc. dba Black Hills Energy's 2019 Economic Development Report and its 2020 Economic Development Plan?

7. EL20-011 In the Matter of the Joint Request for Service Rights Exception between NorthWestern Corporation dba NorthWestern Energy and H-D Electric Cooperative, Inc. (Staff Analyst: Lorena Reichert; Staff Attorney: Amanda Reiss)

On March 5, 2020, the Commission received a filing requesting approval of a Consent and Agreement for Electric Service between NorthWestern Corporation dba NorthWestern Energy (NorthWestern) and H-D Electric Cooperative, Inc. (H-D Electric) to allow H-D Electric to provide single-phase electric service to a streetlight located approximately 50 feet east and 75 feet south of the northwest corner of Government Lot 1 of Section 5 in Township 116 North, Range 50 West, 5th P.M., Deuel County, located in NorthWestern's territory. The main purpose of the streetlight is to improve safety at an intersection by increasing visibility.

TODAY, shall the Commission approve the requested service rights exception between NorthWestern Energy and H-D Electric Cooperative Inc.?

Natural Gas

1. NG11-003 In the Matter of the Application of NorthWestern Corporation dba NorthWestern Energy for Authority to Increase its Natural Gas Rates (Staff Analyst: Brittany Mehlhaff, Staff Attorney: Amanda Reiss)

On May 20, 2011, the Commission received an application by NorthWestern Corporation dba NorthWestern Energy (NorthWestern) for approval to increase rates for natural gas service in its South Dakota service territory by $4,123,035 annually or 7.20% based on NorthWestern's test year ending December 31, 2010. On November 7, 2011, NorthWestern and staff jointly filed a Joint Motion for Approval of Settlement Stipulation, the Settlement Stipulation, and supporting Exhibits. On November 30, 2011, the Commission issued an Order Granting Joint Motion for Approval of Settlement Stipulation. The Stipulation requires NorthWestern to annually submit with the Commission a filing which describes the actual cost, design, and benefits of each cost of NorthWestern's Economic Development programs in the previous calendar year and the projected cost, design, and benefits of each cost to NorthWestern's Economic Development programs in the current calendar year on or before March 31st of each year. On March 23, 2020, NorthWestern filed a letter requesting the Commission's permission for a one-week grace period for filing its 2020 economic development budget and 2019 expense reports, which would allow it to file on or before April 7, 2020.

TODAY, shall the Commission grant NorthWestern's request for a one-week grace period for filing its 2020 economic development budget and 2019 expense reports, which would allow it to file on or before April 7, 2020? OR, how shall the Commission proceed?

Items for Commission Discussion

Public Comment

Individuals who wish to make public comments to the commission may do so during this time. All who offer public comment are requested to let the commission know of their wish to speak when they call in to reserve a phone line. Time limits for comments may be determined at the discretion of the commission.

Announcements

1. Due to concerns surrounding COVID-19, the South Dakota Public Utilities Commission office in the State Capitol building will be closed through May 1, 2020. PUC commissioners and staff will telework during this period. If you need to reach the PUC, please email PUC@state.sd.us or call (605) 773-3201.

2. The PUC office will be closed April 10 and 13, 2020, in observance of Easter.

3. The next regular commission meeting will be Tuesday, April 14, 2020, at 9:30 a.m. CDT in Room 413 at the State Capitol Building, Pierre, South Dakota.

4. Commission meetings are scheduled for April 29 and May 12, 2020.

\s\Cindy Kemnitz .
Cindy Kemnitz
Finance Manager
puc@state.sd.us
March 24, 2020

Commission Agendas | previous page
South Dakota Public Utilities Commission Meeting
March 31, 2020, at 9:30 A.M. CDT
Telephonic – *This was the third meeting the commission held telephonically due to concerns surrounding COVID-19.*
Pierre, South Dakota

MINUTES OF THE COMMISSION MEETING

Joining the meeting by telephone were:
Commissioner Gary Hanson called the meeting to order. Present on the phone were: Commissioners: Chris Nelson and Kristie Fiegen; Commission Attorneys: Adam de Hueck and Karen Cremer; Commission Advisor: Greg Rislov; Staff Attorneys: Kristen Edwards and Amanda Reiss; Staff Analysts: Darren Kearney, Jon Thurber, Patrick Steffensen, Brittany Mehlhaff, Lorena Reichert, Joe Rezac, and Eric Paulson; Consumer Affairs Manager: Deb Gregg and Staff: Kaitlyn Baucom.

Darla Pollman Rogers, Riter, Rogers, Wattier and Northrup, LLP, representing South Dakota Telecommunications Association; Richard Coit, South Dakota Telecommunications Association ; Mollie Smith, Fredrikson & Byron, P.A., representing Crocker Wind Farm, LLC ; Bill Taylor, Taylor Law Firm, LLC, representing Fall River Solar, LLC; Brett Koenecke, May Adam Gerdes and Thompson, LLP., representing Flying Cow Wind, LLC; Brian Riniker, self ; Jason Keil, Mutch Usera and Cathy Sabers, Black Hills Power Inc. dba Black Hills Energy; Jeff Decker and Pam Bonrud, NorthWestern Corporation dba NorthWestern Energy; Matt Holtzer and Troy Kwasniewski, H-D Electric Cooperative Inc.; Amber Christenson, self; Melissa Schmidt, Geronimo Energy ; Brian Murphy, NextEra Energy Resources, LLC;and Miles Schumacher, Lynn, Jackson, Shultz and Lebrun, PC, representing Crowned Ridge Wind II, LLC.

(NOTE: For the purpose of continuity, these minutes are not necessarily in chronological order.)

Consumer Reports
1. Status Report on Consumer Utility Inquiries (Consumer Affairs Manager: Deb Gregg)

The Commission received a total of 44 contacts since the last report was prepared for the March 31, 2020 Commission meeting.

Seven contacts were related to telecommunication services, 16 contacts were related to electrical services, one contact was related to natural gas service, one contact was related to gas and electric service, two contacts were related to wireless services, one contact was related to Wind Energy, six contacts were related to the Do Not Call Registry, and ten contacts were related to issues not regulated by the PUC.

Contacts received in 2020: 271 of the 281 have been resolved.

Administration

1. AA20-001 In the Matter of Clarification of the Commission's ETC Certification Process (Staff Analyst: Lorena Reichert; Staff Attorney: Kristen Edwards)

Ms. Lorena Reichert, staff analyst, recommended that the Commission require ETCs to submit information as required by ARSD 20:10:32:54 with the exception of ARSD 20:10:32:54(8) and (9), which staff recommends the Commission waive, and that the Commission waive the June 1 filing deadline as found in ARSD 20:10:32:52, to July 1, 2020. Mr. Richard Coit, South Dakota Telecommunications Association, did not object to staff's recommendations.

Commissioner Hanson moved that the ETCs shall submit information as required by ARSD 20:10:32:54 with the exception of ARSD 20:10:32:54(8) and (9) which are waived and that the June 1 filing deadline as found in ARSD 20:10:32:52 is waived and ETCs shall file their annual certification petitions on or before July 1, 2020. Motion carried 3-0.

014225

Electric

**Dockets EL14-106 and NG11-003 were heard together .*

1. **EL14-106 In the Matter of the Application of NorthWestern Corporation dba NorthWestern Energy for Authority to Increase its Electric Rates (Staff Analysts: Brittany Mehlhaff, Patrick Steffensen, Eric Paulson, Joseph Rezac; Staff Attorney: Amanda Reiss)**

Ms. Pam Bonrud, NorthWestern Corporation dba NorthWestern Energy, asked that the Commission grant NorthWestern's request for a one-week grace period for filing its 2020 economic development budget and 2019 expense reports, which would allow it to file on or before April 7, 2020. Ms. Amanda Reiss, staff analyst, recommended that the Commission grant NorthWestern's request.

In dockets EL14-106 and NG11-003, Commissioner Nelson moved to grant NorthWestern's request for an extension for filing its 2020 economic development budget and 2019 expense reports, which would allow it to file on or before April 30, 2020. Motion carried 3-0.

2. EL17-055 In the Matter of the Application by Crocker Wind Farm, LLC for a Permit of a Wind Energy Facility and a 345 kV Transmission Line in Clark County, South Dakota, for Crocker Wind Farm (Staff Analysts: Darren Kearney, Jon Thurber; Staff Attorneys: Kristen Edwards, Amanda Reiss)

Ms. Mollie Smith, Fredrikson & Byron, P.A., representing Crocker Wind Farm, LLC (Crocker), asked that the Commission grant Crocker's Motion to Terminate Public Liaison Services. Ms. Kristen Edwards, staff attorney, recommended that the Commission grant Crocker's request.

Commissioner Fiegen moved to grant Crocker's Motion to Terminate Public Liaison Services. Motion carried 3-0.

3. EL18-038 In the Matter of the Complaint of Energy of Utah, LLC and Fall River Solar, LLC Against Black Hills Power Inc. dba Black Hills Energy for Determination of Avoided Cost (Staff Analysts: Jon Thurber, Darren Kearney, Brittany Mehlhaff; Staff Attorney: Kristen Edwards)

Ms. Cathy Sabers, Black Hills Power Inc. dba Black Hills Energy, briefed the Commission on the agreement made by the parties to postpone the evidentiary hearing originally scheduled to commence on April 14, 2020, until June 3, 2020, due to the current situation with COVID-19. Ms. Sabers further discussed the status of the discovery requests at issue in Black Hills Energy's Motion for Order Compelling Responses to Discovery Requests and recommended the Commission defer acting on the motion at this time. Mr. Bill Taylor, Taylor Law Firm, LLC, representing Fall River Solar, LLC, and Ms. Kristen Edwards, staff attorney, also discussed the hearing postponement and supported Black Hills Energy's request to defer Commission action on Black Hill's Energy's Motion.

Upon request of the parties, Commissioner Hanson deferred the docket until the next Commission meeting to be held on April 14, 2020.

4. EL18-045 In the Matter of the Application of Flying Cow Wind, LLC for a Facility Permit to Construct a 345 kV Transmission Line and Associated Facilities in Deuel County (Staff Analysts: Darren Kearney, Jon Thurber; Staff Attorney: Amanda Reiss)

Mr. Brett Koenecke, May Adam Gerdes and Thompson, LLP representing Flying Cow Wind, LLC (Flying Cow), asked that the Commission grant Flying Cow's Motion to Withdraw Application. Ms. Amanda Reiss, staff attorney, recommended that the Commission grant Flying Cow's request.

Commissioner Nelson moved to grant Flying Cow Wind, LLC's Motion to Withdraw Application without prejudice. Motion carried 3-0.

5. EL19-027 In the Matter of the Application by Crowned Ridge Wind II, LLC for a Permit of a Wind Energy Facility in Deuel, Grant and Codington Counties (Staff Analysts:

Darren Kearney, Jon Thurber, Eric Paulson; Staff Attorneys: Kristen Edwards, Amanda Reiss)

Mr. Miles Schumacher, Lynn, Jackson, Shultz and Lebrun, PC, representing Crowned Ridge Wind II, LLC (Crowned Ridge), asked that the Commission approve Crowned Ridge's proposal of hiring Brian Riniker as a public liaison officer for the Project. Ms. Amber Christensen, intervenor, supported Crowned Ridge's proposal. Amanda Reiss, staff attorney, recommended that the Commission approve the request.

Commissioner Fiegen moved to approve Applicant's proposal for a public liaison officer. Motion carried 3-0.

6. EL20-008 In the Matter of the Application of Black Hills Power, Inc. dba Black Hills Energy for Approval of Its 2019 Economic Development Report and 2020 Economic Development Plan (Staff Analyst: Brittany Mehlhaff; Staff Attorney: Kristen Edwards)

Mr. Mutch Ulser, Black Hills Power, Inc. dba Black Hills Energy (BHE), asked that the Commission approve BHE's 2019 Economic Development Report and its 2020 Economic Development Plan. Ms. Brittany Mehlhaff, staff analyst, recommended that the Commission approve BHE's request.

Commissioner Hanson moved to approve Black Hills Power, Inc. dba Black Hills Energy's 2019 Economic Development Report and its 2020 Economic Development Plan. Motion carried 3-0.

7. EL20-011 In the Matter of the Joint Request for Service Rights Exception between NorthWestern Corporation dba NorthWestern Energy and H-D Electric Cooperative, Inc. (Staff Analyst: Lorena Reichert; Staff Attorney: Amanda Reiss)

Mr. Troy Kwasniewski, H-D Electric Cooperative and Mr. Jeff Decker, NorthWestern Corporation dba NorthWestern Energy (NorthWestern), asked that the Commission approve the requested service rights exception between NorthWestern and H-D Electric Cooperative Inc. Ms. Lorena Reichert, staff analyst, recommended that the Commission approve the joint request.

Commissioner Nelson moved to approve the requested service rights exception between NorthWestern Energy and H-D Electric Cooperative Inc. Motion carried 3-0.

Natural Gas

1. NG11-003 In the Matter of the Application of NorthWestern Corporation dba NorthWestern Energy for Authority to Increase its Natural Gas Rates (Staff Analyst: Brittany Mehlhaff, Staff Attorney: Amanda Reiss)

Ms. Pam Bonrud, NorthWestern Corporation dba NorthWestern Energy, asked that the Commission grant NorthWestern's request for a one-week grace period for filing its 2020 economic development budget and 2019 expense reports, which would allow it to file on or before April 7, 2020. Ms. Amanda Reiss, staff analyst, recommended that the Commission grant NorthWestern's request.

In dockets EL14-106 and NG11-003, Commissioner Nelson moved to grant NorthWestern's request for an extension for filing its 2020 economic development budget and 2019 expense reports, which would allow it to file on or before April 30, 2020. Motion carried 3-0 .

There being no further business, at the hour of 10:30 a.m., the South Dakota Public Utilities Commission meeting adjourned.

\s\Macy Jo Murren
Macy Jo Murren
Admin Specialist
pucadmin@state.sd.us
March 31, 2020

014227

BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF SOUTH DAKOTA

IN THE MATTER OF THE APPLICATION BY CROWNED RIDGE WIND II, LLC FOR A PERMIT OF A WIND ENERGY FACILITY IN DEUEL, GRANT AND CODINGTON COUNTIES	)	**ORDER GRANTING REQUEST TO APPROVE PUBLIC LIAISON OFFICER**
	)	**EL19-027**

On July 9, 2019, the South Dakota Public Utilities Commission (Commission) received an Application for a Wind Energy Facility Permit (Application) from Crowned Ridge Wind II, LLC (CRW II), a wholly-owned indirect subsidiary of NextEra Energy Resources, LLC. CRW II proposes to construct a wind energy facility to be located in Codington, Deuel, and Grant Counties, South Dakota (Project). The Project would be situated within approximately 60,996-acres in the Waverly, Kranzburg North, Kranzburg South, Troy, Rome, Goodwin, and Havana townships. The total installed capacity of the Project would be approximately 301 megawatts of nameplate capacity. The proposed Project includes up to 132 wind turbine generators, access roads to turbines and associated facilities, underground 34.5-kV electrical collector lines, underground fiber-optic cable, a 34.5-kV to 230-kV collection substation, up to two permanent meteorological towers, and an operations and maintenance facility. The Project will interconnect to the electric grid at the Big Stone South 230-kV Substation using the Crowned Ridge II 5-mile 230-kV transmission line that was approved in Docket EL18-019 and the Crowned Ridge 34-mile generation tie line that was approved in Docket EL17-050. The Project is expected to be completed in 2020. CRW II has executed a purchase and sale agreement with Northern States Power Company dba Xcel Energy (NSP) to sell NSP the Project upon commercial operation. CRW II estimates the total construction cost to be $425 million. The Commission issued its oral decision granting a permit to construct facilities (Permit) on March 17, 2020. The Permit includes a condition that requires Applicant to provide a public liaison officer, approved by the Commission, prior to commencement of construction. On March 19, 2020, Applicant filed a letter requesting the Commission approve Brian Riniker as the public liaison officer.

The Commission has jurisdiction over this matter pursuant to SDCL Chapter 49-41B.

On March 31, 2020, at its regularly scheduled meeting, the Commission considered CRW II's request to approve Brian Riniker as the public liaison officer for the Project. Commission staff and pro se Intervenor Amber Christenson recommended approval of Brian Riniker as the public liaison officer. No other parties appeared. The Commission voted unanimously to grant the request to approve Brian Riniker as the public liaison officer. It is therefore

ORDERED, that Brian Riniker is hereby approved as the public liaison officer.

Dated at Pierre, South Dakota, this 2nd day of April 2020.

CERTIFICATE OF SERVICE

The undersigned hereby certifies that this document has been served today upon all parties of record in this docket, as listed on the docket service list, electronically or by mail.

By: Karen E. Cremer

Date: April 2, 2020

(OFFICIAL SEAL)

BY ORDER OF THE COMMISSION:

GARY HANSON, Chairman

CHRIS NELSON, Commissioner

KRISTIE FIEGEN, Commissioner

014229

BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF SOUTH DAKOTA

IN THE MATTER OF THE APPLICATION BY CROWNED RIDGE WIND II, LLC FOR A PERMIT OF A WIND ENERGY FACILITY IN DEUEL, GRANT AND CODINGTON COUNTIES	**FINAL DECISION AND ORDER GRANTING PERMIT TO CONSTRUCT FACILITY; PERMIT CONDITIONS; NOTICE OF ENTRY** **EL19-027**

APPEARANCES

Commissioners Gary Hanson, Chris Nelson, and Kristie Fiegen.

Miles Schumacher, Lynn, Jackson, Shultz and Lebrun, PC, 110 N. Minnesota Ave., Suite 400, Sioux Falls, South Dakota 57104, and Brian Murphy, NextEra Energy Resources, LLC, 700 Universe Blvd., Juno Beach, FL 33408, appeared on behalf of Applicant, Crowned Ridge Wind II, LLC.

Kristen Edwards and Amanda Reiss, 500 E. Capitol Ave., Pierre, South Dakota 57501, appeared on behalf of the South Dakota Public Utilities Commission Staff.

A.J. Swanson, Swanson P.C., 27452 482nd Ave., Canton, SD 57013, appeared on behalf of intervenors Garry Ehlebracht, Steven Greber, Mary Greber, Richard Rall, Amy Rall, and Laretta Kranz.

Allen Robish, 47278 161st St., Strandburg, SD 57265, appeared pro se.

Amber Christenson, 16217 466th Ave., Strandburg, SD 57265, appeared pro se.

Kristi Mogen, 15160 471st Ave., Twin Brooks, SD 57269, appeared pro se but did not attend the evidentiary hearings.

PROCEDURAL HISTORY

On July 9, 2019, the South Dakota Public Utilities Commission (Commission) received an Application for a Facility Permit for a wind energy facility (Application) from Crowned Ridge Wind II, LLC (Crowned Ridge Wind II or Applicant) to construct a wind energy conversion facility to be located in Deuel County, Grant County and Codington County, South Dakota (Project).[1] Also on July 9, 2019, Crowned Ridge Wind II filed the prefiled Direct Testimony and Exhibits of Jay Haley, Sarah Sappington, Mark Thompson, Tyler Wilhelm, Daryl Hart, and Richard Lampeter.

On July 11, 2019, the Commission electronically transmitted notice of the filing and the intervention deadline of September 9, 2019, to interested individuals and entities on the Commission's PUC Weekly Filings electronic listserv.

On July 11, 2019, the Commission issued a Notice of Application; Order for and Notice of Public Input Meeting; Notice of Opportunity to Apply for Party Status (Order). The Order

[1] *See* Ex. A1 (Application).

scheduled a public input meeting for August 26, 2019, at 5:30 p.m., CDT, at the Whitewood Room, Watertown Event Center, 1901 9th Ave. SW, Watertown, South Dakota.

On July 11, 2019, Crowned Ridge Wind II filed updates to it Application.

On July 16, 2019, Crowned Ridge Wind II filed copies of the Application with the Deuel, Grant, and Codington County auditors pursuant to SDCL 49-41B-5.2.

On July 29, 2019 Crowned Ridge Wind II filed an Affidavit of Landowners Mailings pursuant to SDCL 49-41B-5.2.

On July 31, 2019, the Commission issued an Order Assessing Filing Fee; Order Authorizing Executive Director to Enter into Consulting Contracts; Order Granting Party Status (Amber Christenson, Kristi Mogen, Allen Robish).

On August 6, 2019, Crowned Ridge Wind II requested that pages 3-6 of the Intervenors' Application for Party Status filed on August 5, 2019, be redacted due to confidentiality concerns.

On August 26, 2019, the Commission issued an Order Granting Party Status (Garry Ehlebracht, Steven Greber, Mary Greber, Richard Rall, Amy Rall, and Laretta Kranz).

On August 26, 2019, a public input meeting was held as noticed at the Whitewood Room, Watertown Event Center, 1901 9th Ave. SW, Watertown, South Dakota.

On September 10, 2019, Staff filed a Motion for Adoption of Procedural Schedule.

On September 11, 2019, Affidavits of Publication were filed by Staff confirming that the Notice of Public Meeting was published in the *Watertown Public Opinion* on July 24, August 7, and August 21, 2019; in the *Grant County Review* on July 24, August 7, and August 21, 2019; in the *Clear Lake Courier* on July 24, August 7, and August 21, 2019; and in the *South Shore Gazette* on July 25, August 8, and August 22, 2019.

On September 20, 2019, the Commission issued an Order Granting Motion Establishing Procedural Schedule.

On September 20, 2019, the Commission issued an Order Denying Request for Confidentiality.

On September 20, 2019, Crowned Ridge Wind II filed the prefiled Supplemental Testimony and Exhibits of Mark Thompson, Jay Haley, Tyler Wilhelm, Dr. Christopher Ollson, Daryl Hart, Sarah Sappington, Michael MaRous, and Dr. Robert McCunney, and on October 21, 2019, filed Corrected Direct Testimony and Exhibits of Sarah Sappington.

On October 1, 2019, the Commission issued an Order for and Notice of Evidentiary Hearing scheduling the evidentiary hearing for February 4-7, 2020.

On December 2, 2019, the Commission issued an Order Granting Motion to Appear Telephonically in response to a November 18, 2019, request by the Intervenor.

On December 9, 2019, Staff filed the prefiled Direct Testimony and Exhibits of David Hessler, Darren Kearney, Hilary Meyer Morey, David Lawrence, and Paige Olson.

On December 12, 2019, Intervenors filed the prefiled testimony of Garry Ehlebracht,

Steven Greber, Amy Rall, and Laretta Kranz. On January 27, 2020, Intervenors filed their Exhibits.

On January 8, 2020, Crowned Ridge Wind II filed the prefiled Rebuttal Testimony and Exhibits of Mark Thompson, Jay Haley, Tyler Wilhelm, Richard Lampeter, Sarah Sappington, Michael Marous, and Dr. Christopher Ollson.

On January 22, 2020, the Commission issued an Order for and Notice of Motion Hearing to hear Crowned Ridge Wind II's Motion to Strike prior to the start of the February 4, 2020, evidentiary hearing. On February 14, 2020, the Commission issued an Order Granting, In Part, Motion to Strike.

On January 23, 2020, Staff filed the prefiled Supplemental Testimony and Exhibits of David Lawrence.

On January 29 and January 30, 2020, pro se Intervenor Christenson filed her prefiled Exhibits.[2]

On February 4, 2020, the evidentiary hearing commenced as scheduled, and concluded on February 6, 2020.

On February 14, 2020, the Commission issued an Order Setting Post-Hearing Briefing Schedule and Decision Date.

On February 27 and March 2, 2020, post-hearing briefs were filed by Crowned Ridge Wind II, Staff, pro se Intervenors, and Intervenors. On March 16, 2020, Intervenors filed a written closing argument.

On March 17, 2020, at its regularly scheduled meeting, the parties made oral arguments. After questions of the parties by the Commissioners and public discussion among the Commissioners, the Commission voted unanimously to grant a permit to construct the Project to Crowned Ridge Wind II, subject to the approved Permit Conditions.

Having considered the evidence of record, applicable law, and the briefs and arguments of the parties, the Commission makes the following Findings of Fact, Conclusions of Law, and Final Decision and Order Granting Permit to Construct Facility:

FINDINGS OF FACT

I. PROCEDURAL FINDINGS.

1. The Procedural History set forth above is hereby incorporated by reference in its entirety in these Procedural Findings. The procedural findings set forth in the Procedural History are a substantially complete and accurate description of the material documents filed in this docket and the proceedings conducted and decisions rendered by the Commission in this matter.

II. PARTIES.

2. Crowned Ridge Wind II is a wholly-owned, indirect subsidiary of NextEra Energy Resources, LLC (NextEra).[3] NextEra, through its affiliates, generates over 19,000 MWs in 29

2 Pro se Intervenors Christenson, Robish, and Mogen did not file prefiled testimony. Robish and Mogen did not file exhibits.

3 Ex. A1 at 1 (Application).

states and Canada.[4]

3. Garry Ehlebracht, Steven Greber, Mary Greber, Richard Rall, Amy Rall, and Laretta Kranz (collectively, Intervenors) and Amber Christenson, Allen Robish, and Kristi Mogen (collectively, pro se Intervenors) were granted party status.

4. The South Dakota Public Utilities Commission staff (Staff) fully participated as a party in this matter, in accordance with SDCL 49-41B-17(1).

III. PROJECT DESCRIPTION.

5. The proposed project is an up to 300.6 MW wind facility to be located in Codington County, Deuel County, and Grant County, South Dakota (Project).[5] The Project would be situated within approximately 60,996-acres in the townships of Waverly, Kranzburg North, Kranzburg South, Troy, Rome, Goodwin, and Havana, South Dakota (Project Area) and will include the following: (i) up to 132 wind turbine generators with 117 General Electric (GE) 2.3 turbines and 15 GE 2.1 turbines; (ii) access roads to turbines and associated facilities; (iii) underground 34.5-kilovolt (kV) electrical collector lines connecting the turbines to the collector substation; (iv) underground fiber-optic cable for turbine communications co-located with the collector lines; (v) the low-side of a 34.5 to 230-kV collector substation; (vi) two permanent meteorological tower; (vii) an operations and maintenance facility; and (viii) temporary construction areas, including laydown and batch plant areas.[6] The estimated construction cost associated with the wind facility is approximately $425 million.[7] Fluctuations in Project costs could be as much as 20% percent, dependent on final micrositing and MISO interconnection costs.[8] The Project will utilize the Crowned Ridge II 5-mile generation tie line and the Crowned Ridge Wind I's 34-mile 230-kV generation tie line and a new reactive power compensation substation[9] to transmit the generation from the Project's collector substation to the Project's point of interconnection located at the Big Stone South 230-kV Substation, which is owned by Otter Tail Power Company.[10] Applicant has no plans for future expansion of the Project.[11]

6. As a result of demand for the facility, Applicant has executed a purchase and sales agreement (PSA) with Northern States Power Company (NSP) and will transfer the Project, including this Permit, to NSP prior to commercial operations.[12] The commercial operation date for the Project is projected to be in the fourth quarter of 2020.[13]

7. Applicant submitted testimony explaining that it may defer the construction of 100 MWs based on the results of MISO and SPP interconnection studies and costs.[14] Applicant may defer the 100 MWs up to four years, with the understanding that if Applicant decides to construct

[4] Ex. A5 at 1 (Wilhelm Direct Testimony).
[5] Ex. A1 at 1 (Application); Ex A1-A (Figures) and Ex. A11-2 (Maps of 200 MW and 100 MW Deferral); Ex A27-2 (Updated Land Status Map for 200 MW and 100 MW Deferral).
[6] Ex. A1 at 1, 18-26 (Application); Ex. A1-A (Figures 4a, 4b, and 5); Ex. A27-2 (Updated Land Status Map for 200 MW and 100 MW Deferral).
[7] Ex. A1 at 18 (Application).
[8] *Id.* at 19.
[9] The 5-mile generation tie line was approved in Docket No. EL18-018, while the 34-mile transmission gen tie line and reactive compensation substation were approved in Docket No. EL17-050.
[10] Ex. A1 at 1 (Application).
[11] *Id.* at 106.
[12] *Id.* at 1-2, 15; Ex. A6 at 3 (Hart Direct Testimony).
[13] Evid. Hrg. Tr. at 31 (Wilhelm) (February 4, 2020).
[14] Ex. A13 at 2-4 (Hart Supplemental Testimony); Ex. A13-2 (Maps of 200 MW and 100 MW Deferral); Ex A27-2 (Updated Land Status Map for 200 MW and 100 MW Deferral); Evid. Hrg. Tr. at 112-113, 128-130 (Hart) (February 4, 2020).

after four years, it will need to certify to the Commission that the 100 MW array continues to comply with the conditions of the Facility Permit.[15]

8. Applicant has entered into lease and easement agreements with private landowners within the Project Area for the placement of Project infrastructure.[16] Applicant anticipates that the life of the Project will be approximately 25 years, which is consistent with the Project's contracted term.[17] At the end of the Project's contracted life there may be opportunities to extend the life of the Project by repowering the Project through retrofitting the turbines and power system with upgrades based on new technology, which may allow the wind farm to produce efficiently and successfully for many more years.[18]

9. In the event the Project's contracted life is not extended, the record demonstrates that Applicant has appropriate and reasonable plans for decommissioning.[19] The Project will be decommissioned in accordance with applicable state and county regulations.[20] Applicant has agreed to Permit Condition No. 33 for purposes of decommissioning the Project.[21]

10. The record demonstrates that Crowned Ridge Wind II submitted substantial evidence on the potential cumulative impacts of the Project, and that the Project will not have a significant impact.[22]

IV. APPLICABLE STATUTES AND REGULATIONS FOR A WIND ENERGY FACILITY PERMIT.

13. The following South Dakota statutes are applicable: SDCL 49-41B-1, 49-41B-2, 49-41B-4, 49-41B-5.2, 49-41B-11 through 49-41B-19.1, 49-41B-22, 49-41B-25, 49-41B-25.2, 49-41B-26, 49-41B-35, 49-41B-36, 49-41B-39, and applicable provisions of SDCL Chapters 1-26 and 15-6.

14. The following South Dakota administrative rules are applicable: ARSD Chapters 20:10:01 and 20:10:22.

15. Pursuant to SDCL 49-41B-22, Applicant has the burden of proof to establish that:

a) The proposed facility will comply with all applicable laws and rules;

b) The facility will not pose a threat of serious injury to the environment nor to the social and economic condition of inhabitants or expected inhabitants in the siting area. An applicant for an electric transmission line, a solar energy facility, or a wind energy facility that holds a conditional use permit from the applicable local units of government is determined not to threaten the social and economic

[15] Ex. A13 at 3 (Hart Supplemental Testimony); Ex A27-2 (Updated Land Status Map for 200 MW and 100 MW Deferral); 49-41B-27.
[16] Ex. A1 at 27, 107 (Application) and Ex. A17 at 7 (Wilhelm Supplemental Testimony).
[17] Ex. A1 at 107 (Application).
[18] *Id.*
[19] *Id.* at Appendix N and Ex. A4 at 9-11 (Thompson Direct Testimony).
[20] Ex. A1 at 107 (Application).
[21] Ex. S7, Permit Conditions No. 33.
[22] Ex. A1-I (Sound Modeling Report) and Ex. A1-J (Shadow Flicker Modeling Report); Exs. A2; A14; A21 (Haley Direct, Supplemental and Rebuttal Testimony); Ex. A12-2 (Updated Sound Study); Ex. A12-3 (Updated Shadow Flicker Study); Ex. A12-1 through Ex. A12-4 (Supplemental Testimony Sound and Shadow Flicker Studies); Ex. A21-1 through Ex. A21-3; and Ex. A28 and Ex. 29 (Rebuttal Testimony Sound and Shadow Flicker Results).

condition of inhabitants or expected inhabitants in the siting area;

c) The facility will not substantially impair the health, safety or welfare of the inhabitants; and

d) The facility will not unduly interfere with the orderly development of the region with due consideration having been given the views of governing bodies of affected local units of government. An applicant for an electric transmission line, a solar energy facility, or a wind energy facility that holds a conditional use permit from the applicable local units of government is in compliance with this subdivision.

16. SDCL 49-41B-25 provides that the Commission shall make a finding that the construction of the facility meets all of the requirements of Chapter 49-41B.

17. There is sufficient evidence on the record for the Commission to assess the proposed Project using the criteria set forth above.

V. SATISFACTION OF REQUIREMENTS FOR THE ISSUANCE OF A WIND ENERGY FACILITY PERMIT.

A. The proposed facility will comply with all applicable laws and rules.

18. The evidence submitted by Crowned Ridge Wind II demonstrates that the Project will comply with applicable laws and rules.[23] Applicant committed that it will obtain all governmental permits which reasonably may be required by any township, county, state agency, federal agency, or any other governmental unit for the construction and operation activity of the Project prior to engaging in the particular activity covered by that permit.[24]

19. The record demonstrates that construction and operation of the Project, subject to the Permit Conditions, meets all applicable requirements of SDCL Chapter 49-41B and ARSD Chapter 20:10:22.[25]

B. The facility will not pose a threat of serious injury to the environment nor to the social and economic condition of inhabitants or expected inhabitants in the siting area.

20. Applicant holds a Conditional Use Permit (CUP) from both Grant County and Codington County, and a Special Exception Permit (SEP) from Deuel County,[26] which pursuant

[23] Ex. A1 at 72-76, 111-112 (Application) and Ex. A5 at 8-11 (Wilhelm Direct Testimony).
[24] At the evidentiary hearing, pro se Intervenor Christenson questioned whether Applicant was in compliance with the Grant County Ordinance in effect at the time Grant County voted to approve the Project or the Ordinance that was made effective after the County's vote to approve the Project. Applicant testified that Grant County has indicated it intends to apply the Ordinance made effective shortly after approval of the CUP for the Project. Evid. Hrg. Tr. at 47-49 (Wilhelm) (February 4, 2020). The record in this proceeding shows that Crowned Ridge Wind II complies with both versions of the Grant County Ordinance – the one in effect at the time of the approval of the Project by Grant County, and the one made effective shortly after the vote. Evid. Hrg. Tr. at 217-218, 233-234, 237-239 (Haley) (February 4, 2020); Exs. A2; A14; A21 (Haley Direct, Supplemental and Rebuttal Testimony); Ex. A14-1 through Ex. A14-4 (Supplemental Testimony Sound and Shadow Flicker Studies); Ex. A21-1 through Ex. A21-3; and Ex. A28 and Ex. 29 (Rebuttal Testimony Sound and Shadow Flicker Results); and Ex. AC-19. Therefore, the record shows that Crowned Ridge Wind II will be in compliance with applicable laws, including the Grant County Ordinance.
[25] Ex. A1 through Ex. A29 (Application, Testimony, Exhibits); Ex. S1 (Kearney Direct Testimony) and Ex. S7 (Stipulated Conditions).
[26] Ex. A5 at 7-10 (Wilhelm Direct Testimony) Ex. A1-K (County Use Permits).

to SDCL 49-41B-22(2), demonstrates that the Project does not pose a threat of serious injury to the social and economic condition of inhabitants or expected inhabitants in the siting area. The following is evidence that the Project does not pose a threat of serious injury to the environment.

1. *Environment*.

21. The evidence demonstrates that the Project does not pose a threat of serious injury to the environment in the Project Area.[27] The evidence also shows that Crowned Ridge Wind II will implement reasonable avoidance and mitigation measures, as well as commitments, to further limit potential environmental impacts.[28]

22. With respect to geological resources, the evidence shows that construction of the Project will not pose a threat of serious injury to these resources.[29] The risk of seismic activity in the vicinity of the Project Area is "low" according to data from the South Dakota Department of Environment and Natural Resources.[30] The evidence further shows that the impact to geological resources from the Project will be minimal.[31]

23. The evidence demonstrates that the Project does not pose a threat of serious injury to soil resources, including prime farmland.[32] The Project will only impact approximately 1,940.2-acres of the 60,995-acre Project Area during construction, and only 76.2 acres on a permanent basis.[33] Table 11.3 of the Application sets forth additional detail on the temporary and permanent impacts from the Project, broken down by land cover type.[34] During and after construction a number of mitigation measures, including best management practices (BMP), a Storm Water Pollution Prevention Plan (SWPPP), and a Spill Prevention, Control, and Countermeasures Plan (SPCCP), will be implemented to minimize the impacts to soil resources.[35] Applicant has committed that during construction, it will protect topsoil and minimize soil erosion. Soil areas disturbed during construction will be decompacted and returned to preconstruction contours to the extent practicable and in accordance with landowner agreements.[36]

24. The evidence also demonstrates that the Project does not pose a threat of serious injury to hydrological resources.[37] The evidence shows there will only be limited and temporary impacts to: (i) groundwater resources; (ii) existing surface water resources; and (iii) current and planned water uses.[38] To minimize impacts, Applicant has committed to implement BMPs, a SWPPP, and SPCCP to mitigate impacts to hydrology resources.[39] The evidence also shows there will be no impact to flood storage areas.[40] Applicant provided an estimate of the amount of water it will likely use during construction, and has committed to obtain any necessary permits for water sources used during construction and operations.[41]

25. The evidence demonstrates that the Project does not pose a threat of serious injury

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[27] Ex. A1 at 28-90 (Application); Ex. A3 at 3-14 (Sappington Direct Testimony); Ex. A18 at 3-5 (Sappington Supplemental Testimony); Ex. A24 at 3-5 (Sappington Rebuttal Testimony); Ex. S7 (Stipulated Conditions); Evid. Hrg. Tr. at 376-378 (Sappington) (February 5, 2020).
[28] *Id.*
[29] Ex. A1 at 31-35 (Application) and Ex. A-A1, Figures 9a, 9b, and 10 (Maps).
[30] Ex. A1 at 33, 37 (Application).
[31] Ex. A1 at 34-35 (Application).
[32] Ex. A1 at 36-39 (Application) and Ex. A1-A, Figure 11 (Maps).
[33] Ex. A1 at 36-37 and 46-47 (Application).
[34] *Id.* at 46-47.
[35] *Id.* at 37, 88.
[36] *Id.* at 37.
[37] *Id.* at 38-44; Ex. A1-A, Figure 12.
[38] Ex. A1 at 38-44 (Application).
[39] *Id.*
[40] *Id.* at 43.
[41] *Id.* at 39,40, 41, 44.

to terrestrial ecosystems.[42] Specifically, there are no anticipated impacts to federally or state-listed plants.[43] The Project will not involve any major tree-clearing.[44] Also, Crowned Ridge Wind II has designed the Project to minimize, or, if possible, avoid infrastructure being site in wetlands.[45] To minimize temporary impacts to vegetation due to construction, Applicant has also committed to implement BMP, a SWPPP, and SPCCP.[46] While the Project Area contains U.S. Fish and Wildlife Service (USFWS) wetland and wetland/grassland combination easements, the Project has been designed to avoid protected basins such that no surface impacts to protected basins are expected.[47] Applicant will avoid impacts to USFWS grasslands and grassland-wetland combination easements, as well as avoid impacts to native grassland to the extent practicable.[48] The BMPs will include re-vegetation practices and erosion control devices.[49] Applicant has also agreed to compensate landowners for crop damage.[50] Pursuant to Permit Condition No. 16, Applicant will develop and implement a plan to control noxious weeds.

26. The evidence demonstrates that the Project does not pose a threat of serious injury to wildlife.[51] Applicant has conducted extensive studies and consulted relevant studies to understand the potential impact to wildlife.[52] Applicant will implement an avoidance, minimization, and mitigation approach to lessen the impact the Project has on wildlife, including mammals and avian species.[53] Crowned Ridge Wind II also agreed to Staff's condition on the monitoring and mitigation of impacts to Whooping Cranes, which is included as Permit Condition No. 46.[54] There will be no turbines or other infrastructure sited on Waterfowl Production Areas, Game Production Areas, walk-in areas, grassland, wetland/grassland combination easements, or on Farmers Home Administration Easements.[55] Pursuant to Permit Condition No. 30, Applicant will file a Bird and Bat Conservation Strategy prior to the start of construction. Also, Staff witness Ms. Hilary Meyer Moyer testified that Applicant had appropriately coordinated with the SD GF&P on the impact of the Project on wildlife.[56]

27. The Commission finds, and the parties agree, that the effects of wind turbines on prairie grouse leks is still not sufficiently understood.[57] Therefore, to add to the scientific knowledge on the impact operating wind turbines may have on prairie grouse leks, if any, the Commission adopts Permit Condition No. 49.[58]

28. Applicant committed to file a Wildlife Conservation Strategy, which includes both direct and indirect effects as well as the wildlife mitigations measures set forth in the Application, prior to the start of construction.[59]

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[42] Ex. A1 at 44-70 (Application); Ex. A1-F (Dakota Skipper and Poweshiek Skipperrling Survey); Ex. A1-G (2017-2018 Raptor Nest Survey Report); Ex. A1-H (Avian Use Survey Report); Ex. A1-E (Bat Habitat Assessment Report); and Ex. A1-D (Bat Acoustic Survey Report).
[43] Ex. A1 at 47 (Application).
[44] *Id*. at 50.
[45] *Id*.
[46] *Id*. at 87-89.
[47] *Id*. at 43.
[48] *Id.* at 14.
[49] *Id.*
[50] *Id.*at 47; Ex. A3 at 6 (Sappington Direct Testimony).
[51] Ex. A1 at 50-67 (Application).
[52] Ex. A1 at 50-67 (Application); Ex. A1-F (Dakota Skipper and Poweshiek Skipperrling Survey); Ex. A1-G (20172018 Raptor Nest Survey Report); Ex. A1-H (Avian Use Survey Report); Ex. A1-E (Bat Habitat Assessment Report); and Ex. A1-D (Bat Acoustic Survey Report); Ex. A3 at 3-5 (Sappington Direct Testimony).
[53] Ex. A1 at 63-64, 66-67 (Application).
[54] Evid. Hrg. Tr. at 406 (February 5, 2020).
[55] Ex. A1 at 77 (Application).
[56] Evid. Hrg. Tr. at 540-541, 544 (Meyer Morey) (February 6, 2020).
[57] S3; Evid. Hrg. Tr. at 540-541, 544 (Meyer Morey) (February 6, 2020).
[58] Following the evidentiary hearing, Staff, Applicant, and SD GF&P agreed on February 25, 2020, to Permit Condition No. 49.
[59] Ex. A1 at 67; S1, page 103 of Exhibit _DK-2.

29. The evidence demonstrates that the Project does not pose a threat of serious injury to aquatic ecosystems.[60] Similarly, the evidence demonstrates that the Project does not pose a threat of serious injury to land use and will comply with local controls.[61] Applicant has coordinated with landowners to locate infrastructure in a manner that minimizes the impact to their land uses.[62] The evidence further demonstrates that there are no anticipated material impacts to existing air and water quality, and the Project will comply with applicable air and water quality standards and regulations.[63] Applicant also committed to implement a number of BMPs to mitigate the impact of the Project on air and water quality.[64]

30. Applicant will install and use lighting required by the Federal Aviation Administration (FAA).[65] Applicant will equip the Project with a FAA-approved Aircraft Detection Lighting System (ADLS) to minimize visual impact of the Project starting with the commercial operation date and for the life of the Project, subject to normal maintenance and forced outages.[66]

31. Applicant has undertaken extensive study, surveys, and consultation with applicable tribes to identify and avoid sites of cultural, archaeological, and historical importance.[67] For example, Applicant's Records Search per the South Dakota State Historic Preservation Office (SD SHPO) guidance identified 22 previously documented archaeological sites, 12 previously documented historic bridges, 54 previously documented standing historic structures, and 3 previously documented cemeteries that have been recorded inside and within 1 mile of the Project Area.[68] As a mitigation measure, Applicant will avoid direct physical impacts to National Register of Historic Places listed sites.[69]

32. Applicant also consulted with the Sisseton Wahpeton Oyate, Yankton Sioux, and Spirit Lake Nation tribes, who were selected by the affected tribes to represent all applicable tribes, to identify significant tribal resources, and Applicant included them as part of the survey field team.[70] Applicant further consulted with the SD SHPO on the type and content of surveys.[71] Applicant agrees to avoid direct impacts to cultural resources not previously identified and evaluated or notify the Commission and the SD SHPO if avoidance cannot be achieved so to coordinate minimization and/or treatment measures.[72] Applicant will also develop a plan to address any unanticipated discovery of cultural resources, consistent with SDCL 34-27-25, 34-27-26, and 34-27-28.[73] Applicant will file with the Commission any amendments to the Level III Archaeological survey for, among other facilities, access roads, crane paths, and collection lines prior to commercial operation.[74] Further, Applicant will implement specific avoidance, minimization, and mitigation measures for Traditional Cultural Properties.[75]

33. Based on the record in this proceeding and the Permit Conditions, Applicant has

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[60] Ex. A1 at 70 (Application).
[61] Ex. A1 at 71-86 (Application); Ex. A1-A (Figures); Ex. A5 at 7-13 (Wilhelm Direct Testimony); Exs. A2; A14; A21 (Haley Direct, Supplemental and Rebuttal Testimony); Ex. A14-1 through Ex. A14-4 (Supplemental Testimony Sound and Shadow Flicker Studies); Ex. A21-1 through Ex. A21-3; and Ex. A28 and Ex. 29 (Rebuttal Testimony Sound and Shadow Flicker Results).
[62] Ex. A5 at 13 (Wilhelm Direct Testimony).
[63] Ex. A1 at 86-90 (Application).
[64] *Id.* at 87-90.
[65] *Id.* at 14, 21, 85.
[66] *Id.* at 21, 85; Evid. Hrg. Tr. at 77 (Wilhelm) (February 4, 2020); Permit Conditions No. 34.
[67] Ex. A1 at 100-105 (Application); Ex. A3 at 14-16 (Sappington Direct Testimony); Evid. Hrg. Tr. at 377 (Sappington) (February 5, 2020); Evid. Hrg. Tr. at 535, 537-538 (Olson) (February 5, 2020).
[68] Ex. A1 at 101 (Application); Ex. A1-O (Cultural Confidential).
[69] Ex. A1 at 104 (Application).
[70] Ex. A1 at 103 (Application); Ex. A at 15-16 (Sappington Direct Testimony).
[71] Ex. A1 at 108-109 (Application); Ex. A3 at 16 (Sappington Direct Testimony); Ex. A1-B (Agency Coordination).
[72] Permit Conditions No. 11.
[73] Permit Conditions No. 12.
[74] Permit Conditions No. 13.
[75] Permit Conditions No. 38.

demonstrated that it will minimize or avoid impacts to cultural resources.

2. Social and Economic.

34. Applicant has been developing the Project for 10 years through an iterative process to identify the Project Area.[76] During this time, Applicant worked closely with federal and state agencies, landowners, and tribal and local governments to properly design and site the infrastructure for the Project.[77] Applicant has all land rights needed to construct and operate the Project.[78]

35. Applicant has demonstrated that the Project does not pose a threat of serious injury to the community.[79] The Project will only permanently impact approximately 76 acres of land, with approximately 57 acres of prime farmland.[80]

36. Applicant has committed to coordinate with first responders and provide them with Applicant's safety plan.[81]

37. Applicant has demonstrated that the construction and operation of the Project will result in benefits to South Dakota and local economies through payment of property taxes and lease payments.[82] There will be approximately 250 temporary workers used during the construction or the Project, and 7-12 permanent workers in South Dakota to conduct operation and maintenance activities, including 10 wind technicians, 1 lead wind technician, and 1 site manager.[83]

38. The record also demonstrates that the Project is not expected to adversely impact communication systems, such as microwave, AM, FM, cellular, TV, and aviation towers.[84] Also, pursuant to Permit Condition No. 24, Applicant has agreed to take action to minimize interference the Project causes to radio, television, and other licensed communication transmitting or receiving equipment.

39. The record demonstrates that Applicant will avoid and/or minimize impacts to transportation.[85] Applicant has committed to coordinate with the South Dakota Department of Transportation (SDDOT), Codington County, Deuel County, and Grant County, and Project Area townships to manage construction traffic, and to ensure that equipment and components are delivered safely to the Project. Applicant will also obtain SDDOT Highway Access and Utility Permits prior to construction, and contractors will be required to obtain applicable over height or overweight haul permits. County road permits required for right-of-way occupancy, utility crossings, road approaches, and overweight loads will be obtained by the Applicant from Codington County, Deuel County, and Grant County prior to beginning construction activities for which the permit is required.[86] Permit Conditions Nos. 7 and 8 also require Crowned Ridge Wind

[76] Ex. A1 at 2, 26-28 (Application).
[77] Ex. A1 at 2, 26-28, 86; Ex. A5 at 4-12 (Wilhelm Direct Testimony).
[78] Ex. A17 at 7 (Wilhelm Supplemental Testimony); Ex. A27-2 (Updated Land Status Map for 200 MW and 100 MW Deferral).
[79] Ex. A1 at 90-100, 105-108 (Application); Ex. A1-L (Property Value Effects Studies); Ex. A1-M (Telecommunication Studies); Ex. A14 (Marous Supplemental Testimony); Ex. A14-1 (Market Impact Analysis) Ex. A22 (Marous Rebuttal Testimony); Ex. S5 and Ex. S6 (Direct and Supplemental Testimony of Lawrence).
[80] Ex. A1 at 37 (Application).
[81] Ex. A1 at 98 (Application).
[82] Ex. A1 at 17, 93 (Application); Ex. A5 at 12-13 (Wilhelm Direct Testimony); and Ex. A6 at 3 (Hart Direct Testimony); Ex A6-2 (Allocation of Tax Revenues).
[83] Ex. A1 at 106 (Application); Ex. A4 at 8-9 (Thompson Direct Testimony).
[84] Ex. A1 at 99-100 (Application) and A1-M (Telecommunication Study).
[85] Ex. A1 at 98-99 (Application).
[86] *Id.* at 24.

II to obtain applicable road use agreements and implement specific road protection practices. Permit Condition No. 9 requires Crowned Ridge Wind II to develop a Temporary Traffic Control Plan in accordance with the most recent edition of the Manual on Uniform Traffic Control Devices as published by the Federal Highway Administration.

40. The record demonstrates that the Project will not adversely impact property values.[87] Applicant's witness, Mr. Michael MaRous, a South Dakota State Certified General Appraiser and a certified Member Appraisal Institute appraiser with extensive experience evaluating the impact of wind turbines on property values, conducted a Market Analysis to analyze the potential impact of the Project on the value of the surrounding properties and found no market data indicating property values will be adversely impacted due to proximity to the Project.[88] This conclusion is also consistent with the Commission's recent findings regarding property values in the Prevailing Wind Park, Dakota Range I and II, Crocker, Deuel Harvest, and Crowned Ridge I wind farm proceedings.[89]

41. Staff witness, Mr. David Lawrence, also a South Dakota State Certified General Appraiser and a certified Member Appraisal Institute appraiser conducted his own analysis. Mr. Lawrence analyzed 16 sale transactions of rural residences in proximity to a wind turbine.[90] Mr. Lawrence testified that he found one property sale that was negatively impacted by the planned wind farm.[91] The discovery of this one negatively impacted property sale did not change his overall opinion that the selling prices of rural residences are not been influenced by the presence of a wind tower or project.[92]

42. At the hearing, Mr. Lawrence testified that the sales data did not support the comments about negative impacts on property value but rather it showed that these properties do sell within the range of the market.[93] One property within proximity to a wind farm even sold at a six percent appreciation rate.[94]

43. The FAA has issued a Determination of No Hazard for all but one of the Project's proposed turbine sites.[95] For that one turbine (CR2 Alt. 8), Applicant has decided to hold off on filing for the Determination of No Hazard with the FAA until it becomes clearer with the development of future projects to avoid potential radar saturation in that area.[96]

44. In prior contested siting dockets, the Commission has considered the following socioeconomic issues in evaluating whether a project would pose a threat of serious injury to the social and economic condition: temporary and permanent jobs; tax revenue; and impacts on

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[87] Ex. A1 at 95 (Application) and Ex. A1-L (Property Value Effects Studies); Ex. A14 (Marous Supplemental Testimony); Ex. A14-1 (Market Impact Analysis); Ex. A22 (Marous Rebuttal Testimony); Ex. S5 and Ex. S6 (Direct and Supplemental Testimony of Lawrence).
[88] A16 (MaRous Supplemental); A22 (MaRous Rebuttal).
[89] *See In the Matter of the Application by Prevailing Wind Park, LLC for a Permit of a Wind Energy Facility in Bon Homme County, Charles Mix County and Hutchinson County, South Dakota, for the Prevailing Wind Park Project*, Docket EL18-026, Final Decision and Order Granting Permit to Construct Facilities and Notice of Entry (Nov. 28, 2018); *In the Matter of the Application by Dakota Range I, LLC and Dakota Range II, LLC for a Permit of a Wind Energy Facility in Grant County and Codington County, South Dakota, for the Dakota Range Wind Project*, Docket EL18-003, Final Decision and Order Granting Permit to Construct Wind Energy Facility; Notice of Entry (July 23, 2018); *In the Matter of the Application by Crocker Wind Farm, LLC for a Permit of a Wind Energy Facility and a 345 kV Transmission Line in Clark County, South Dakota, for Crocker Wind Farm*, Docket EL17-055, Final Decision and Order Granting Permit to Construct Facilities and Notice of Entry (June 12, 2018); *In the Matter of the Application of Deuel Harvest Wind Energy, LLC*, Docket No. EL18-053, Final Decision and Order (May 30, 2019); *In the Matter of the Application by Crowned Ridge Wind, LLC for a Permit of a Wind Energy Facility in Grant and Codington Counties,* Docket No. EL19-003, Final Decision and Order (July 26, 2019); *see also* Ex. S8 (Surrebuttal Testimony of David Lawrence in Docket EL18-003).
[90] Ex. S5 (Lawrence Direct); S6 (Lawrence Supplemental).
[91] *Id.*
[92] Ex. S6 at 2-3.
[93] Evid. Hrg. Tr. at 474 (Lawrence) (February 5, 2020).
[94] Evid. Hrg. Tr. at 473 (Lawrence) (February 5, 2020).
[95] Evid. Hrg. Tr. at 75-77 (Wilhelm) (February 4, 2020).
[96] *Id.*

commercial, agricultural, and industrial sectors, housing, land values, labor market, health facilities, energy, sewage and water, solid waste management facilities, fire protection, law enforcement, recreational facilities, schools, transportation facilities, and other community and government facilities.[97]

45. The record demonstrates that the Project will not pose a threat of serious injury to the social and economic condition of inhabitants or expected inhabitants in the siting area.

C. <u>The facility will not substantially impair the health, safety or welfare of the inhabitants</u>.

46. The record demonstrates that Applicant has appropriately minimized the sound level produced from the Project to the following: (1) no more than 45 dBA at any non-participants' residence and (2) no more than 50 dBA at any participants' residence.[98] These sound levels were modeled using the following conservative assumptions: (1) the wind turbines were assumed to be operating at maximum sound emission levels; (2) a 2 dBA adder was applied to the wind turbines sound emission levels; (3) the receptors were assumed to be downwind of the wind turbines; and (4) the atmospheric conditions were assumed to be the most favorable for sound to be transmitted.[99] The Project will also not result in sound above 50 dBA at any non-participants property boundaries for those residences in Codington County.[100] Applicant modelled sound levels with consideration of the cumulative sound impacts from Deuel Harvest and Crowned Ridge Wind I wind projects.[101] Further, Applicant agreed to Permit Condition No. 27 in order to further reduce certain non-participant sound levels, consistent with the proposal advocated by Staff witness Mr. David Hessler.[102] Pursuant to Permit Condition No. 26, Applicant agreed to a post construction sound protocol to be used in the event the Commission orders post construction sound monitoring.

47. Similarly, the record also demonstrates that Applicant has appropriately minimized the shadow and flicker for the Project to no more than 30 hours for all participants and non-participants inclusive of cumulative impacts from Deuel Harvest and Crowned Ridge Wind I, with the understanding that wind turbine CRII-Alt-3 will need to be curtailed to ensure the shadow and flicker is no more than 30 hours at receptor CR1-C10-P.[103] Applicant also used conservative

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[97] *See, e.g., In the Matter of the Application of Dakota Access, LLC for an Energy Facility Permit to Construct the Dakota Access Pipeline*, Docket HP14-002, Final Decision and Order; Notice of Entry (Dec. 14, 2015); *In the Matter of the Application by TransCanada Keystone Pipeline, LP for a Permit Under the South Dakota Energy Conversion and Transmission Facilities Act to Construct the Keystone XL Project*, Docket HP09-001, Amended Final Decision and Order; Notice of Entry (June 29, 2010) (discussing socioeconomic effects, including tax revenue, jobs, and impacts on agricultural, commercial, and industrial sectors and public facilities); *In the Matter of the Application of Dakota Range I, LLC and Dakota Range II, LLC for a Permit of a Wind Energy Facility in Grant County and Codington County, South Dakota, for the Dakota Range Wind Project*, Final Decision and Order Granting Permit to Construct Wind Energy Facility; Notice of Entry (July 23, 2018); *In the Matter of the Application of Montana-Dakota Utilities Co. and Otter Tail Power Company for a Permit to Construct the Big Stone South to Ellendale 345 kV Transmission Line*, Docket EL13-028, Final Decision and Order; Notice of Entry (Aug. 22, 2014) (discussing impacts to agriculture, property values, and local roads under this criterion). *See In the Matter of the Application by Prevailing Wind Park, LLC for a Permit of a Wind Energy Facility in Bon Homme County, Charles Mix County and Hutchinson County, South Dakota, for the Prevailing Wind Park Project*, Docket EL18-026, Final Decision and Order Granting Permit to Construct Facilities and Notice of Entry (Nov. 28, 2018); *In the Matter of the Application by Crocker Wind Farm, LLC for a Permit of a Wind Energy Facility and a 345 kV Transmission Line in Clark County, South Dakota, for Crocker Wind Farm*, Docket EL17-055, Final Decision and Order Granting Permit to Construct Facilities and Notice of Entry (June 12, 2018); *In the Matter of the Application of Deuel Harvest Wind Energy, LLC*, Docket No. EL18-053, Final Decision and Order (May 30, 2019); *In the Matter of the Application by Crowned Ridge Wind, LLC for a Permit of a Wind Energy Facility in Grant and Codington Counties,* Docket No. EL19-003, Final Decision and Order (July 26, 2019).

[98] Exs. A2; A14; A21 (Haley Direct, Supplemental and Rebuttal Testimony); Ex. A1-I (Sound Modeling Report); Ex. A14-1 through Ex. A14-3 (Supplemental Testimony Sound Studies); Ex. A21-1; Ex. A21-3; Ex. A28, and Ex. 29 (Updated Rebuttal Sound Results).

[99] Ex. A1-I at 1 (Sound Modelling Results); Evid. Hrg. Tr. at 217-218 (Haley) (February 4, 2020).

[100] *Id.* at 2.

[101] Ex. A1-I at 8-9 (Sound Modelling Results).

[102] Ex. S2 (Hessler Direct Testimony).

[103] Ex. A13 at 5 (Hart Supplemental Testimony); Exs. A2; A14; A21 (Haley Direct, Supplemental and Rebuttal Testimony); Ex. A1-J (Shadow Flicker Modeling Report); Ex. A14-2 and Ex. A14-4 (Supplemental Testimony Shadow Flicker Studies); Ex. A21-2; Ex. A21-3; Ex. A28 (Updated Rebuttal Shadow Flicker Results); Evid. Hrg. Tr. at 220 (Haley) (February 4, 2020).

assumptions, such as the greenhouse-mode, no credit for blockage due to tree and assumed the wind turbines were operating 100% of the time to model shadow and flicker, which, in turn, produces conservative results.[104]

48. There is no record evidence that the Project will substantially impair human health or welfare. To the contrary, Crowned Ridge Wind II witnesses Dr. Robert McCunney and Dr. Christopher Ollson submitted evidence that demonstrates that there is no human health or welfare concern associated with the Project as designed and proposed by Applicant.[105] Both Crowned Ridge Wind II witnesses analyzed the scientific peer-reviewed literature in the context of the proposed Project, and Dr. McCunney testified based on his experience and training as a medical doctor specializing in occupational health and the impact of sound on humans.[106]

49. There is no evidence in the record that the Project will substantially impair safety. Applicant will meet or exceed required setbacks established for safety,[107] and, also, implement safety practices during construction, operation, and maintenance, including grounding wind turbines in accordance with National Electrical Safety Code standards.[108] The Project will be monitored twenty-four hours a day, seven days a week through the Supervisory Control and Data Acquisition system.[109]

50. Applicant will implement a SWPPP and SPCCP, part of which will ensure that state and local disaster services are coordinated with in the event of the accidental release of contaminants.[110]

51. Applicant will illuminate the wind turbines as required by the FAA,[111] with the understanding that Applicant has also agreed under Permit Condition No. 34 to equip the Project with an ADLS.

52. Permit Condition No. 36 requires Applicant to use two methods to detect icing conditions on turbine blades in order to shut down turbines when they are accumulating ice.

53. Permit Condition No. 9 requires that Applicant develop and file a Temporary Traffic Control Plan.

54. Permit Condition No. 4 requires Applicant to mail to participanting and non-participating landowners detailed safety information, including safety precautions, 14 days prior to the commencement of construction.

55. Mr. MaRous testified that it is commonplace in areas where wind turbines are placed that the project owner will shut down select wind turbines so that aerial spray pilots may spray fields.[112] Permit Condition No. 48 requires the Project owner to cooperate with agricultural spray applicators in shutting down turbines as needed to facilitate safe and effective spray operation and application.

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[104] Ex. A2 at 7 (Haley Direct Testimony); Ex. A1-J at 1, 6; Evid. Hrg. Tr. at 218-220 (Haley) (February 4, 2020).
[105] Ex. A10, and Ex. A10-2 through A10-16 (Ollson Supplemental Testimony and Exhibits); Ex. A15, and Ex. A15-2 through A15-8 (McCunney Supplemental Testimony); Ex. A20 (Ollson Rebuttal Testimony); Evid. Hrg. Tr. at 322-323, 329-330 (McCunney) (February 5, 2020); Evid. Hrg. Tr. at 335-337, 368-369 (Ollson) (February 5, 2020).

[106] *Id.*
[107] Ex. A1 at 73-76 (Application) and Ex. A5 at 8-10 (Wilhelm Direct Testimony).
[108] Ex. A1 at 21, 108 (Application) and Ex. A4 at 3, 5, 7 (Thompson Direct Testimony).
[109] Ex. A1 at 24-25 (Application) and Ex. A4 at 5, 8 (Thompson Direct Testimony).
[110] Ex. A1 at 13, 14, 25, 37, 39, 43, 88, 95, 98 (Application).
[111] *Id.* at 14.
[112] Evid. Hrg. Tr. at 137, 145, 153 (MaRous) (February 4, 2020).

56. Therefore, the record shows that Crowned Ridge Wind II has met its burden to demonstrate that the Project will not substantially impair the health, safety or welfare of the inhabitants of the siting area; indeed, there is no evidence in the record that the Project would substantially impair human health.

D. <u>The facility will not unduly interfere with the orderly development of the region with due consideration having been given the views of governing bodies of affected local units of government</u>.

57. The Commission must give due consideration to the views of governing bodies of affected local units of government pursuant to SDCL 49-41B-22(4). An Applicant that holds a conditional use permit from an applicable local unit of government is in compliance with this subsection.

58. The record demonstrates that the Project will not unduly interfere with the orderly development of the region. Applicant holds CUPs from Grant County and Codington County, and an SEP from Deuel County.[113] Given that Applicant holds these permits from the applicable local units of government, Applicant has demonstrated, consistent with SDCL 49-41B-22(4), that the Project will not unduly interfere with the orderly development of the region.

59. Applicant has also committed to decommissioning the Project at the end of its 25-year useful life, provided the life of the Project is not extended by retrofitting the turbines and power systems.[114]

60. Applicant has also committed to fund a Decommissioning Funding Account consistent with Permit Condition No. 33.

VI. GENERAL.

61. Applicants have furnished all information required by the applicable statutes and Commission regulations.

62. Applicants have satisfied their burden of proving all of the requirements imposed by SDCL 49-41B-22 for issuance of the permit to construct by the preponderance of the evidence.

63. An application may be denied, returned, or amended, at the discretion of the Commission, for failure to file an application generally in the form and content required by SDCL Chapter 49-41B and ARSD Chapter 20:10:22.[115] The Commission finds that Applicant filed its Application generally in the form and content required by SDCL Chapter 49-41B and ARSD Chapter 20:10:22. The Commission notes that the supplementation of an application with additional information is common.[116]

64. An application may be denied, returned, or amended, at the discretion of the Commission, if there are any deliberate misstatements of material facts in the application or in accompanying statements or studies.[117] The Commission finds that the Application and its accompanying statements and studies did not contain any deliberate misstatements of material facts.

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[113] Ex. A5 at 7-10 (Wilhelm Direct Testimony); Ex. A1-K (County Use Permits).
[114] Ex. A1 at 107 (Application); Ex. A1-L (Decommission Plan).
[115] SDCL 49-41B-13(2).
[116] Ex. S1 at 8-9 (Kearney Direct Testimony).
[117] SDCL 49-41B-13(1).

65. The Commission finds that the Permit Conditions attached hereto and incorporated herein by reference are supported by the record, are reasonable, and will help ensure that the Project will meet the standards established for approval of a construction permit for the Project set forth in SDCL 49-41B-22 and should be adopted.

66. The Commission finds that the Project, if constructed in accordance with the Permit Conditions of this decision, will comply with all applicable laws and rules, including all requirements of SDCL Chapter 49-41B and ARSD Chapter 20:10:22.

67. The Commission finds that the Project, if constructed in accordance with the Permit Conditions of this decision, will not pose an unacceptable threat of serious injury to the environment nor to the social and economic conditions of inhabitants or expected inhabitants in the siting area.

68. The Commission finds that the Project, if constructed in accordance with the Permit Conditions of this decision, will not substantially impair the health, safety or welfare of the inhabitants in the siting area.

69. The Commission finds that the Project, if constructed in accordance with the Permit Conditions of this decision, will not unduly interfere with the orderly development of the region with due consideration having been given to the views of the governing bodies of the affected local units of government.

70. The Commission finds that neither the Intervenors nor the pro se Intervenors have presented evidence sufficient to deny the permit under the applicable statutes and Commission regulations.

71. The Commission finds that a permit to construct the Project should be granted subject to the attached Permit Conditions.

72. To the extent that any Conclusion of Law set forth below is more appropriately a finding of fact, that Conclusion of Law is incorporated herein by reference as a Finding of Fact as if set forth in full herein.

73. To the extent that any of the Findings of Fact in this decision are determined to be Conclusions of Law or mixed findings of fact and conclusions of law, the same are incorporated herein by this reference as a Conclusion of Law as if set forth in full herein.

Based on the foregoing Findings of Fact and the entire record in this proceeding, the Commission hereby makes the following:

CONCLUSIONS OF LAW

1. The Commission has jurisdiction to consider the Application under SDCL Chapter 49-41B.

2. The Crowned Ridge Wind II Project proposed by Applicant is a wind energy facility as defined under SDCL 49-41B-2(13).

3. The Application submitted by Applicant, as amended and supplemented throughout the proceedings in this matter, meets the criteria required by SDCL 49-41B-25, and construction of the Project meets the requirements of SDCL 49-41B and ARSD Chapter 20:10:22.

4. The Commission concludes that it possesses the authority under SDCL 49-41B-25 to impose conditions on the construction, operation, and maintenance of the Project, that the Conditions set forth in the attached Permit Conditions are supported by the record, are reasonable, and will help ensure that the Project will meet the standards established for approval of a construction permit for the Project as set forth in SDCL 49-41B-22 and that the Permit Conditions are hereby adopted.

5. The Commission concludes that it needs no other information to assess the impact of the proposed facility or to determine if Crowned Ridge Wind II has met its burden of proof.

6. The Commission satisfied the hearing and notice requirement in SDCL Chapter 49-41B.

7. Applicant satisfied the applicable notice requirements in SDCL Chapter 49-41B.

8. All other applicable procedural requirements in SDCL Chapter 49-41B have been satisfied.

9. Applicant has demonstrated that the proposed facility will comply with all applicable laws and rules.

10. When considered with all Permit Conditions, Applicant has demonstrated that the facility will not pose a threat of serious injury to the environment nor to the social and economic condition of inhabitants or expected inhabitants in the siting area.

11. When considered with all Permit Conditions, Applicant has demonstrated that the facility will not substantially impair the health, safety or welfare of the inhabitants.

12. When considered with all Permit Conditions, Applicant has demonstrated that the facility will not unduly interfere with the orderly development of the region with due consideration having been given to the views of the governing bodies of the affected local units of government.

13. Applicant must comply with the applicable requirements in the Deuel County, Grant County, and Codington County ordinances.

14. The standard of proof is by the preponderance of evidence. Applicant has met its burden of proof imposed by SDCL 49-41B-22 for the issuance of the permit to construct by the preponderance of the evidence and is entitled to a permit to construct as provided in SDCL 49-41B-25.

15. Based on the preponderance of the evidence presented to the Commission, the Commission concludes that all of the requirements of SDCL 49-41B-22 have been satisfied.

16. The Commission thus concludes that the Application should be granted, and a facility permit should be issued for the Project for the reasons stated in these Findings of Fact and Conclusions of Law. The Commission grants the permit to construct requested in the Application, as amended, subject to the Permit Conditions.

ORDER

From the foregoing Findings of Fact and Conclusions of Law, it is therefore:

ORDERED, that a permit to construct the Crowned Ridge Wind II Project is hereby granted to Crowned Ridge Wind II, LLC for the construction and operation of the Project. It is further

ORDERED, that Applicant shall comply with all of the attached Permit Conditions, which are incorporated by reference into this Order the same as if they had been set forth in their entirety herein, unless exempted by the Commission pursuant to Condition No. 40.

PERMIT CONDITIONS

1. Applicant will obtain all governmental permits which reasonably may be required by any township, county, state agency, or federal agency, or any other governmental unit for construction and operation activity of the Project prior to engaging in the particular activity covered by that permit. Applicant shall file an itemized affidavit with the Commission attesting that all permits were properly obtained prior to commercial operation.

2. Applicant shall construct, operate, and maintain the Project in a manner consistent with (1) descriptions in the Application, (2) Application supplements and corrections, (3) commitments made by Applicant in the Application and responses to data requests, (4) the Final Decision and Order Granting Permit to Construct Facility (Order or Permit) and Permit Conditions, (5) all applicable permits issued by a federal, state, or local agency with jurisdiction over the Project, and (6) evidence presented by Applicant at the evidentiary hearing.

3. Applicant agrees that the Commission's complaint process as set forth in ARSD Chapter 20:10:01 shall be available to landowners and other persons sustaining or threatened with damage as the result of Applicant's failure to abide by the conditions of the Permit or otherwise having standing to seek enforcement of the conditions of the Permit. Participating landowners may use the complaint process free from retribution or consequence regardless of any private easement term to the contrary.

4. At least 14 days prior to commencement of construction, Applicant shall provide each participating and non-participating landowner in the Project Area, using the addresses designated to receive the property tax bill sent by the county treasurer, with the following information:

   a) A copy of the Order and Permit Conditions;

   b) Detailed safety information describing:

      i. Reasonable safety precautions for existing activities on or near the Project;

      ii. Known activities or uses that are presently prohibited near the Project; and,

      iii. Other known potential dangers or limitations near the Project;

c) Construction/maintenance damage compensation plans and procedures (only to participating landowners);

d) The Commission's address, website, and phone number; and

e) Contact person for Applicant, including name, e-mail address, and phone number.

5. In order to ensure compliance with the terms and conditions of this Permit pursuant to SDCL 49-41B-33, it is necessary for the enforcement of this Order that all employees, contractors, and agents of Applicant involved in this Project shall be made aware of the terms and conditions of this Permit prior to the start of construction.

6. Except as otherwise provided in the Permit Conditions, Applicant shall comply with all mitigation measures set forth in the Application, Applicant's commitments in its responses to data requests, and Applicant exhibits and testimony at the evidentiary hearing. Material modifications to the mitigation measures shall be subject to prior approval of the Commission.

7. Applicant will negotiate road use agreements with Deuel, Codington, and Grant Counties and all affected townships, if required. Applicant will comply with such road use agreements. When using haul roads specified in applicable road use agreements, Applicant shall take appropriate action to mitigate wind-blown particles created throughout the construction process, including implementation of dust control measures such as road watering, covering of open haul trucks when transporting material subject to being windblown, and the removal of any soils or mud deposits by construction equipment when necessary.

8. In accordance with applicable road use agreements or applicable law, Applicant shall comply with the following conditions regarding road protection:

a) Applicant shall acquire all necessary permits authorizing the crossing of federal, state, county, and township roads.

b) Applicant shall coordinate road closures with federal, state, and local governments, and emergency responders.

c) Applicant shall implement a regular program of road maintenance and repair through the active construction period to keep paved and gravel roads in an acceptable condition for residents and the public.

d) After construction, Applicant shall repair and restore deteriorated roads resulting from construction traffic or compensate governmental entities for their repair and restoration of deteriorated roads, such that the roads are returned to their preconstruction condition.

e) Within 180 days of completing construction and reclamation of the Project, Applicant shall submit documentation to the Commission identifying that the roads were repaired in accordance with Condition 8 and to the satisfaction of affected townships and counties. If a township or county will not provide such documentation, then Applicant shall provide a report to the Commission on the outstanding road repair issues and how those issues have been or will be

resolved.

f) Privately owned areas used as temporary roads or crane paths during construction will be restored to their preconstruction condition, except as otherwise requested or agreed to by the landowner.

g) Should Applicant need to widen any existing roadways during construction of the Project, Applicant shall return the roadways back to the original width after completion of the Project, unless otherwise agreed upon with the federal, state, county, or township entities, or the landowner.

9. Applicant shall develop a Temporary Traffic Control Plan and provide signage, vehicle lighting, and/or flagging that identifies road closures and disturbances resulting from the Project in accordance with the most recent edition of the Manual on Uniform Traffic Control Devices as published by the Federal Highway Administration. The Temporary Traffic Control Plan shall be filed with the Commission prior to the start of construction.

10. Applicant shall promptly report to the Commission the presence of any critical habitat of threatened or endangered species in the Project Area that Applicant becomes aware of and that was not previously reported to the Commission.

11. Applicant agrees to avoid direct impacts to cultural resources that are unevaluated, eligible for, or listed in the National Register of Historic Places (NRHP). When a NRHP unevaluated, eligible, or listed resource cannot be avoided, Applicant shall notify the South Dakota State Historic Preservation Office (SHPO) and the Commission prior to excavation of the area of the reasons that complete avoidance cannot be achieved in order to coordinate minimization and/or treatment measures.

12. Prior to the commencement of construction, Applicant agrees to develop an unanticipated discovery plan for cultural resources and comply with SDCL 34-27-25, 34-27-26, and 34-27-28 for the discovery of human remains.

13. Applicant shall file any amendments to the Level III Archaeological Survey with the Commission and provide a copy of the survey to the SHPO prior to commercial operation. The survey report may contain confidential information and all confidential portions of the survey report shall be filed as confidential and not for public disclosure. If any potential adverse impacts to NRHP unevaluated, listed, or eligible cultural resources are identified in additional surveys, Applicant shall file with the Commission a report describing the SHPO-approved planned measures to ameliorate those impacts.

14. Applicant shall provide the Stormwater Pollution Prevention Plan (SWPPP) to the Commission when Applicant has a final design for the Project. The SWPPP will outline the water and soil conservation practices that will be used during construction to prevent or minimize erosion and sedimentation and be in a form consistent with the South Dakota Department of Environment and Natural Resources guidelines for such plans. The SWPPP will be completed before submittal of an application for a National Pollutant Discharge Elimination System (NPDES) general permit for construction activities. All contractors to be engaged in ground disturbing activities shall be given a copy of the SWPPP and the requirements shall be reviewed with them by Applicant prior to the start of construction.

15. Applicant shall repair and restore areas disturbed by the construction or maintenance of the Project. Except as otherwise agreed to by the landowner, restoration shall include the replacement of the original pre-construction topsoil or equivalent quality topsoil to its original elevation, contour, and compaction and re-establishment of original vegetation as close thereto as reasonably practical. In order to facilitate compliance with this Permit Condition, Applicant shall:

    a) Strip the topsoil to the actual depth of the topsoil, or as otherwise agreed to by the landowner in writing (e-mail is sufficient), in all areas disturbed by the Project; however, with respect to access roads, Applicant may remove less than the actual depth of the topsoil to ensure roads remain low-profile and the contours align with the surrounding area;

    b) Store the topsoil separate from the subsoil in order to prevent mixing of the soil types;

    c) Ensure all excess soils generated during the excavation of the wind turbine foundations shall remain on the same landowner's land, unless the landowner requests, and the landowner agrees otherwise; and

    d) When revegetating non-cultivated grasslands, Applicant shall use a seed mix that is recommended by the Natural Resource Conservation Service (NRCS), or other land management agency, unless otherwise agreed upon with the landowner in writing.

16. Applicant shall work closely with landowners or land management agencies, such as the NRCS, to determine a plan to control noxious weeds and Applicant shall implement the plan.

17. Applicant shall stage construction materials in a manner that minimizes the adverse impact to landowners and land users as agreed upon between Applicant and landowner or Applicant and the appropriate federal, state, and/or local government agency. All excess (non-permanent) construction materials and debris shall be removed upon completion of the Project, unless the landowner agrees otherwise.

18. In order to mitigate interference with agricultural operations during and after construction, Applicant shall locate all structures, to the extent feasible and prudent, to minimize adverse impacts and interferences with agricultural operations, shelterbelts, and other land uses or activities. Applicant shall take appropriate precautions to protect livestock and crops during construction. Applicant shall repair all fences and gates removed or damaged during construction or maintenance unless otherwise agreed upon with the landowner or designee. Applicant shall be responsible for the repair of private roads damaged when moving equipment or when obtaining access to the right-of-way.

19. Applicant shall bury the underground collector system at a minimum depth of 48 inches, or deeper if necessary, to ensure the current land use is not impacted.

20. Applicant shall repair or replace all property removed or damaged during all phases of construction, including but not limited to, all fences, gates, and utility, water supply, irrigation, or drainage systems. Applicant shall compensate the owners for damages or losses that cannot be fully remedied by repair or replacement, such as lost productivity

and crop and livestock losses. All repair, replacement and/or compensation described above shall be in accordance with the terms and conditions of written agreements between Applicant and affected landowners where such agreements exist.

21. Applicant shall, in the manner described in its written agreement with a landowner, indemnify and hold the landowner harmless for loss, damage, claim, or actions resulting from Applicant's use of the easement, including any damage resulting from any release, except to the extent such loss, damage claim, or action results from the negligence or willful misconduct of the landowner or his employees, agents, contractors, invitees, or other representatives.

22. Applicant may make wind turbine location adjustments of 250 feet or less from the wind turbine locations identified at the time the Permit is issued without prior Commission approval, so long as the specified noise and shadow flicker thresholds are not exceeded, cultural resource impacts and documented habitats for listed species are avoided, and wetland impacts are avoided or are in compliance with applicable U.S. Army Corps of Engineers (USACE) regulations. Prior to implementing the wind turbine location adjustment, Applicant will file in the docket an affidavit demonstrating compliance with the limitations set forth above. Any wind turbine location adjustment that does not comply with the aforesaid limitations, or wind turbine model change, shall be considered a "material change," and Applicant shall file a request for approval of the "material change" prior to making the adjustment pursuant to the following approval process:

Applicant will file with the Commission and serve on the official Service List a request for approval of the material change that includes:

- An affidavit describing the proposed wind turbine location adjustment, the reason for the location adjustment, the reason the location adjustment does not comply with one or more wind turbine flexibility limitations set forth above, and information regarding compliance with all other applicable requirements.
- A map showing both the approved location and the proposed location adjustment (in different colors).
- Once received, Staff shall have 10 business days within which to request further Commission review of the request.
- If no further review is requested, Applicant may proceed with the location adjustment.
- If further review is requested, the Commission will issue a decision on Applicant's request at its next available regularly scheduled Commission meeting, subject to notice requirements, after the request for further review is made by Staff.

23. Applicant may adjust locations and details of access roads, the collector and communications systems, meteorological tower(s), Aircraft Detection Lighting System facilities, the operations and maintenance facility, the Project Substation, and temporary facilities, so long as they are located on land leased for the Project, cultural resources are avoided or mitigated in consultation with the SHPO, documented habitats for listed species are avoided, wetland impacts are avoided or are in compliance with applicable USACE regulations, and all other applicable regulations and requirements are met.

24. If the Project causes interference with radio, television, or any other licensed communication transmitting or receiving equipment, Applicant shall take all appropriate action to minimize any such interference and shall make a good faith effort to restore or

provide reception levels equivalent to reception levels in the immediate areas just prior to construction of the Project. This mitigation requirement shall not apply to any dwellings or other structures built after completion of the Project.

25. Applicant will provide Global Positioning System coordinates of structure locations to affected landowners at any time during the life of the Project. Coordinates will be provided in writing to landowners within 30 days of a request.

26. The Crowned Ridge Wind II Project (CRW II), exclusive of all unrelated background noise except for that associated with the pre-existing Crowned Ridge Wind I Project (CRW I), shall not generate a sound pressure level (10-minute equivalent continuous sound level, Leq) of more than 45 dBA as measured within 25 feet of any non-participating residence unless the owner of the residence has signed a waiver, or more than 50 dBA (10-minute equivalent continuous sound level, Leq) within 25 feet of any participating residence unless the owner of the residence has signed a waiver. The Project owner shall, upon Commission formal request, conduct field surveys and provide monitoring data verifying compliance with specified noise level limits. If the measured wind turbine noise level exceeds a limit set forth above, then the Project owner shall act in accordance with prudent operating practice to rectify the situation.

If a field survey and monitoring data is requested by the Commission, the Project owner shall submit the test protocol to the Commission prior to conducting the survey and sound monitoring for approval. The test protocol shall include and be implemented as follows:

a) The post-construction monitoring survey shall be conducted following applicable American National Standard Institute (ANSI) methods.

b) Sound levels shall be measured continuously for 14 days in an effort to capture a sufficient quantity of valid readings meeting the wind conditions delineated below in subpart (e). A sufficient quantity shall be defined as 0.5% of the total number of samples, or a minimum of 10 for a 14-day measurement period. As a precaution against the possibility that a sufficient number of valid readings are not automatically recorded during the chosen 14-day sampling period, 10 on/off tests shall be carried out during the survey period when both the CRW II and CRW I Projects are operating at full power production irrespective of the ground level wind speed. For the on/off tests, all units owned by CRW II and CRW I, within at least 1 mile of the measurement position, shall be shut down for a 10-minute period synchronized with the monitor's clocks (starting, for example, at the top of the hour or 10 minutes after, 20 minutes after, etc.) with the understanding that Applicant may request Staff to facilitate the curtailment of any CRW I wind turbines, and Staff shall facilitate the coordination between CRW II and CRW I on any curtailment. The background level measured during the shutdown interval can then be subtracted from the average of the levels measured immediately before and after it to determine the Project-only sound level. The results from these tests may be used to make up for any shortfall in collecting 10 samples measured when the ground level wind speed is less than or equal to 5 m/s.

c) Measurements shall be conducted at a select number of non-participating and participating residences with the highest expected noise levels and/or at specific residences identified in the Commission's formal request. At least 6

measurement locations total shall be selected. The Public Liaison Officer will assist in contacting non-participating landowners for permission to test noise levels on their property.

d) Measurements shall be conducted using sound level meters meeting ANSI Type 1 specifications. An anemometer shall be placed within 20 feet of each microphone, and at a height of approximately 2 meters above the ground.

e) The measurement data shall be analyzed as follows:

i. At a minimum, the closest 5 wind turbines associated with the CRW II and CRW I Projects will be operating for evaluation periods and when at least the closest wind turbine is operating at a condition at full (within one decibel of maximum sound power levels) acoustic emissions.

ii. Discard those samples measured when the 10-minute average ground wind speed is greater than 5 m/s.

iii. Discard those samples measured during periods with precipitation.

iv. If measured (total) sound levels exceed the sound level limits, determine Project-only sound levels by removing transient background noise (i.e. occasional traffic, activities of residents, farming activities, and wind gusts) based upon audio recordings, excessive wind gusts, personal observations, and/or comparison of sound level metrics.

v. If measured (total) sound levels exceed the sound level limits, determine Project-only sound levels by removing continuous background noise. This approach requires wind turbine shut-downs, where the background noise is measured directly. The background sound level shall be measured with all wind turbines within at least 1 mile of the measurement location temporarily shut down. This would include wind turbines that are part of the CRW I Project for measurement positions in the northern part of the CRW II Project, with the understanding that Applicant may request Staff to facilitate the curtailment of any CRW I wind turbines, and Staff shall facilitate the coordination between CRW II and CRW I on any curtailment. Background noise levels will be subtracted from total noise levels measured during these wind conditions to calculate wind turbine-only noise levels.

vi. As necessary, review of the frequency spectra of potential wind turbine-only samples to identify and remove outliers (spectral shape clearly differing from those samples measured under very low (less than 2 m/s) ground wind conditions, which are the samples most representative of wind turbine-only noise).

f) Compare the resulting wind turbine-only noise levels to the 45 and 50 dBA limits. Compliance shall be demonstrated if all samples are less than the limits.

27. Applicant agrees to use wind turbine locations CRII-94, CRII-97, CRII-134, and CRII-Alt 6 as primary wind turbines and relegate wind turbine locations CRII-13, CRII-72, CRII-77, and CRII-Alt 5 to alternative status. If during construction at an alternative wind turbine, Applicant determines that the location is not suitable for a wind turbine due to

geotechnical, cultural, environmental issues or other constructability issues, Applicant shall file an affidavit with the Commission setting forth why the alternative wind turbine cannot be used and identifying which primary wind turbine will be used. If there is a dispute over the use of a primary wind turbine, Applicant and Staff shall meet and attempt to resolve the dispute within 10 business days of the filing of the affidavit. If the dispute cannot be resolved within 10 business days, Applicant shall file a request for a material change with the Commission.

28. Applicant shall seek input from local emergency response personnel to properly and effectively coordinate an emergency response plan consistent with local resources and response abilities. Upon completion of construction, a Project operation emergency response plan shall be provided to Staff to make available to the general public on the Commission's website.

29. Applicant agrees to undertake one year of independently-conducted post-construction avian and bat mortality monitoring for the Project, and to provide a copy of the report and all further reports to the United States Fish and Wildlife Services, South Dakota Game, Fish & Parks (SD GF&P), and the Commission. Applicant also agrees to fund a federal grant match for the SD GF&P State Wildlife Action Plan designed to facilitate an additional component for the grouse study on avian predator interactions with wind projects. This particular study component must be consistent with SD GF&P State Wildlife Action Plan priorities and must be designed to inform the scientific literature regarding potential mechanisms that may explain grouse and wind project interactions.

30. Applicant shall file a Bird and Bat Conservation Strategy (BBCS) prior to beginning construction of the Project. The BBCS shall be implemented during construction and operation of the Project.

31. At least 60 days prior to construction on property enrolled as a SD GF&P walk-in area, Applicant shall contact the SD GF&P to coordinate public access to the walk-in area that will be temporarily disrupted due to construction activities.

32. If the Project is decommissioned, Applicant shall comply with Section 21 of the Application and the decommissioning plan set forth in Appendix N of the Application. The Commission shall be notified prior to the commencement of any decommissioning activities at the Project.

33. If Applicant is purchased by Northern States Power Company, doing business as Xcel Energy, as stated in Sections 1.0 and 3.0 of the Application, Xcel Energy will assume financial responsibility for decommissioning and provide funding for the decommissioning and removal of the Project. As a regulated electric utility, the projected financial cost of decommissioning will be reviewed when Xcel Energy requests recovery of the Project investment and associated decommissioning cost from customers in a rate proceeding. The Commission may review and adjust the Project decommissioning cost recovered from customers in subsequent Xcel Energy rate proceedings using the most current information available regarding decommissioning.

In the event Xcel Energy does not purchase CRW II, at least 30 days prior to commencement of commercial operation, Project owner shall file an escrow agreement with the Commission for Commission approval that provides a decommissioning escrow account (Decommissioning Funding Account). The escrow agreement shall incorporate the following requirements:

a) The Decommissioning Funding Account shall be funded by Project owner annually at a rate of $5,000 per wind turbine per year for the first 30 years, commencing no later than the commercial operation date.

b) Beginning in year 10 following commercial operation of the Project and each fifth year thereafter, the Project owner shall submit to the Commission an estimated decommissioning date, if established, and estimated decommissioning costs and salvage values. Based on the verification of the information in the filing, Project owner may request, and the Commission may determine that funds in the Decommissioning Funding Account are sufficient to cover the costs of decommissioning and that reduced, or no additional deposits are required. The Commission also may determine that additional funding is required and may require additional funding equal to the estimated amount needed for decommissioning.

c) All revenues earned by the Decommissioning Funding Account shall remain in the Decommissioning Account until such funds are used for decommissioning of the facility or are returned pursuant to Permit Condition 33(i) or Condition 33(j).

d) A statement of the Decommissioning Funding Account shall be provided annually to the Commission and become a public record in this docket.

e) The Decommissioning Funding Account obligations will be those of CRW II and the escrow agreement shall include terms providing that the escrow agreement binds CRW II's successors, transferees, and assigns. A sale of Project assets shall include the associated Permit that requires Commission approval per SDCL §49-41B-29.

f) The Decommissioning Funding Account agent shall be a South Dakota chartered state bank or a nationally chartered bank with an office located in South Dakota.

g) The escrow agreement shall be subject to the laws of South Dakota and any disputes regarding the escrow agreement shall be subject to venue in South Dakota.

h) To minimize the risk that the Decommissioning Funding Account would be subject to foreclosure, lien, judgment, or bankruptcy, the escrow agreement will be structured to reflect the following factors:

i. That Crowned Ridge II agreed to the creation of the Decommissioning Funding Account;

ii. Crowned Ridge II exercises no (or the least amount possible of) control over the Decommissioning Funding Account;

iii. The initial source of the Decommissioning Funding Account;

iv. The nature of the funds deposited into the Decommissioning Funding Account;

v. The recipient of its remainder following the completion of

decommissioning activities (if any);

vi. The target of all its benefit; and

vii. The purpose and its creation.

i) Decommissioning Funding Account funds are to be paid to the Project owner at the time of decommissioning and shall be paid out as decommissioning costs are incurred and paid.

j) If the Project owner fails to execute the decommissioning requirement found in this section of the Permit Conditions, the Decommissioning Funding Account shall be payable to the landowner who owns the land on which associated Project facilities are located as the landowner incurs and pays decommissioning costs.

34. Applicant shall apply to the Federal Aviation Administration (FAA) for approval to utilize an Aircraft Detection Lighting System. Such application shall be made to allow enough time for a FAA determination and system construction prior to the commercial operation date of the Project. If approved, the system will be operated in accordance with the applicable FAA requirements starting with the commercial operation date and for the life of the Project, subject to normal maintenance and forced outage.

35. Shadow flicker at residences shall not exceed 30 hours per year unless the owner of the residence has signed a waiver. Prior to construction, Applicant shall obtain and file with the Commission a waiver for any occupied structure which will experience more than 30 hours of shadow flicker per year. If no waiver is obtained, Applicant shall file a mitigation plan with the Commission prior to construction and obtain Commission approval of the mitigation plan.

36. Applicant will use 2 methods to detect icing conditions on wind turbine blades: (1) sensors that will detect when blades become imbalanced or create vibration due to ice accumulation; and (2) meteorological data from on-site permanent meteorological tower(s), on-site anemometers, and other relevant meteorological sources that will be used to determine if ice accumulation is occurring. These control systems will either automatically shut down the wind turbine(s) in icing conditions (per the sensors) or Applicant will manually shut down wind turbine(s) if icing conditions are identified (using meteorological data). Wind turbines will not return to normal operation until the control systems no longer detect an imbalance or when weather conditions either remove icing on the blades or indicate icing is no longer a concern. Applicant will pay for any documented property damage caused by ice thrown from a wind turbine.

37. Wind turbines shall be set back at least 1.1 times the tip height, with a minimum set back distance of 500 feet, from any surrounding property line. However, if the Project owner has a written agreement with an adjacent landowner allowing the placement of the wind turbine closer to the property line, the wind turbine may be placed closer to the property line shared with that adjacent landowner.

38. Applicant shall implement the avoidance, minimization, and mitigation measures identified as follows for Traditional Cultural Properties (TCPs):

a) Implement standard avoidance or resource protection practices (e.g., barrier fencing, contractor training) for TCPs, where feasible, in collaboration with the Sisseton-Wahpeton Oyate, Yankton Sioux, Rosebud Sioux, and Spirit Lake Tribal Historic Preservation Officers (THPOs) and Applicant;

b) Make reasonable efforts to identify participating landowners who may be willing to work with the tribes on site preservation, accessibility, and protection of TCPs on their property;

c) Conduct site revisits prior to construction;

d) Help facilitate post-construction site revisits for tribes with the landowners; and

e) Identify and implement education/interpretation opportunities regarding tribal resource preservation and/or Native American perspectives which may include sensitivity training when needed.

39. For purposes of this Project and the commitments herein, “residences,” “business(es),” “structures,” “schools,” “churches,” “cemeteries,” and “public buildings” shall include only those that are in existence and in use as of the date of the Order.

40. The Permit Conditions shall be uniform conditions of construction and operation, subject only to an affirmative written request for an exemption addressed to the Commission. A request for an exemption shall clearly state which particular Permit Condition should not be applied and the reason for the requested exemption. The Commission shall evaluate such requests on a case-by-case basis, which evaluation shall be completed within 60 days unless exigent circumstances require action sooner.

41. Applicant shall provide a copy of the Commission’s Final Decision and Order Granting Permit to Construct Facility; Permit Conditions; and Notice of Entry in this docket to the affected county, townships, and municipalities in the Project Area.

42. At least 30 days prior to the commencement of construction work in the field for the Project, Applicant will provide to Staff the following information:

a) the most current preconstruction design, layout, and plans, including the wind turbine model;

b) a sound level analysis showing compliance with the applicable sound level requirements;

c) a shadow flicker analysis showing the anticipated shadow flicker levels will not exceed applicable requirements per year at any residence, absent a waiver agreement executed by the residence owner(s);

d) should Applicant decide at a later point to use a different wind turbine model, it shall provide the information required in parts a-c above. Applicant shall also demonstrate that in selecting locations for the other wind turbines, it considered how to reduce impacts on non-participating landowners; and

e) additional Project preconstruction information as Staff requests.

43. At least 30 days prior to commencement of construction, Applicant shall submit the identity and qualifications of a public liaison officer to the Commission for approval to facilitate the exchange of information among Applicant, including its contractors, landowners, local communities, and residents, and to facilitate prompt resolution of complaints and problems that may develop for landowners, local communities, and residents as a result of the Project. Applicant shall file with the Commission its proposed public liaison officer's credentials for approval by the Commission prior to the commencement of construction. After the public liaison officer has been approved by the Commission, the public liaison officer may not be removed by Applicant without the approval of the Commission. The public liaison officer shall be afforded regular access to Applicant's on-site Project manager, its executive Project manager, and to the contractors' on-site managers and shall be available at all times to Staff via mobile phone to respond to complaints and concerns communicated to the Staff by concerned landowners and others. Within 10 working days of when Applicant's public liaison officer has been appointed and approved, Applicant shall provide contact information for him/her to all landowners in the Project Area and to law enforcement agencies and local governments in the vicinity of the Project. The public liaison officer's contact information shall be provided to landowners in each subsequent written communication with them. If the Commission determines that the public liaison officer has not been adequately performing the duties set forth for the position in this Order, the Commission may, upon notice to Applicant and the public liaison officer, take action to remove the public liaison officer. The public liaison's services shall terminate after the Project completes final reclamation of disturbed land, unless the appointment is terminated earlier than set forth above, or extended, by order of the Commission.

44. Prior to the construction of the Project, Applicant will notify public safety agencies by providing a schedule and the location of work to be performed within their jurisdiction. The agencies contacted will include the South Dakota Department of Public Safety, the sheriffs of Codington County, Deuel County, and Grant County, and the Codington County, Deuel County, and Grant County Offices of Emergency Management.

45. Within 90 days after the Project's commercial operation date, Applicant shall submit a report to the Commission that provides the following information:

a) as-built location of structures and facilities, including drawings clearly showing compliance with the setbacks required by state and local governments set forth in Table 13.1 of the Application;

b) ArcGIS shapefiles of the final wind turbine and facility layout;

c) the status of remedial activities for road damage, landowner property damage, crop damage, environmental damage, or any other damage resulting from Project construction activities; and,

d) a summary of any known landowner complaints and Applicant's plan for resolving those complaints.

46. Applicant shall establish a procedure for preventing whooping crane collisions with wind turbines during operations by establishing and implementing formal plans for monitoring the Project site and surrounding area for whooping cranes during spring and fall migration periods throughout the operational life of the Project and shutting down wind turbines and/or construction activities within 2 miles of whooping crane sightings. The SD GF&P

will be consulted on the procedure to minimize impacts to whooping cranes.

47. Commercial operation may not begin prior to completion of the installation of low noise trailing edge blade attachments on Crowned Ridge Wind I turbines.

48. Project owner must cooperate with agricultural spray applicators in shutting down turbines as needed to facilitate safe and effective spray operation and application.

49. Applicant shall allow Crowned Ridge Wind, LLC, and SD GF&P access to the Project Area to conduct a pre- and post-construction study to evaluate the potential effect of the Crowned Ridge Wind II Project on the local prairie grouse populations. Crowned Ridge Wind, LLC plans to conduct studies in the Crowned Ridge Wind II Project Area in accordance with the plan submitted on December 18, 2019, in Docket EL19-003.

NOTICE OF ENTRY

PLEASE TAKE NOTICE that this Final Decision and Order Granting Permit to Construct Facility; Permit Conditions was duly issued and entered on the 6th day of April 2020.

Dated at Pierre, South Dakota, this 6th day of April 2020.

CERTIFICATE OF SERVICE

The undersigned hereby certifies that this document has been served today upon all parties of record in this docket, as listed on the docket service list, electronically or by mail.

By: Karen E. Cremer

Date. April 6, 2020

(OFFICIAL SEAL)

BY ORDER OF THE COMMISSION:

GARY HANSON, Chairman

CHRIS NELSON, Commissioner

KRISTIE FIEGEN, Commissioner

THE PUBLIC UTILITIES COMMISSION

OF THE STATE OF SOUTH DAKOTA

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The following transcript of proceedings was held in the above-entitled matter at the Matthew Training Center, Joe Foss Building, 523 East Capitol Avenue, Pierre, South Dakota, on the 4th day of February, 2020, commencing at 9:00 a.m.

I N D E X

APPLICANT'S WITNESSES	PAGE
TYLER WILHELM	
Direct Examination by Mr. Murphy	29
Cross-Examination by Mr. Swanson	32
Cross-Examination by Ms. Christenson	46
Cross-Examination by Mr. Robish	73
Cross-Examination by Ms. Reiss	74
Commissioner Questions	81
Redirect Examination by Mr. Murphy	98
Recross-Examination by Ms. Christenson	104
Recross-Examination by Ms. Reiss	105
DARYL HART	
Direct Examination by Mr. Murphy	111
Cross-Examination by Mr. Swanson	113
Cross-Examination by Ms. Christenson	114
Cross-Examination by Ms. Reiss	126
Commissioner Questions	128
MICHAEL MAROUS	
Direct Examination by Mr. Schumacher	131
Cross-Examination by Mr. Swanson	136
Cross-Examination by Ms. Christenson	140
Cross-Examination by Mr. Robish	146
Cross-Examination by Ms. Edwards	150
Commissioner Questions	152
MARK THOMPSON	
Direct Examination by Mr. Murphy	170
Cross-Examination by Ms. Christenson	173
Cross-Examination by Mr. Robish	194
Cross-Examination by Ms. Reiss	196
Commissioner Questions	201
Redirect Examination by Mr. Murphy	213

I N D E X (Continued)

APPLICANT'S WITNESSES	PAGE
JAY HALEY	
Direct Examination by Mr. Murphy	215
Cross-Examination by Mr. Swanson	220
Cross-Examination by Ms. Christenson	227
Cross-Examination by Ms. Edwards	243
Further Direct Examination by Mr. Murphy	262
Commissioner Questions	263
Redirect Examination by Mr. Murphy	275
Recross-Examination by Mr. Swanson	277
Recross-Examination by Ms. Christenson	283
Recross-Examination by Mr. Robish	292
Recross-Examination by Ms. Edwards	294
RICH LAMPETER	
Direct Examination by Mr. Schumacher	301
Cross-Examination by Mr. Swanson	302
Cross-Examination by Ms. Christenson	313
Cross-Examination by Ms. Edwards	315
Commissioner Questions	316
ROBERT MCCUNNEY	
Direct Examination by Mr. Murphy	321
Cross-Examination by Ms. Christenson	324
Commissioner Questions	326
CHRISTOPHER OLLSON	
Direct Examination by Mr. Murphy	333
Cross-Examination by Mr. Swanson	337
Cross-Examination by Ms. Christenson	355
Cross-Examination by Mr. Robish	367
Cross-Examination by Ms. Edwards	369
Commissioner Questions	371

I N D E X (Continued)

APPLICANT'S WITNESSES	PAGE
SARAH SAPPINGTON	
Direct Examination by Mr. Schumacher	375
Cross-Examination by Ms. Christenson	378
Cross-Examination by Ms. Reiss	388
Commissioner Questions	395
TYLER WILHELM	
Commissioner Questions	407

INTERVENORS' WITNESSES	PAGE
GARRY EHLEBRACHT	
Direct Examination by Mr. Swanson	423
Cross-Examination by Ms. Christenson	429
Cross-Examination by Ms. Edwards	430
Commissioner Questions	431
AMY RALL	
Direct Examination by Mr. Swanson	439
Commissioner Questions	442
TYLER WILHELM	
Direct Examination by Mr. Swanson	446
Commissioner Questions	450

STAFF'S WITNESSES	PAGE
DAVID LAWRENCE	
Direct Examination by Ms. Edwards	452
Cross-Examination by Mr. Swanson	459
Cross-Examination by Ms. Christenson	463
Commissioner Questions	469
Redirect Examination by Ms. Edwards	489
Recross-Examination by Ms. Christenson	490

I N D E X (Continued)

STAFF'S WITNESSES	PAGE
DAVID HESSLER	
Direct Examination by Ms. Edwards	494
Cross-Examination by Mr. Swanson	497
Cross-Examination by Ms. Christenson	508
Cross-Examination by Mr. Robish	511
Commissioner Questions	514
Redirect Examination by Ms. Edwards	518
PAIGE OLSON	
Direct Examination by Ms. Reiss	534
Commissioner Questions	537
HILARY MOREY	
Direct Examination by Ms. Reiss	539
Commissioner Questions	542
Redirect Examination by Ms. Reiss	549
DARREN KEARNEY	
Direct Examination by Ms. Reiss	550
Cross-Examination by Mr. Swanson	560
Cross-Examination by Ms. Christenson	580
Cross-Examination by Mr. Robish	608
Commissioner Questions	616

I N D E X (Continued)

APPLICANT'S EXHIBITS

A1	Crowned Ridge Application
A1-A	Appendix A - Figures 1 through 14
A1-B	Appendix B - Agency Coordination Dates and Correspondence
A1-C	Appendix C - Aquatic Resources Survey Report
A1-D	Appendix D - Bat Acoustic Survey Report
A1-E	Appendix E - Bat Habitat Assessment Report
A1-F	Appendix F - Dakota Skipper-Poweshiek Skipperling Survey Report
A1-G	Appendix G - Raptor Nest Survey Report
A1-H	Appendix H - Avian Use Survey Report
A1-I	Appendix I - Sound Level Modeling Report
A1-J	Appendix J - Shadow Flicker Modeling Report
A1-K	Appendix K - County Conditional Use Permits
A1-L	Appendix L - Property Value Effect Studies
A1-M	Appendix M - Telecommunication Studies
A1-N	Appendix N - Decommissioning Plan
A1-O	Appendix O - Cultural Confidential
A2	Direct Testimony Jay Haley
A3	Direct Testimony Sarah Sappington
A4	Direct Testimony Mark Thompson
A4-1	Exhibit MT-1: Resume of Mark Thompson
A5	Direct Testimony Tyler Wilhelm
A5-1	Exhibit TW-1: Resume of Tyler Wilhelm
A6	Direct Testimony Daryl Hart
A6-1	Exhibit DH-1: Resume of Daryl Hart
A6-2	Exhibit DH-2: Tax Revenues
A7	Direct Testimony and Exhibit Rich Lampeter
A7-1	Exhibit RL-1: Resume of Richard Lampeter
A7-2	Exhibit RL-2: Proposed Postconstruction Sound Protocol
A7-3	Exhibit RL-3: Low Frequency Noise and Infrasound from Wind Turbines
A8	CRW, LLC's Letter regarding Updates to Original Application
A9	CRW, LLC's Letter regarding Dropped and Moved Turbines
A10	CRW Letter, Notice Letter, and Affidavit on Notice of Public Input Hearing
A11	PUC Affidavits of Publication
A12	Supplemental Testimony of Chris Ollson
A12-1	Exhibit CO-S-1: Curriculum Vitae

I N D E X (Continued)

APPLICANT'S EXHIBITS

A12-2	Exhibit CO-S-2: Exposure to Wind Turbine Noise
A12-3	Exhibit CO-S-3: Effects of Wind Turbine Noise on Self-Reported and Objective Measures of Sleep
A12-4	Exhibit CO-S-4: Before-After Field Study of Effects of Wind Turbine Noise on Polysomnographic Sleep Parameters
A12-5	Exhibit CO-S-5: Impact of Wind Turbine Sound on Annoyance, Self-Reported Sleep Disturbance and Psychological Distress
A12-6	Exhibit CO-S-6: The Association Between Self-Reported and Objective Measures of Health and Aggregate Annoyance Scores Toward Wind Turbine Installations
A12-7	Exhibit CO-S-7: Health-Based Audible Noise Guidelines Account for Infrasound and Low-Frequency Noise Produced by Wind Turbines
A12-8	Exhibit CO-S-8: Low-Frequency Noise Incl. Infrasound from Wind Turbines and Other Sources
A12-9	Exhibit CO-S-9: An Assessment of Quality of Life Using the WHOQOL-BREF Among Participants Living in the Vicinity of Wind Turbines
A12-10	Exhibit CO-S-10: Monitoring Annoyance and Stress Effects of Wind Turbines on Nearby Residents
A12-11	Exhibit CO-S-11: Health Effects and Wind Turbines: A Review of the Literature
A12-12	Exhibit CO-S-12: Wind Turbines and Photosensitive Epilepsy
A12-13	Exhibit CO-S-13: Wind Turbines, Flicker, and Photosensitive Epilepsy
A12-14	Exhibit CO-S-14: Potential of Wind Turbines to Elicit Seizures Under Various Meteorological Conditions
A12-15	Exhibit CO-S-15: Update of UK Shadow Flicker Evidence Base
A12-16	Exhibit CO-S-16: Information on How to Identify and Assess Optical Emissions Wind Turbines
A13	Supplemental Testimony Daryl Hart
A13-1	Exhibit DH-S-1: Generator Interconnection Agreement

I N D E X (Continued)

APPLICANT'S EXHIBITS

A13-2	Exhibit DH-S-2: Maps depicting 200 MW array and potential deferral of 100 MWs
A13-3	Exhibit DH-S-3: Explanation of Turbine Status Change
A14	Supplemental Testimony Jay Haley
A14-1	Exhibit JH-S-1: Final Report CRW II Sound Study Codington, Deuel, and Grand Counties
A14-2	Exhibit JH-S-2: Final Report CRW II Shadow Flicker Study Codington, Deuel, and Grant
A14-3	Exhibit JH-S-3: CRW II 200 MW Sound Level Tabular Results Sorted by Receptor ID Realistic Case Sound Result at Land Parcel
A14-4	Exhibit JH-S-4: CRW II 200 MW Shadow Flicker Tabular Results Sorted by Receptor ID Realistic case shadow results at occupied structures Results using GE 2.3-116-90m HH, GE 2.1-116-80 m HH WTG's UTM NAD83 Zone 14 Codington Co.
A15	Supplemental Testimony Mark Thompson
A16	Supplemental Testimony Michael MaRous
A16-1	Exhibit MM-S-1: Market Impact Analysis
A17	Supplemental Testimony Robert McCunney
A17-1	Exhibit RM-S-1: Curriculum Vitae
A17-2	Exhibit RM-S-2: Exposure to Wind Turbine Noise
A17-3	Exhibit RM-S-3: Wind Turbines and Health
A17-4	Exhibit RM-S-4: Health Effects Related to Wind Turbine Sound, Including Low-Frequency Sound and Infrasound
A17-5	Exhibit RM-S-5: Measurement and Level of Infrasound from Wind Farms and Other Sources
A17-6	Exhibit RM-S-6: Low Frequency Noise and Infrasound from Wind Turbines
A17-7	Exhibit RM-S-7: Potential of Wind Turbines to Elicit Seizures Under Various Meteorological Conditions
A18	Supplemental Testimony of Sarah Sappington
A18-1	Exhibit SS-S-1: SD State Historical Society's Letter to SWCA regarding Archaeological and Traditional Cultural Property Inventory, CRW II Wind Turbine Array
A18-2	Exhibit SS-S-2: SD State Historical Society's Letter to SWCA regarding Architectural Resources Assessment

I N D E X (Continued)

APPLICANT'S EXHIBITS

A19	Supplemental Testimony Tyler Wilhelm
A19-1	Exhibit TW-S-1: Deuel Co. Ord. B2004-01-23B
A19-2	Exhibit TW-S-2: Map Land Status
A19-3	Exhibit TW-S-3: Grant Co. Ord. 2016-01C
A19-4	Exhibit TW-S-4: List of Primary and Alternate Turbine Locations and Dropped Turbines
A20	Rebuttal Testimony Christopher Ollson
A21	Rebuttal Testimony Jay Haley
A21-1	Exhibit JH-R-1 Sound modelled with Hessler and CRW proposal
A21-2	Exhibit JH-R-2 Shadow Flicker modelled with Hessler and CRW proposal
A21-3	Exhibit JH-R-3 Intervenor results with Hessler and CRW proposal
A22	Rebuttal Testimony of Michael MaRous
A23	Rebuttal Testimony of Richard Lampeter
A24	Rebuttal Testimony of Sarah Sappington
A25	Rebuttal Testimony of Mark Thompson
A26	Rebuttal Testimony of Tyler Wilhelm
A27	Supplemental Response to Intervenor IR 2-15
A27-1	Attachment 1 Map
A27-2	Attachment 2 Map

INTERVENORS' EXHIBITS

I-1	Affidavit of Garry Ehlebracht
I-2	Wind Farm Lease and Easement Agreement
I-3	Application for Party Status (Corrected)
I-4	Affidavit of Laretta Kranz
I-5	Affidavit of Steven Greber
I-6	Affidavit of Amy Rall

CHRISTENSON'S EXHIBITS

AC-1	A Cooperative Measurement Survey and Analysis of Low Frequency and Infrasound at the Shirley Wind Farm in Brown County, WI
AC-2	McPherson 6 18 May
AC-3	Riina_Bray_IWT_Niagara
AC-4	Applicant's Responses to Christenson's DR

I N D E X (Continued)

CHRISTENSON'S EXHIBITS

AC-5	Applicant's Responses to Staff's Third Set
AC-6	Attachment 1 to Staff DR 3-2
AC-7	Attachment 1 to Staff DR 3-8
AC-8	Applicant's Supplemental Responses to Staff's Second Set of DR
AC-9	Applicant's Responses to Intervenors' Second Set of DR(4)
AC-10	MN-buyout-20186-143575-01
AC-11	Attachment 1 to Intervenor 2-2
AC-12	Attachment 1 to Intervenor 2-10
AC-13	Attachment 1 to Intervenor 2-16
AC-14	Attachment 1 to Intervenor 1-1 Applicant's Responses to Staff's First Set of DR
AC-15	Attachment 1 to Intervenor 1-4 Part 1

STAFF'S EXHIBITS

S1	Prefiled Testimony and Exhibits Darren Kearney
S2	Prefiled Testimony and Exhibits Darren Kearney (Confidential)
S3	Prefiled Testimony and Exhibits of Hilary Morey
S4	Prefiled Testimony and Exhibits of Paige Olson
S5	Prefiled Testimony and Exhibits of David Lawrence
S6	Prefiled Supplemental Testimony of David Lawrence
S7	Proposed Permit Conditions

CHAIRMAN HANSON: Welcome, everyone to the hearing on Docket EL19-027. Call the meeting of the South Dakota Public Utilities Commission to order.

We will begin the evidentiary hearing in the Docket of EL19-027, In the Matter of the Application by Crowned Ridge Wind, II, LLC for a Permit of a Wind Energy Facility in Deuel, Grant, and Codington Counties. The time is approximately 9:00 a.m. The date is Tuesday, February 4, 2020, and the location of the hearing is the Matthew Training Center, Foss Building, 523 East Capitol Avenue, Pierre, South Dakota.

I'm Gary Hanson, Commission Chairman. Commissioners Chris Nelson and Kristie Fiegen are also present. I'm presiding over this hearing. This hearing was noticed pursuant to the Commission's Order For and Notice of Evidentiary Hearing issued on October 1, 2019.

The issues at this hearing as set forth in South Dakota Codified Law 49-41B-22 are, whether the proposed facility will comply with all applicable laws and rules, whether the facility will pose a threat of serious injury to the environment or the social or economic condition of inhabitants or expected inhabitants in the siting area, whether the facility will substantially impair the health, safety, or welfare of the inhabitants, and whether the facility will unduly

interfere with the orderly development of the region, with due consideration having been given to the views of governing bodies of affected local units of government.

Based upon these factors, the Commission will decide whether the permit should be granted, denied, or granted upon such terms, conditions, or modifications of the construction, operation, or maintenance of the project as the Commission finds appropriate.

The Applicant, Crowned Ridge, has the burden of proof. All parties have the right to be present and to be represented by an attorney. All persons testifying will be sworn in and subject to cross-examination by the parties.

The Commission's final decision may be appealed by the parties to the State Circuit Court and to the State Supreme Court.

Karen Cremer, our Commission counsel, will act as Hearing Examiner, will conduct the hearing subject to the Commission's oversight. She may provide recommended rulings on procedural and evidentiary matters. The Commission may overrule her preliminary rulings throughout the hearing. If not overruled, the preliminary rulings will become final rulings.

I will now turn the proceedings over to Ms. Cremer. First, I will admonish myself for reading

too quickly at the beginning. We do have a court reporter so if you're reading material, please don't pretend you're an auctioneer.

MS. CREMER: Thank you, Chairman Hanson.

Good morning, everyone. I'm going to begin by addressing some preliminary matters. The mics. are push to talk. They are live when your light is lit up green, I would call it. So that means not only that we can hear you but everybody on the web can hear you. So when you're not speaking, please turn your mics. off.

Please mute your cell phone when you are in this room. And I'm going to reiterate what Chairman Hanson said but it bears repeating, especially to the lawyers, and you know who you are, speak clearly and at a reasonable pace. If you are reading from a document, you must read slowly. This is important not only for Cheri but also for the public who's listening in on our website.

Just for your information, during the legislative section the cafe in the basement of the Capitol is open for breakfast and lunch. The restrooms are down the hall and are available for our use. However, you are not permitted to go past the bathrooms. Those are offices, and we're not allowed to wander around in this building.

The building will close at 5:00. We will go later than that. So if you go outside after 5 o'clock, the doors will be closed and you won't be able to get back in so you will have to have someone there to let you back in.

The room is locked at night so you can leave your things in here, and it will open approximately half an hour -- did you find a time? About a half-hour before we begin each day.

It's my understanding that certain witnesses are scheduled for a particular time. Is that still the case, Staff? Do you know?

MS. REISS: I believe we had one witness who -- or Mr. Swanson had one witness who may need to testify on Thursday, but I believe we may need to address that.

MR. SWANSON: I think we've come to an agreement where cross-examination on that witness will be waived. He's at sea on a ship chartered to the navy, and the phone service apparently is not real good from that location where he is.

So I don't think we'll be needing to call him, subject to the Commission's ruling on being able to waive cross on that witness.

MS. CREMER: With that, this is how we'll proceed: We'll have the case in chief from Crowned

Ridge. That will be followed by the Intervenors represented by counsel. That will be followed by the pro se Intervenors. And then Staff's case. Crowned Ridge as the Applicant has final rebuttal.

Witnesses that have filed direct, supplemental, rebuttal, whatever you called your testimony, must offer all of their testimony when they are initially called. Cross-examination will include all of the witness's testimony.

Have your witness begin with a brief summary of their testimony, and then we will proceed to cross-examination.

We will begin this evidentiary hearing by taking the appearances of the parties.

Crowned Ridge.

MR. SCHUMACHER: Thank you. Miles Schumacher and Brian Murphy on behalf of Crowned Ridge.

MS. CREMER: Mr. Swanson.

MR. SWANSON: Let the record show the appearance of A.J. Swanson of Canton, South Dakota. I'm admitted to practice in this state, and I appear on behalf of the Intervenors Garry Ehlebracht and several others.

MS. CREMER: Ms. Christenson.

MS. CHRISTENSON: Amber Christenson, Intervenor, representing myself.

MR. ROBISH: Allen Robish, Strandburg, South Dakota, representing myself.

MS. CREMER: Ms. Mogen.

So it's my understanding Ms. Mogen will not be here for the hearing; is that correct?

MR. ROBISH: Right.

MS. CREMER: Thank you.

Staff.

MS. REISS: Thank you. Amanda Reiss and Kristen Edwards for Staff.

MS. CREMER: I understand the parties have agreed to the admission of exhibits for foundation purposes, meaning throughout the hearing people can move to strike, if need be, or whatever motion may be appropriate.

And is that correct?

MS. REISS: Thank you. Yes. That is correct. The parties have stipulated to the admission of all prefiled exhibits except for those that are duplicative, and I can go through those if you would like at this time.

MS. CREMER: Do we need that? I forwarded -- let me do this: Crowned Ridge, do you agree with her assessment of the exhibits?

MR. SCHUMACHER: We do. Except there is a

pending Motion to Strike parts of the prefiled Intervenor testimony. That needs to be resolved. We've stipulated to everything except the portions that we are seeking to strike.

MS. CREMER: Correct. And I will get to that in a moment, but thank you.

Mr. Swanson.

MR. SWANSON: That is my understanding as well.

MS. CREMER: All right. Ms. Christenson.

MS. CHRISTENSON: My understanding as well. And then I did have a late-filed exhibit. And I believe everyone has stipulated to that, but I'd like that clarified for sure.

MS. CREMER: Mr. Robish.

MR. ROBISH: Allen Robish. I agree with that.

MS. CREMER: Okay. And you're good with Ms. Christenson's late-filed exhibit?

MR. ROBISH: Yes.

MS. CREMER: Staff.

MS. REISS: Yes. I would agree with Ms. Christenson. We have agreed to S19, I believe -- or AC. I'm sorry. AC-19. And then also Staff filed an S7 this morning and that has not been agreed to at this time.

MS. CREMER: All right. Thank you. I will ask

Crowned Ridge as to Ms. Christenson's late filed.

MR. SCHUMACHER: Thank you. Crowned Ridge has no objection to the late-filed exhibit.

MS. CREMER: Okay. Mr. Swanson, Ms. Christenson's late filed.

MR. SWANSON: No objection.

MS. CREMER: All right. Thank you.

So, with that --

So as all the parties have stipulated to the admission of these exhibits, they are admitted into the record at this point. That brings us to the Motion to Strike.

And so we have two options here. We can hear it now, or we can wait until we see what witnesses Mr. Swanson calls.

MR. SCHUMACHER: We're fine either way. Waiting is fine. If you prefer to hear it now, we'll address it, but we have no preference.

MS. CREMER: I prefer to cross bridges when we get there. So we will wait on that.

MR. SWANSON: May I make a statement about that, please?

MS. CREMER: Certainly.

MR. SWANSON: When this began, I was expecting to call all of the Intervenors that I represent. As

stated, Mr. Greber is on a ship and not able to attend personally.

I believe that Mr. Schumacher has agreed, and I believe Staff has also, that they are willing to waive cross-examination of Mr. Greber on his exhibit. And I've also had indication as of last Friday that my other Intervenor who is unable to attend is Laretta Kranz, and she had sponsored Exhibit 5 -- no. Exhibit 4.

I-4 is her number, I believe. And I was told on Friday that Ms. Kranz had recently had her TENS unit replaced for a larger one which communicates with nerves in the back to control back pain, and it's not working well. And I told her that I would discuss this with the Commission and parties today.

My understanding, Staff has agreed also to waive cross on Ms. Kranz. Her testimony was not the subject of a Motion to Strike, and I don't think I've heard from Mr. Schumacher in that regard.

MS. CREMER: So I guess --

MR. SWANSON: Well, I'm going to propose that her testimony, along with Mr. Greber, who is under a Motion to Strike a small portion, that both of those documents be admitted and that cross-examination be waived.

This is subject obviously to the Commission's

discretion on whether they're willing to allow those exhibits to be received even though those two witnesses are unable to personally attend.

MS. CREMER: And it would also require the Commission to agree to waive their cross-examination of these witnesses so that's what -- I will look to them.

So before I start that, I will go back to Crowned Ridge. Did you have a response to Mr. Swanson?

MR. SCHUMACHER: Yes. I will confirm that Crowned Ridge has agreed to waive cross-examination of those two witnesses and allow in addition to the testimony -- again, subject to the Motion to Strike with regard to Mr. Greber's testimony.

MR. SWANSON: You also have one on witness Ehlebracht.

MR. SCHUMACHER: Right. I thought we were just discussing Kranz and Greber at this point.

MR. SWANSON: You're right.

MS. CREMER: Yes. And is it accurate, Staff, that you are fine with these affidavits, I believe they were, coming in -- was there prefiled testimony coming in without cross-examination? Is that correct?

MS. EDWARDS: We had no cross for these witnesses, and we had agreed to waive it with the understanding that they would have to be called if the

Commission had questions.

MS. CREMER: All right. Thank you.

And Ms. Christenson.

MS. CHRISTENSON: I'm agreeable, no, to waive all cross.

MS. CREMER: Okay. And Mr. Robish.

MR. ROBISH: I agree with that.

MS. CREMER: All right. Thank you.

So, with that, it appears the Commission also agrees to waive cross-examination of those two witnesses, subject to the Motion to Strike.

All right. Thank you. So I think we're now at opening statements. If you wish to make an opening statement, it's limited to five minutes. You can make your opening statement now or at the start of your case.

Crowned Ridge.

MR. SCHUMACHER: Thank you. Crowned Ridge has no formal opening statement to make. We would at this time like to request that we have a standing objection to portions of the opening statement of Mr. Swanson.

He's indicated by e-mail that he intends to address matters and statutes that we believe are beyond the scope of this hearing and are beyond the jurisdiction and enforcement power of this Commission. And we can, you know, make that objection more specific at the time,

but we would like the opportunity to note that objection now so that we can proceed without having to interrupt him while he's making his opening statement.

MS. CREMER: Thank you.

I think just -- we'll be clear. When he does start his -- if he does an opening statement, I believe I will have you object at least once, if that's still your choice, and then the standing objection would be granted, I would suspect.

Mr. Swanson, would you like to make an opening statement now or at the start of your case?

MR. SWANSON: I think I'll make it now. And I have a red flag in my briefcase if Miles would like to borrow it so that he can just wave it.

To be perfectly clear, we do base our opposition to this matter on the statute that the Chairman cited, substantially impair the health, safety, and welfare and so forth of these inhabitants. But our opposition is also based on the property rights of the Intervenors.

Each of my clients is within or very near the project boundary. Each is projected to receive noise of more than 40 dBA, according to Exhibit A29, Table C-1. And each Intervenor's home will receive shadow flicker from anywhere from 13.33 hours down to 3.4 hours, according to another Table C-2 in that Exhibit A21-2.

Noise and shadow flicker are among the so-called effects mentioned in the Kranz easement, which we will introduce to the record. This is the effects easement Section 5.2, and it's part of a lease that has somehow appeared in the record that Mr. Kearney references in DK2, page 42.

In attempting to deal with participants, Crowned Ridge obtains an easement for these effects. In dealing with nonparticipants, however, many of whom are located more closely to the wind turbines than the participants, there is no such easement. Nothing but the zoning ordinance of the three counties to provide cover to Crowned Ridge.

In Deuel, for example, that ordinance was amended in 2008 for a shadow flicker allowance of 30 hours per year and a sound level of 45 dBA at homes of nonparticipants. The question is does the zoning power as delegated to the counties in this state actually give Deuel County the right to tell Crowned Ridge as to these effects, yes, you can invade their property and the homes of your neighbors to this much or to this extent?

In the Commission's Final Order in EL18-026, Prevailing Wind Park, at paragraph 65 we find, "The record demonstrates that 40 dBA at nonparticipating residences is an appropriate reasonable sound limit to

protect the welfare of nonparticipants." And then at 67, paragraph 67 on that same final order, "The record demonstrates that a 30-hour-a-year limit is merely an industry standard," and the Commission went on to find that in that case it should be 15 hours for nonparticipants. And I have two general points I'd like to make about that.

First, the PUC has made the noise finding in EL18-026 on the strength of an expert's opinion, Mr. Hessler. You've been delegated, the Commission, the authority to make a determination as to the substantial impairment of health, safety, or welfare of inhabitants. The legislature gave you no other apparent guidelines to follow.

Is this a proper delegation of authority, and are there sufficient standards in place? These, of course, are the kinds of questions that lawyers and judges tend to ask.

The PUC by regulation does not seem to have filled the gap, and you are doing this on an ad hoc, case-by-case basis. And I ask this question: If 40 dBA at nonparticipating residences is appropriate and reasonable to protect the health and welfare of those at Prevailing Wind Park, how can 45 dBA as a theoretical limit be appropriate and reasonable in the Commission's

words, in this case?

You will have a skilled expert at hand to inform you, Mr. Hessler, one who has long experience with other wind farms on noise, and he has written extensively on this topic. I would submit the human auditory systems of those who surround Crowned Ridge II in Deuel County, my clients, in part, are not materially or substantially different than those of the humans who live in and around Prevailing Wind Park. These systems appearing, whether in Bon Homme or Deuel County, have the same exact designer.

If a lower sound pressure limit is appropriate in one case, how can a substantially higher limit be deemed appropriate in another, this case? The difference is not a trifle? Witness Hessler can and will state, I trust, that relationship as a percentage. I believe it is a phenomenal difference.

MS. CREMER: Mr. Swanson, that was your five minutes.

MR. SWANSON: Well, okay. I'm only trying to edify the Commission on the participants as to our position, and if that's it, that's it.

MS. CREMER: How much more do you have?

MR. SWANSON: Well, I'm on page 2, and I've got to get to page 3. And I'll make it as brief as I can. I

promise you.

MS. CREMER: Yes, you will.

MR. SWANSON: All right.

Secondly, I noted that in EL18-026 the 30 hours isn't noted to be an industry standard. And it's ubiquitous everywhere in this country, but it stands on an extremely flimsy foundation. That's the NARUC Best Practices Report of January 2012, this 182-page compendium by Tom Stanton.

And I have asked the Commission or I would like to ask the Commission to take official notice both of the NARUC Best Practices Report and of Witness Hessler's October 2011 report to NARUC, which I will further identify at the appropriate time.

You're going to have two witnesses in this case that contributed to these seminal documents. My point is, in reality South Dakota has imported some part of German law into Deuel County and by implication now or -- or inference into the rulings of this Commission, and that is 30 hours of shadow flicker is just fine.

I hope to be able to explore some implications of this importation with witnesses that are being presented here today, other limits that did not make it to our zoning ordinance or this Commission's prior rulings.

German policy on shadow flicker is one thing. South Dakota Law, I think, is quite another. South Dakota Codified Laws 43-13-2(8) describes a land burden or servitude upon land that may be made appurtenant to other land in the form of an easement. All of my clients are landowners, and they claim the privilege and the protection of that statute.

The statute reads, "The right of receiving air and light or heat from or over or discharging the same upon or over land." Very few words. That statute has never been construed in a case. Before coming here I pulled my Compiled Laws of Dakota Territory of 1878 off the shelf just to see if it was there. Yes, it was, the same exact language, codified in our territorial days well over 100 years ago, and yet it's relevant in this proceeding.

You cannot simply take light from the sun, run it through a blender and discharge it at will under the homes and the lands of Intervenors simply because Deuel County claims to have that in their zoning power. I doubt it.

Now I want to remind the Commission that when Crowned Ridge finds it necessary to take an easement for these effects --

MS. CREMER: And I'm just going to at this

point -- this is really closing argument. This is not an opening statement. So I need you to either wrap it up or be done.

MR. SWANSON: Well, how about I hold the rest of this then until we can make a closing statement.

MS. CREMER: Yes. We will brief that. Thank you.

Ms. Christenson.

MS. CHRISTENSON: I'm going to waive the opening statement.

MS. CREMER: All right. Thank you.

Mr. Robish.

MR. ROBISH: None for me also.

MS. CREMER: Thank you.

Staff.

MS. REISS: Staff has no opening statement. Thank you.

MS. CREMER: All right. All right. Thank you.

Commissioners, anything else before we start?

Crowned Ridge, you may call your first witness.

MR. MURPHY: Thank you. I call Tyler Wilhelm.

(The oath is administered by the court reporter.)

DIRECT EXAMINATION

BY MR. MURPHY:

Q. Please state your name, business title and company

for the record.
A. My name is Tyler Wilhelm. I'm the senior project manager of business development for NextEra Energy Resources, LLC, or NEER.
Q. What is your role with Crowned Ridge Wind, II?
A. I am responsible for the development, permitting, community outreach, regulatory compliance, and meeting the commercial operations date of the project.
Q. Please provide a short overview of your education and experience.
A. I've been employed by NEER since 2015 in various roles, including land agent and project developer on a number of wind projects, including the Crowned Ridge Wind I project located in South Dakota.
Prior to joining NEER, I attended the University of South Dakota where I received my B.A. in business.
Q. Did you prefile Direct Testimony and exhibits on July 9, 2019, Exhibit A5 and A5-1, Prefiled Supplemental Testimony and exhibits on September 20, 2019, Exhibits A19 and A19-1 through A19-4, and Prefiled Rebuttal Testimony on January 8, 2020, Exhibit A26?
A. Yes.
Q. Do you have any changes or corrections to the prefiled testimony and exhibits?
A. Yes, I do. I have one correction to Exhibit 5A,

page 1, line 11. I would like to correct the word "third" and replace it with the word "fourth" to clarify the project's commercial operations date to correctly reflect that it is projected to occur in the fourth quarter of 2020, not as formerly listed as the third quarter of 2020.

Q. So can you read the sentence as corrected?

A. The corrected sentence would be, "The project's COD is planned to occur in or before the fourth quarter of 2020."

Q. Thank you. Please provide a short overview of your prefiled testimony.

A. The Crowned Ridge Wind, II -- I'm sorry. Crowned Ridge Wind II is a project that will bring considerable benefits to the State of South Dakota and the local community. Not only is the Crowned Ridge Wind II a zero emissions clean energy source, the project provides a number of significant benefits in the form of property taxes, landowner payments, temporary construction jobs, and permanent operations and maintenance jobs.

The Crowned Ridge Wind II project has been actively developed for over a decade in which our project teams had the privilege of meeting and working with numerous landowners, tribal and local governments, and federal and state agencies.

Through community engagement efforts our team has successfully designed the project to be compliant with all county, state, and federal requirements, while actively working with all three counties to adopt new wind siting ordinances that increase the setback distance from nonparticipating landowners and, two, addressing concerns with the siting and placement of proposed project facilities through detailed coordination with local tribal representatives and private landowners.

Our team is thankful for the opportunity to be before the Commission and Staff. Once again, we are thankful for all the time and effort that has been put forth in the review of the Crowned Ridge Wind II facility application.

MR. MURPHY: Thank you.

With that, I offer the witness for cross-examination.

MS. CREMER: Mr. Swanson.

CROSS-EXAMINATION

BY MR. SWANSON:

Q. Mr. Wilhelm, do you have access -- and maybe this is part of your testimony, but I'm referring to an exhibit which is actually a Staff Exhibit S1 for Mr. Kearney, and there are certain responses that you made to him to Staff discovery requests.

I'm referring to DK2, page 21. Do you per chance have that?
A. One second here. I'm sorry. You said DK2?
Q. DK2, page 21 of 157.
A. All right. I'm here.
Q. You've got the page that says -- I think it's 1-8 where you were discussing good neighbor agreement. Do you have that in front of you?
A. Yes, sir.
Q. What is the good neighbor agreement?
A. The way that the question was asked from us is, you know, does the Applicant offer a good neighbor contract. And I think that's a term that's used by some developers in the industry.

Our interpretation of a good neighbor contract would be an agreement reached with a landowner who initially chose not to participate in the wind project and a means of providing compensation to those nonparticipating landowners.
Q. All right. Would the good neighbor agreement provide for some sort of easement? Is there a form that we can look at?
A. We have not offered good neighbor agreements on this project. We have participating agreements, which are a little bit different. And the good neighbor contract is

kind of a broad term used across the industry.
Q. Well, is the participation agreement like the wind easement agreement that you have produced?
A. We have several means by which somebody could participate in the project. There's a number of standard easements that landowners can enter into. The wind farm easement agreement is one of those.
Q. Well, I think in 1-8 you indicate that -- something about the need to mitigate impacts or identify impacts on nonparticipants. Is that a fair statement of what your testimony was?
A. Yep.
Q. Or --
A. Yep. That is correct.
Q. All right. Is this something that Crowned Ridge or NewEra [sic] has done in the past in dealing with impacts on nonparticipants?
A. We have entered into, again, like a participation agreement with landowners who are nonparticipants to begin with. It's a means for them to participate in the property.
An example of that would be somebody who has a smaller tract of land and would not have the opportunity to host infrastructure but would still like to participate in the project in some form.

Q. All right. And what kind of impacts are you attempting to address?
A. You know, there is -- you know, there is some noise and shadow flicker, you know, impacts that can come from the project. Again, the participation agreement is our means of entering into an agreement with nonparticipants to get an easement in place so they can be a part of the project.
Q. So by participating or by offering that agreement, are you simply offering money, or are you looking to lessen the impact as perceived or received at their property?
A. There is compensation associated with our participation agreements. And, you know, with that comes an easement of some sort. You know, at the end of the day we have to site these projects in compliance with all local and state siting requirements so there's -- you know, whether a nonparticipant wants to sign what we call a participation agreement or not, we're held to the same siting standards with that landowner.
Q. Have you seen the document that has been marked Exhibit I3, which is the so-called -- I've referred to it before as the Kranz easement. Are you familiar with that document? The one that's got the name Adam McDonald written at the top of it.

A. Yes. I'm familiar with that.
Q. All right. Were you employed with the company at the time that that document was prepared, if you know?
A. Yes, I was.
Q. All right. Are you familiar with the part of that document that's captioned Section 11.10, Remediation of Glare and Shadow Flicker? It's on page 11.
A. I'm sorry. You said 11 point --
Q. 11.10.
A. Okay. Okay.
Q. This paragraph or this section is no longer used by Crowned Ridge in its current easement agreements; is that correct?
A. I cannot exactly confirm that. I know that Adam McDonald was employed as a land agent on this project. I don't know what year this was exactly handed over to the landowner.
Q. Well, the document that we're looking at that 11.10 is part of is an easement agreement, and so would have been offered to someone you hope to become a participating landowner; is that correct?
A. Yes, sir. That's a fair statement.
Q. All right. At least under that easement with the Section 11.10 in it, this provision would have obligated Crowned Ridge to come back and deal with mediation or

remediation of glare or shadow flicker in the home; is that correct?
A. I would say partially correct. If, you know -- I associate remediation or further investigation to be associated with noise and shadow flicker, numbers that would be higher than what's permitted at the county level. And we are in full compliance with this project.
Q. But you're no longer using these provisions that would have obliged you to come back and do something, take some measure such as tree planting or installation of awnings to mitigate the glare or shadow?
A. I cannot confirm if this language has been taken out of our standard agreement that's used in current time.
I can tell you that, you know, we are required to be within certain levels of noise and shadow flicker at the county level. And if, you know, there is suspicion that we are exceeding those, you know, that we would be willing to investigate it to ensure that we are in compliance. And, you know, if there is undue hardship, you know, found, that we would, you know, work with that landowner to mitigate the situation.
Q. In your capacity have you ever considered whether the persons such as Intervenors might have a property right not to be affected by your effects?
MR. MURPHY: Objection. Calls for a legal

conclusion.

MS. CREMER: I would sustain.

Q. You have put into the record a full, unredacted version of your current Wind Lease Agreement that starts at page 70 of 157. That's all part of DK2, part of Exhibit S1, which I understand Mr. Kearney is going to sponsor.

Do you want to turn to that document?

A. Can you give me the page number again, please.

Q. Yeah. It's page 70 of 157.

A. Okay. I'm on page 70.

Q. Is there anything in that page that would indicate a Section 11.10? Are you on the first page of the lease?

A. I am, sir.

Q. Turn then to -- I'm sorry. To page -- it would be at page 11 of that lease.

A. Okay.

Q. Is there a Section 11.10?

A. I do not see a Section 11.10 on this page, sir.

Q. It goes directly from Section 11.9 to Section 12; is that correct?

A. Sorry. You said it goes from 11.9 to --

Q. Section 12 on taxes?

A. That is correct.

Q. There's no Section 11.10.

A. I do not see a Section 11.10 in here.
Q. The whole purpose of you offering this Wind Lease Agreement is so that you can come into privity of contract with those that do have property interest; am I correct?
MR. MURPHY: Objection. Calls for a legal conclusion.
MS. CREMER: Mr. Swanson, do you have a response?
MR. SWANSON: Well, I'm asking the reason for having developed this lease with participants, and/or possibly nonparticipants that we're trying to work up to. Who do they deal with? Do they offer it to anyone, someone who lives in an apartment, or is it to landowners?
MR. MURPHY: I have no objection to the way he rephrased it, but that's very different from the question that was asked.
MS. CREMER: And I would agree with that. So I will sustain his objection as to calling for a legal conclusion.
But I believe you can ask the question that you then went to. But you may need to break it into separate parts. It was compound.
Q. Well, the lease that you have in hand, which you

believe is the current version, is a document that you offered to landowners that are in the boundary area of the project. Am I correct?

A. Yes. That's correct.

Q. To the extent that you would offer a good neighbor agreement or a participation agreement to someone who doesn't have wind turbines, do I understand your prior testimony to say that your provision for dealing with the effects of noise, shadow flicker is still structured as an easement on their land?

A. Can you please repeat the question. Sorry.

Q. To the extent that you would offer an agreement to nonparticipants, people who did not participate in the project initially, but you are attempting to deal with some effect, noise, shadow flicker, for example, and you come along and offer another agreement that I think you called a participation agreement, that agreement does have easements in it. Am I correct?

A. Yes. Yes, it would.

Q. And what would that easement provide, to the best of your knowledge?

A. I mean, it's an exchange for participation in the agreement -- or in the project. I mean, there is -- I mean, there's an effects easement in there. There's a number of things. It's our means of getting folks,

again, as I stated earlier, who may not have enough land to participate in the project. It's their means to get compensated and participate.

Q. All right. So the effects easement that would be in this participating agreement or participation agreement offered to someone who does not have wind turbines, would that effects easement look much like the effects easement that's Section 5.2 of that same current lease?

A. Yes. I would say 5.2 and, you know, 5.1. Yes.

Q. Oh, you would require a wind nonobstruction easement from a person who does not have wind turbines but you're offering a participation agreement to?

A. I'm not 100 percent sure if the wind nonobstruction easement is in there so I would maybe correct my former statement. But I do know that 5.2 is language that would be reflected in a participation agreement. Yes, sir.

Q. All right. And you do not -- you did not produce an example of that participation agreement in your testimony.

A. I don't -- I don't recall if I did. Sorry.

Q. Did you produce it to Mr. Kearney as part of the discovery requests or data requests, if you know?

A. I'm happy to follow up on that. I do not recall at this time.

Q. All right. I'd be happy if you could late file that

as an exhibit to this record.

MS. CREMER: Crowned Ridge, do you have a response?

MR. MURPHY: Yes. I think the data request speaks for itself. The agreements that we provided are the agreements that we have. We don't have any other agreements. So there's nothing to file.

MS. CREMER: So there's nothing to file so there will not be a late filed. Thank you.

MR. SWANSON: Okay. I understood there was such an agreement that is extended to make initially nonparticipants into a participating owner of some sort. Am I correct on that?

MR. MURPHY: No. You're not correct. What I just said is the agreements we've used in this project have been filed. The questioning has been hypothetical, and he is answering in a hypothetical fashion.

MR. SWANSON: Well --

Q. So you haven't used any such participating agreements as we've been talking about?

A. I think some of the confusion here is that, you know, to what was just stated as far as what has been provided in the form of agreements, a participation agreement with a -- with somebody who was once a nonparticipating landowner could be in the form of a wind

easement agreement, all right, or an option agreement for a wind easement.

You know, there's language in there for us to enter into an agreement with these landowners, allow for them to participate, allow for them to get compensation from the project. It doesn't necessarily mean that there is a wind easement on the property to host wind infrastructure or underground collection or anything of that sort.

It's a means for us to include everybody in the project that wants to participate, regardless of how much land they have. And that's something that we offer to everybody if they're willing to participate.

Q. But you have not offered anything like that to -- on your South Dakota projects, if I understand correctly.

MR. MURPHY: Objection. Clearly the witness thinks he's answered it multiple times. So asked and answered.

MS. CREMER: Mr. Swanson, do you have a response?

MR. SWANSON: I thought the witness was describing a participation agreement that would be offered to those who do not host wind turbines. That's my understanding of his testimony.

But yet when I ask whether those have been used or offered on these South Dakota projects that's the

point of my inquiry. I'm trying to decide or determine whether there is such an agreement, and if there is an easement that would be in it, what would it cover?

MS. CREMER: Mr. Wilhelm, do you understand where the confusion lies? There was an amount -- a hypothetical when it started.

THE WITNESS: Uh-huh.

MS. CREMER: But can you just clarify for us -- and, if you know, point to what exhibits -- where those easements are, if you have a number.

THE WITNESS: I think it would be helpful if I can give an example of how people participate in the project without hosting wind infrastructure.

MS. CREMER: Certainly.

THE WITNESS: That would get there, which is my understanding different of a good neighbor agreement.

You know, when we develop these projects, you know, we have to be able to access properties to conduct a number of surveys on the property. And a lot of times when we enter into these option agreements we are not able to host infrastructure on properties, whether that be a wind turbine, underground collection.

Just because they're not hosting anything doesn't mean that they're no longer a participant in the project. You know, we could renew that lease with them

so they can be a part of the project for, you know, the life of the project, regardless if they're hosting any infrastructure or not.

That is what we would offer to people as participation in the project, even though you're not hosting any infrastructure is an annual compensation that's associated with that. It's in the form of the same leases that we have provided in our responses.

You know, it ultimately depends on what we're able to do on the property to determine your level of participation. You know, I apologize if I was confusing earlier that there was a separate agreement. You know, it's just considered a participation agreement. There's language in there from the Wind Easement Agreement.

Q. So you would fashion perhaps a reduced Wind Lease Easement Agreement and offer that as the participation agreement?

A. No, sir. What we have filed as our agreements used within the project is what we filed. If there's not a redacted form of this, then that's not something that we utilize on the project.

Q. All right. But in dealing with these what were nonparticipating landowners and if they were to enter into this participation agreement, even though they're not hosting wind turbines, it would be then a document

that looks much like the document you produced to Mr. Kearney. Am I correct on that?
A. Which document is that?
Q. It's the lease that is -- actually I think Mr. Schumacher produced it. It's the document that is starting at page 70 of DK2, which purports to be a current unredacted version of the easement agreement that you currently use.
A. That's correct.
Q. All right. So that's the document you use?
A. Yes.
Q. All right.

MR. SWANSON: That's all I have.

MS. CREMER: Thank you.

Ms. Christenson.

CROSS-EXAMINATION

BY MS. CHRISTENSON:

Q. Tyler, in your testimony you agree to comply with CUPs and the SEP, and you have no plans to vary -- well, it wasn't in your testimony. It was in answer to a data request.

You have no plans to vary from the CUPs and the SEP that you've received?

A. So I'm going to ask you to repeat the question. I think I heard two different things in there. Was it

something along the lines of are we ensuring that we're going to be compliant? And then there was a second part to that that I wasn't following.

Q. In the data request you answered that you agree to comply with the CUPs and the SEP and you have no plans to vary from those CUPs or the Special Exception Permit, as it's called in Deuel County.

A. Again, I think I heard two different things there.

Q. Okay.

A. So yes. We absolutely ensure that we are going to be compliant with the Conditional Use Permit approvals and the Special Exception Permit approvals received for this project. Absolutely.

Q. Okay. The date of the approval for the Grant County Conditional Use Permit was December 17, 2018. Do you agree with that date?

A. Yes, I do.

Q. Okay. Now if you would refer to the Applicant Exhibit 19-3, page 1, in the lower left-hand corner.

A. Can you refer to -- what document is that? Is that from the county application?

Q. It's just the county ordinance for Grant County that you submitted. Do you want to just borrow my copy?

A. Yeah. That would be great. Appreciate that.

Q. Yeah.

A. Okay. Help me out here. Which are we looking?
Q. Okay. In the lower left-hand corner of page 1 of that document would you please read to the Commission the date the Grant County ordinance was adopted.
A. It shows December 28, 2018.
Q. Okay. Thank you. December 28, 2018. That would be 11 days after you received your Conditional Use Permit; correct?
A. That would be correct, that it was officially adopted after we received our permit approval, but our --
Q. Okay.
A. -- permit application was also 100 percent consistent with everything that was --
Q. Okay. I just -- I'm just clarifying dates --
A. Okay.
Q. -- at this point.
Now please read to the Commission the date of the -- the effective date of the ordinance. In that same lower corner.
A. January 28, 2019.
Q. Okay. So like a month and 10 or 11 days after you received your Conditional Use Permit.
So at the time you received approval for your Conditional Use Permit for Crowned Ridge II the prior ordinance was in effect governing that Conditional Use

Permit, not the version that's submitted in A19-3; correct?

A. That would be correct. But I would like to state that when we filed our Conditional Use Permit application it was in compliance with what they were working towards adopting.

We were a part of that iterative process with the counties to get a new wind ordinance in place, and our application that we filed is 100 percent consistent with what was adopted after our filing and our approval date.

Q. There is a new ordinance but your Conditional Use Permit we agree was not in effect -- or your Conditional Use Permit was granted under the old ordinance, whether or not we were working toward a new ordinance?

MR. MURPHY: Objection. It's argumentative in the sense of inferring legal theories and facts into a question instead of just asking a question.

MS. CREMER: Ms. Christenson, do you have a response?

MS. CHRISTENSON: I'm just trying to clarify for everyone else that -- because he offered information saying they were working toward a new ordinance, I just want to clarify that ordinance was not in effect. That's the whole point I'm trying to get to.

MR. MURPHY: Now I have a different objection.

She is an attorney pro se, and she is not testifying before the Commission. So she can ask questions, but she cannot testify or infer inferences or legal conclusions.

MS. CREMER: And I would agree with Mr. Murphy on that. There's a lot of -- you're implying a lot of facts that aren't in evidence. So I'm going to sustain, and you need to ask a new question.

MS. CHRISTENSON: Okay. I really don't need to ask a new question. I've already established the dates. So that's fine. I was just trying to clarify, but we're good.

Q. Okay. So the Exhibit A19-3 are the mocked up pages of the ordinance that was put forward for adoption on the 28th of December. So where there's highlights and strike-outs, would those be the old ordinance changes that are being -- if it's structure out, it's not going into the new ordinance?

Would that be your understanding?

A. One second here. I'll try to confirm that. Because this is a working document here versus --

So my interpretation of this is everything that would be highlighted would be information that was going to be adopted, newly inserted, and considered in the new ordinance. Everything that has a line through it or is

stricken through would be information that would be removed.

Q. Correct.

Okay. So I would like to show you this document. And I'm not sure how to go about doing that.

MS. CHRISTENSON: I can present the document to the witness? And I have copies for everyone.

MS. CREMER: I'm not sure what we're using it for. Is it impeachment, or what are we doing here?

MS. CHRISTENSON: Clarifying the ordinance that was used.

MS. CREMER: And this is an ordinance in what county?

MS. CHRISTENSON: Grant.

MS. CREMER: Yes. You may show him the document.

MR. MURPHY: I would like a copy, please.

MS. CREMER: And if you have it, you should provide --

MS. CHRISTENSON: I did. I don't know who Amanda said -- or was it Kristen told me to make 11 copies. I'm not sure who the 11 copies would be for.

MS. CREMER: It would be one for everybody here and one for the court reporter.

(The document is distributed.)

Q. (BY MS. CHRISTENSON) If you're ready, Mr. Wilhelm, I just provided you with a document, the title Grant County Compiled Zoning Ordinances dated 1-25-2018. And that is the ordinance that was in effect until the new ordinance took effect at the end of 2018.

MR. MURPHY: Objection. There's testimony and legal conclusions in these questions, and I'm not hearing a question. I'm just hearing testimony about Grant County's process, and I don't see anybody from Grant County here to authenticate it.

MS. CREMER: And my problem is we have no jurisdiction over this.

MS. CHRISTENSON: Correct. I'm just laying the foundation that the ordinance submitted by the Applicant differs from the ordinance that was in effect. And you can see by strike-out and highlight what the ordinance was versus what it's going to be in their Exhibit A19-3.

So this is -- the parts that are struck out are actually this ordinance. It's just easier to follow.

MS. CREMER: So is your objection to the exhibit itself coming in or her line of questioning?

MR. MURPHY: It's more the line of questioning.

MS. CREMER: Okay.

MR. MURPHY: And the more I think of it, it's a legal argument. If they want to make a legal argument

that there's an invalid county permit, they can do that on brief.

I'm having difficulty with legal inferences in questions to a witness who is not -- that's not the purpose of his testimony, and we're not in Grant County. We're before the Commission.

CHAIRMAN HANSON: I think she needs to be allowed to ask the question before we know what her question is.

MS. CHRISTENSON: I am not arguing the validity of the CUP, for your clarification, Mr. Murphy, if that helps you. I'm not arguing that. I'm trying to make the language clearer because the exhibit provided by you showing the ordinance is difficult.

The ordinance in effect, which you have in strike-out form, is this exact thing.

MS. CREMER: I'm going to cut to the chase here. Mr. Wilhelm, do you recognize that document, and is it different?

THE WITNESS: I do recognize both documents. And what we provided is Exhibit A19-3 is the markup version of what the final ordinance came to be. And the providing of this was our means of showing what changed in the ordinance so people could track it, and we were a big part of that process and something that we're proud

of.

So it's just the redline or marked-up version of what was just provided to me.

MS. CREMER: Okay. So now I'm going to have you identify the one you keep referring to as this one, this marked up one.

THE WITNESS: Sorry. I apologize.

MS. CREMER: What's the number on it?

THE WITNESS: AC-18 is the one I just received from Ms. Christenson. And then A19-3 is the marked-up version.

MS. CREMER: All right. Does that answer your question, Ms. Christenson?

MS. CHRISTENSON: I think we're fine. We're in agreement. So I'd like to offer this to be marked as an exhibit and be entered into the record.

MS. CREMER: Staff.

MS. REISS: No objection.

MS. CREMER: Crowned Ridge.

MR. MURPHY: No objection.

MS. CREMER: Mr. Swanson.

MR. SWANSON: None.

MS. CREMER: Mr. Robish.

MR. ROBISH: No objection.

MS. CREMER: So it is admitted. Thank you.

MS. CHRISTENSON: Okay. Exhibit AC-18.
Q. (BY MS. CHRISTENSON) In my second data request to the Applicant, Exhibit AC-4, question 2 I requested a sound study which would incorporate the lack of low noise trailing edge blades in the Crowned Ridge I project into the sound modeling for this Crowned Ridge II project.
Would that be your understanding of my question in that data request?
A. If you could repeat the question and answer while I try to locate that, I think that would be helpful.
Q. I requested a sound study which would incorporate the lack of low noise trailing edge blades in the Crowned Ridge I project into the sound modeling for this Crowned Ridge II project.
Would that be your understanding of that question?
MR. MURPHY: I'm just -- I'm having trouble following where that question is located. I don't doubt that it was asked. I'm just not -- if you can clarify --
MS. CHRISTENSON: Sorry. Exhibit AC-4, question 2.
A. Is there something you could help provide me with so I could verify?
Q. Maybe. If you want to look at my laptop, I have it pulled up.
A. I think Brian and Miles are trying to help me out

here.
Q. I can read it verbatim if you would prefer that?
MS. REISS: Did you bring paper copies of your exhibits?
MS. CHRISTENSON: No. Not the ones that were in the record already, no.
MS. REISS: Okay. We're going to need those for the record.
MS. CREMER: Do you have it? Otherwise, you could read the question and read the answer.
Q. (BY MS. CHRISTENSON) The question: "Provide an updated sound study incorporating the lack of low noise trailing edge attachments in the Crowned Ridge I project."
The response: "Crowned Ridge Wind II objects to Data Request 3-2 because it seeks a study that is not relevant and is not reasonably calculated to lead to the discovery of admissible evidence in this proceeding before the PUC, given that the LNTE attachments for Crowned Ridge Wind I will be installed on or before September 15, 2020, well prior to the Crowned Ridge Wind II becoming operational in the fourth quarter of October 2020."
So I was going to ask you if I read that correctly, but I think I did.

Okay. My question concerning that answer provided by your company are, one, if Crowned Ridge Wind II is permitted and construction for your reduced version of the project, 200 megawatts, is completed prior to October, are you guaranteeing here today that commercial operations will not begin before October?

A. We're slated to reach commercial operations in fourth quarter of this year. I think us coming online in October would be aggressive, but I wouldn't want to count anything out. I mean, obviously we'd want to be able to go online as soon as we can.

Does that answer your question?

Q. So never -- you're guaranteeing that it would never be in the third quarter?

It would not be before October 1? That's my question, I guess.

A. I don't want to guarantee you that. I'm saying our project schedule is definitely within -- is reflective of the fourth quarter of this year. I wouldn't want to count anything out. If we have the means of bringing this project online -- it's already been delayed in the delivery to the customer. I mean, we'd like to be able to do what we can. It's just not reflective of our current schedule right now.

Q. Okay. So there is a possibility then in your

estimation that the project could come online before all low noise trailing edge blades would be installed in Crowned Ridge I?

A. To answer your question, I would say it's very, very unlikely. And if it did, we would obviously address, as needed, to ensure that, you know, there's not cumulative impacts from, you know, our project operating in Crowned Ridge II that would be, you know, adding to any issues from, you know, lack of installment of the LNTE blades on Crowned Ridge I. Is that --

Q. Okay. So really my request for a sound study incorporating that, you would not consider that beyond the scope of a possibility that you would have to incorporate the sounds from Crowned Ridge I not having low noise trailing edge to Crowned Ridge II?

I know that's not a very good question. But what you're saying is a possibility. And I feel like maybe my data request was reasonable. Do you feel my data request was reasonable?

MS. CHRISTENSON: There. I got a question.

A. Yeah. Reasonable in the sense if we were coming online with Crowned Ridge II to where it would apply to add to potential cumulative impacts.

But our response is is that we're not scheduled to. And so it doesn't -- it doesn't necessarily apply. You

know, we're coming online in the fourth quarter of this year, after the installment of the LNTE blades on Crowned Ridge I is completed.

Q. Okay. If Crowned Ridge I does not install low noise trailing edge attachments on all of its 87 turbines by September 15, as is the target in the waiver, are you guaranteeing here today that Crowned Ridge II will not begin commercial operations until all of the attachments are installed, according to Docket 19-003?

A. Are we ensuring that we will not reach commercial operations prior to the completed installment of LNTE blades on Crowned Ridge I?

Q. Yes.

A. I think it's fair to say that it's very unlikely that we're coming online, you know, prior to the fourth quarter of this year. So it's very unlikely that that situation would occur.

In the event that it did, we would act as necessary, coordinate with the Commission, you know, to ensure that, you know, everything is where it needs to be as far as sound assessments and things of that nature.

Q. So perhaps if you were permitted for this project, you would be agreeable to a condition regarding commercial operations if Crowned Ridge I blades are not installed, low noise trailing edge blade attachments?

A. I would say no.
Q. Okay. I'm not sure if you should answer this or Mark Thompson because he actually responded to the question in my data request. And maybe you need to coordinate with him, but I'll ask you first since you're the senior project manager on the project.

In my second data request to your company, still on AC-4, my first question was "Provide the exact turbine model of each turbine you intend to use in the project." Mr. Thompson's response was, and I can read this for you, "Crowned Ridge Wind II will use nameplate 2.1 megawatt and 2.3 megawatt wind turbines in the General Electric 2 Megawatt 116 Model Series."

Since the turbines for this project were purchased June 28, 2016, and September 26 of 2018, are those specific turbines purchased on those dates still available for use in this project?
A. Given that that response was sponsored by Mark Thompson, I would defer that question to Mark when he's up here.
Q. Okay. I'm not sure I can ask this correctly.

In a statement you made January 13, 2020, in a Grant County Board of Adjustment meeting the board was reviewing a Complaint regarding the building of your sister project, Crowned Ridge I. You're also senior

project manager of that project. And the discussion was centered around a 1.7 megawatt, 80 meter hub height turbine. That wasn't very long ago. You probably remember that pretty well.

That turbine was changed to an 80 meter hub height turbine. And it's either a 2.3 or a 2.7. We're not sure. It hasn't been determined yet which model it is. I'm not talking nameplate. I'm talking model.

And you said -- and I can quote you here and I do have a video if we need to do that but I'll read you your quote and you can tell me if you agree with that.

You had filed the application and listed the 1.7s and "that was our intention to use those machines at that time. As time proceeds and project delays occur and things of that nature, as a wind developing company, we purchase our turbines in mass quantities and those were used on a next-up basis across our entire fleet. The GE 1.7s were initially designated to our project and they were utilized by another project in our portfolio because it was on a quicker time line than us and they were next in line to be used.

Does that accurately reflect what you recall saying?

A. It sounds somewhat familiar so what -- I'm not going to agree word for word, but it sounds familiar, yes.

Q. Okay. So my question then is in that project the

turbines that were purchased for that project were used by a different project in your portfolio.

My question would be, since you answered that question, would these turbines that were purchased be available still, or would they have been used up on a next-up basis, like the 1.7 turbine, 80 meter hub height?

A. I'm not really understanding the question.

Q. Okay.

A. In regards to this docket and Crowned Ridge II, we've completely listed the turbines that we intend to use on this project, being the 2.1 megawatt and 2.3 megawatt machines. We have no intention of using any other nameplate capacity turbines on this site.

Q. Okay. Thank you.

In your response to question 8 of Exhibit AC-9, Intervenors' Data Request, you state, "Crowned Ridge will comply with the CUP and SEP permits and has no plans to vary from the CUPs and SEPs." I brought that up earlier.

Do you consider a deferment with possibly not building at all one-third of the project a variance from the permit?

A. No. I would not. When the decision was made to defer 100 megawatts of the project, we were in open communication with the county. We're not concerned with it.

Their biggest concern is our ability to maintain compliance on the site. They know that the project is highly desired by many members in the community that we've had leases with for several years. And they hoped that we were able to be successful in procuring that 100 megawatts.

I would say that it is different in the -- you know, varies in the scale of the size of the permit, but I think that's irrelevant because we are permitted up to a number of turbine locations within these and have the flexibility which is necessary most times in wind development to accommodate the changes. But we have the flexibility to, you know, not use some of the locations or, you know, things of that nature.

Q. Thank you.

Since you brought up notification of the counties, I noticed in your exhibits that you notified the counties on September 25 and October 1, yet NSP had downsized their agreement with you on August 16.

Why was there a delay in notifying the counties?

A. So when the commercial decision was made to defer 100 megawatts, which was with coordination with NSP, after that time it was a -- required a lot of work from our project team to be able to understand what that did to the project. You know, kind of the, you know, show me

the sausage, don't tell me how it's made type of thing. It took a lot of time and resources for us to understand how that was actually going to impact the project.

We did have high-level discussions just through verbal communication that there would be changes coming. But the last thing that we wanted to do was provide, you know, preliminary changes to the project that could be circulated around and misinformation be started.

And, most importantly, we wanted to make sure that we had clear communication with the Commission, you know, with our supplemental testimonies filed on September 20.

Q. Thank you.

You indicated in your data response to Exhibit AC-9, question 11, that full title searches were anticipated to be completed by the end of January, 2020. Are those title searches complete?

A. I'm sorry. Can you please repeat the question?

Q. You indicated in your data response to Exhibit AC-9, question 11, "Full title searches are anticipated to be completed by the end of January, 2020."

Are those title searches complete?

A. I think they are. If they're not complete, they are very close to being completed.

Q. Thank you.

Have there been any surprises, or are you aware of

any problems in the title searches at this point?
A. No, I am not.
Q. Intervenors also asked in this same exhibit, AC-9, question 12 in a data request -- the question was, "Will the Applicant mortgage or leverage assets of the project?"
Crowned Ridge answer, which was provided by you, I believe, if I may paraphrase, that after the transfer of Crowned Ridge II to Northern States Power, Northern States Power may issue bonds or raise other financing which uses the project's assets as collateral.
My question is are the landowners also known as participants aware their property may be used as collateral?
A. That response was made in coordination with the future owner of the project being Northern States Power. And, you know, that was information that was supplemented to us. That's not my understanding. But then again, I don't want to interpret, you know, Northern States Power's language with that response.
Q. So you didn't respond to that? That was a response by --
A. Yeah. Let me correct. I sponsored that response, yes.
Q. Okay.

A. With coordination and communication with Northern States Power, as they are going to be the owner of the project moving forward.

Q. Thank you.

Could NSP's use of participator's properties as collateral affect the participators using their own property for collateral such as operating loans, mortgages, things like that?

A. I would like to actually defer the -- defer that question to somebody else on our project team who's probably more inclined to answering that.

Q. Who would that be?

A. I would say Daryl Hart.

Q. Thank you.

Exhibit AC-17, Applicant's response to Intervenors' question 10. We asked for a list of all affiliations, entities, associations, partnerships, agents, et cetera, that have been associated with the Applicant and NextEra since 2008 in South Dakota.

My question here is I do not see Blattner Energy on the list of your associations. Would you tell me why they're not listed? Should they be?

A. I would say they should not be listed.

Q. Can you explain that to me since they're building the project for you?

A. I don't -- I'm sorry to interrupt when you're talking.

I actually don't have that in front of me. I understood -- I would like to be able to see the question and the response that was given.

MR. MURPHY: If I could help, Tyler, it's the third -- it's one of their Data Requests, and I think you should have it. It's the first set; correct? And it's question 11.

MS. CHRISTENSON: I will give it to you, Tyler. I've got it right here.

MR. MURPHY: Or question 10, 1-10. It's on the very last --

A. Unfortunately, my books took a spill before coming here, and it's not well put together. So I would appreciate if I could see that.

(Witness examines document.)

A. Do we have the date by which this response was provided?

(Mr. Murphy provides document to the witness.)

A. So to follow up on my response earlier, did I feel like Blattner Energy should be associated and listed with this response, I would stand behind my former statement and say no.

This question is asked directly towards Crowned

Ridge Wind II, LLC, which, you know, Blattner is the EPC contractor who constructs the projects. You know, they were very active on Crowned Ridge I.

But given the context of this question and the point of Crowned Ridge II, I would say Blattner not being included is correct.

Q. Who is constructing the Crowned Ridge II transmission line?

A. That would be Blattner Energy.

Q. So they should be included here then?

MR. MURPHY: Objection.

Q. Am I wrong?

MR. MURPHY: He's answered that. I have an objection.

The objection is that he has answered the question twice, and he stands by the answer in the interrogatory. It doesn't mean that the pro se Intervenor likes the answer, but that is the answer.

MS. CREMER: Well, do you have a response, Ms. Christenson? I'm sorry.

MS. CHRISTENSON: My response would be perhaps he wasn't thinking about the transmission line being a part of Crowned Ridge II.

MR. MURPHY: Then the objection would be scope as well.

MS. CREMER: Mr. Wilhelm, can you clarify for us?

A. Sure. So based off of the date that this was responded to and the project that this -- that the data request was filed for, which is Crowned Ridge Wind II, the wind docket -- Blattner Energy has not been a part of or associated with Crowned Ridge Wind II, the wind project, to commence any of the construction.

Now we permitted our transmission line under a separate docket in which Blattner Energy has, you know, started construction on the Crowned Ridge II T-line, which we have all applicable permits for. So I stand behind my response.

MS. CREMER: Did that answer your question?

MS. CHRISTENSON: I'll ask another. Thank you.

Q. Would you read the question for me, please, the data request.

A. "Provide a list of all the affiliations, entities, affiliated entities, corporations, associations doing business as limited liability company incorporation, partnership and agents that have been associated with the Applicant NextEra and Crowned Ridge Wind II since 2008 in South Dakota."

Q. Will your answer change concerning Blattner Energy now that you've read NextEra in the question?

A. Well, NextEra, I mean, when it's not the -- I mean, I don't want to get into the weeds here, but NextEra, NextEra Energy Resources, LLC? I mean, this is our parent company that's -- you know, I --

Crowned Ridge Wind II, LLC is an indirect subsidiary of NextEra Energy Resources, LLC. NextEra is spelled wrong. It's -- I mean, this isn't coming together here the way this question's asked.

MR. MURPHY: The objection here would be we had an objection in the data request. NextEra is not the Applicant. The Applicant is Crowned Ridge Wind II, LLC.

And the reason the objection was there, it was over broad. NextEra Energy Resources is not the Applicant.

MS. CHRISTENSON: Thank you.

Q. My next question, is Crowned Ridge Wind II a subsidiary of NextEra Energy Resources?

A. Yes, it is.

Q. Thank you.

In Exhibit AC-9 Intervenors asked in question 2-3 the weight of each blade. The weight answered by Mr. Thompson is an astonishing 25,203 pounds.

My question is this, and I'm asking you because I believe you provided the decommissioning information in this project. But if it's someone else, we can ask

someone else.

At the end of the life of this project there would be 396 blades if a 300-megawatt project with 132 turbines were built. And there will be other blades during the life of the project that need replacing. These blades will require disposal. The weight of those blades at the end of life -- just at the end of life is 9,980,570 pounds of refuse. Or if you use the shipping weight, that would be 11,840,004 pounds of refuse.

Not knowing if any of the blades are toxic at this point, and we will assume that they're not for the sake of this question, where will Crowned Ridge II intend to dump 10 to 12 million pounds --

And that number doubles if you add in Crowned Ridge I because they'll become end of life at the same time. Where would you dump those million pounds of blade refuse? What's your intention?

A. So I would first say that Crowned Ridge I, you know, although -- separate subject here. You know, it's going to be owned and operated by NextEra Energy Resources, LLC, which is a different story than the Crowned Ridge Wind II, LLC project, which will be owned and operated by Northern States Power, which will be responsible for the decommissioning of the project. So I cannot speak for certainty on their full processes.

You know, through communication with them, I know that they intend to coordinate with whatever local services possible on the dismantlement and, you know, delivery of the decommissioned blades. I can't get into specifics on that as to how they would go about doing it.

Q. On this project as well. Because Crowned Ridge II is going to retain ownership of this project after -- NSP is going to transfer ownership back to Crowned Ridge II, I believe I read. Yes. So --

A. No. No. Crowned Ridge Wind II, the project and operating facility will be sold to Northern States Power for them to own and operate until they say otherwise.

We have no stake in Crowned Ridge II once the project is built and sold to Northern States Power. We will continue to operate our sister project to the north, Crowned Ridge Wind I but not Crowned Ridge Wind II.

Q. You're right. You're NextEra; you're not Crowned Ridge. So I get that confused a little bit. Okay.

Are you now or have you ever been a Crowned Ridge Wind II employee?

A. I'm employed by NextEra Energy Resources, LLC, which Crowned Ridge II is a subsidiary of NextEra Energy Resources, LLC.

MS. CHRISTENSON: Okay. That's all my questions. Thank you.

MS. CREMER: So I'm trying to figure out a break time.

Mr. Robish, do you have much?

MR. ROBISH: Short.

MS. CREMER: Everybody says that.

CROSS-EXAMINATION

BY MR. ROBISH:

Q. Okay. This Crowned Ridge II is covering three counties; is that correct?

A. Yes, sir.

Q. It would be Codington, Deuel, and Grant?

A. That's correct.

Q. What building permits does each county have to have?

A. Can you rephrase the question, please.

Q. For each turbine that's built what building permit would they have to have for each turbine?

A. We are required to obtain building permits on a turbine -- by turbine, on a turbine-by-turbine basis.

Q. Are they all the same in Codington, Deuel, and Grant? The same permitting process?

A. No. It's three different counties. We go through three different local jurisdictions on the filing of the applications. And they're also approved by different individuals.

Q. Okay. Well, will the Applicant display all building

permits at each site location?
A. I would -- I think that's more of an E and C construction. I'm sorry. Engineering and construction. I'll defer that answer to Mark Thompson.
Q. Mark Thompson?
A. Uh-huh.
Q. Well, it will probably be the same. Or will --
Where will they be displayed, and when will they be displayed? Would that be the same person?
A. Yeah. I would like to defer that to Mark Thompson as well.
MR. ROBISH: Okay. Thank you. I'm done.
MS. CREMER: And you were accurate.
Staff.
MS. REISS: All right. I have a few. It will likely be brief.

CROSS-EXAMINATION

BY MS. REISS:
Q. All right. Good morning, Mr. Wilhelm.
A. Good morning.
Q. I just have a few questions for you. If you can recall -- and if not, I can provide you the document. On pages 6 and 7 of your direct testimony, you discuss coordination with the FFA; correct?
FAA. I'm sorry. That's a big difference. The FAA;

correct?
A. I'm sorry. You said page 6?
Q. 6 and 7.
A. From the Direct?
Q. Yes.
A. Okay. Yep.
Q. Okay. You indicate in your testimony that six turbines are required to still receive determinations of no hazard; is that correct?
A. Yes. At that time that was what was stated.
Q. Has that changed at this time?
A. Yes. There's actually only one turbine location that's outstanding.
Q. Okay. Do you have a time line as to when Crowned Ridge Wind expects to receive a determination of no hazard?
A. For this particular turbine we are actually going to hold on filing for our DNH on it.

Through our consulting with Capital Air Space and through coordination with the FAA it has been expressed that there is potential radar saturation in this part of eastern South Dakota and that, you know, we would coordinate with them further on the placement of a turbine if so fit. So we are holding on that filing of Turbine Alt. 8.

Q. Can you explain what radar saturation means?
A. I'll do my best.
You know, again, we work with a number of consultants. You know, through coordination with Capitol Airspace it was expressed to us that when there is a certain number of proposed structures that have, you know, a tall height to them within certain proximities to certain radars, those radars have the potential risk for saturation.
Now I think it's important to note that what's considered to be potential risk for saturation is also a lot of proposed development sites. So, you know, a number of what is being perceived as a risk of saturation could be, you know, another developer in an adjacent state, you know, throwing out the potential for building a 300-megawatt project. And those do have to be included.
So our intention is to wait to see what happens with the future development of other projects, see if they materialize, and see how we can proceed. So I went a little bit too far, but I was trying to clarify what I did.
Q. Thank you. That was helpful.
On pages 6 and 7 you also discuss coordinating with the FAA regarding approval of an ADLS; is that correct?

A. That's correct.
Q. Do you have a time line in mind as to when that application will be submitted to the FAA?
A. Yes, I do. Right now we're targeting April of this year.
Q. And based on your experience, do you have any idea as to how long that process would take to get approval?
A. We've tracked it through our coordination with them in the past, and historically we've seen anything from 65 to just over 100 days. We are expecting a July approval time frame.
Q. Okay. And then just jumping back, would that one remaining turbine that hasn't received the determination of no hazard, would that have any effect on the approval of the ADLS?
A. No.
Q. Do you by any chance know which turbine has not received the determination of no hazard?
A. Yeah. That would be Turbine CR2 Alt. 8.
Q. Thank you. And then one final question regarding the ADLS. Does Crowned Ridge Wind intend to have ADLS operating in this project prior to commercial operation date?
A. By commercial operations, yes.
Q. Thank you.

And just to jump back, you had a conversation with Mr. Swanson where you discussed participation agreements. Do you recall that?

A. I do.

Q. I promise I won't get too far into the weeds.

Based on your knowledge and understanding of those agreements, would it be an accurate statement to say someone signing a participation agreement would be -- well, would someone signing a participation agreement be classified as a participating landowner or a nonparticipating landowner?

A. They would be considered to be a participating landowner.

Q. And would it then be an accurate statement to say that there are siting benefits to the company in having additional landowners classified as participating landowners?

A. Yes. There could be, yes.

Q. All right. Jumping to your Supplemental Testimony, you indicated that Crowned Ridge Wind II is still required to renew three existing wind easement agreements; is that correct?

A. Yes. That was stated in the Supplemental Testimony.

Q. Can you provide an update on the status of those three renewals?

A. Yep. The three -- actually let me turn to make sure that -- I'm sorry. What page on the Supplemental Testimony?
Q. I believe it was the final page. Page 7.
A. Uh-huh.
Q. Line 5.
A. Yes. I just want to make sure what was written in here. But, yes, we have renewed everything to support the project as proposed.
Q. Okay. And then just one final question. There were a number of changes made to the turbine status since the initial Crowned Ridge Wind II application was filed. Can you explain the changes that occurred and the reason for those changes?
A. Yeah. And I think, so I don't confuse anybody any further, if I would be allowed to stand up and use this map to kind of walk everybody through the changes since our filing?
MS. CREMER: Certainly.
Mr. Wilhelm, is there an exhibit number attached? That's just a blown-up version of what exhibit number?
MR. MURPHY: I believe it's A27-2, if I --
THE WITNESS: That's correct. That's correct.
A. Okay. It may be hard to see. We tried to blow this

up as best we could. Am I loud enough?

So this represents 300 megawatts worth of turbine array and site plan. Since the filing of our project, as many people are aware, we had a deferral of 100 megawatts of the site. So we are proceeding with full confidence on the 200 and waiting for our ability to procure the 100 megawatts that is currently deferred.

The black turbine locations here, those represent the primary turbine locations in the 200 megawatt project. We have these nine turbine locations over here located in blue. Those represent our safe harbor turbines.

We have the green turbines down here, which are represented by the primary turbines in our 100 megawatt array, as well as one located up here being CR2 Alt. 3. And the one, two, three, four yellow dots we have on here reflect the safe harbor turbines in the 100 megawatt array.

So some of the notable changes, we have dropped Turbine 103, as well as 113 and 131. 103 and 113 were part of the Hessler proposal, and through our further due diligence through that, we have also relegated four turbines from primaries to alternates and vice versa as part of the Hessler proposal to reduce potential noise impacts on surrounding properties, and that resulted in

Turbines 13, 72, 77, and Alt. 5 would become the four alternate locations in the project.

And the four turbines that took place of them and were relegated to primaries were Turbines 94, 97, 134, and Alt. 6.

And I think that's all I've got for this exhibit here.

MS. REISS: All right. Staff has nothing further at this time. Thank you.

MS. CREMER: Thank you. That brings us to Commission questions. Do we want to go forward with that or take a break? I'll say my Fitbit is asking me if I'm alive.

So we will break -- we will back at 10 after 11:00.

(A short recess is taken.)

MS. CREMER: I'll call the hearing back into session following that short recess. I believe we were up to Commissioner questions.

And Chairman Hanson.

CHAIRMAN HANSON: Thank you, Ms. Cremer.

Mr. Wilhelm, good afternoon. Or morning. I guess we're still in the morning. I'm going to ask you the same question four different ways. I'll wait for an objection, and then I'll note the objection.

COMMISSIONER FIEGEN: Yeah. Right.

CHAIRMAN HANSON: Does the financial viability of the project depend upon state subsidy?

THE WITNESS: I would say that our ability to be able to procure the project up to the 300.6 megawatts is dependent upon some relief, I would say. You know, it gives us more certainty that we would be able to procure an additional 100 megawatts because of the uncertainty that comes with it from, you know, the network upgrade side of things.

CHAIRMAN HANSON: Are you in the process of requesting a subsidy at the present time from the State?

THE WITNESS: We are. We are beginning to prepare an application at this time, yes.

CHAIRMAN HANSON: Can you give us the amount of the request?

THE WITNESS: I'm actually not familiar with the amount. This is something that's very new that we are just now pulling together.

CHAIRMAN HANSON: Have you requested or received a statement that you're going to receive subsidy on prior projects?

THE WITNESS: Yes.

CHAIRMAN HANSON: Do you know what the amount of those are?

THE WITNESS: I don't have it on me. Something that I either work to provide, or I could actually pass that to one of our other witnesses. Daryl Hart would be able to respond to that.

CHAIRMAN HANSON: Have you sold all of your prior projects to other entities such as NSP?

THE WITNESS: No.

CHAIRMAN HANSON: In your Direct Testimony on page 1 you state that, "NEER is the world's largest generator of renewable energy from wind and sun in generating over 19,000 megawatts in 20 United States and Canada."

It's difficult for me to believe -- and I want you to explain why on earth is it necessary to have a subsidy from the State of South Dakota to build this project?

THE WITNESS: When marketing these projects and vetting them -- you know, when you're actively marketing these projects to potential buyers to the PPA or PSA side of things we look at historical trends that we have seen as developing in certain states.

You know, when we've developed in South Dakota previously, you know, we worked with -- to receive the South Dakota tax reimbursement program. And those economics go into assumptions when bidding your project

and, you know, makes your project more economic and competitive when bidding your projects.

CHAIRMAN HANSON: Not really answering the question other than the fact that you make more money that way; correct?

THE WITNESS: I realize that I didn't necessarily answer your question. So if you could please repeat your question, I'll try to do a better job at it.

CHAIRMAN HANSON: We'll go on to a different question.

Is your project competitive with other generating facilities, new generating facilities such as natural gas, coal, et cetera?

THE WITNESS: Yes, sir. I would say.

CHAIRMAN HANSON: So would you agree that the product, the megawatts, are less expensive than other newly constructed generating facilities?

THE WITNESS: I would say it's very competitive. I can't confirm if it's less expensive. I would say very competitive.

CHAIRMAN HANSON: So it really doesn't seem necessary to have a subsidy, is it, if you're competitive and if it's less expensive than other new energy?

THE WITNESS: I would say that, you know, the goal of being a wind developer is to have -- or is to be

able to provide a product and energy at the least possible cost to the potential customer, and pursuing the subsidy in the State of South Dakota made us more economic and competitive against potential competitors across state lines. You know, maybe across the border.

It also helps us kind of leverage uncertainties that are within the interconnection world that we face on this project.

CHAIRMAN HANSON: Well, it's your intent, as you testified, to sell this to NSP. Is that a guarantee at this juncture?

THE WITNESS: The completed sale of this project?

CHAIRMAN HANSON: Correct.

THE WITNESS: Assuming we receive all the necessary permits and build in compliance with the purchase and sale agreement, yes.

CHAIRMAN HANSON: So it's not really dependent upon a subsidy from the State then; correct?

THE WITNESS: Yes.

CHAIRMAN HANSON: Thank you.

On page 6 of your Direct you state, "There will be no lights on the towers other than what is required by the FAA."

If the State -- if the PUC in our conditions

require an ADLS, are you stating that you would oppose that?

THE WITNESS: I'm going to ask you to repeat the question or rephrase it a little bit so I can understand it a little better.

CHAIRMAN HANSON: Am I to infer from your statement on page 6 that I stated -- am I to infer that if the FAA were to state that you did not need the ADLS and yet the PUC said as a condition that you would have ADLS, would you contest that in Circuit Court?

THE WITNESS: I would say yes.

CHAIRMAN HANSON: What's the cost of an ADLS on one tower if you are -- I don't want you to look at it from the cost of just placing it on one tower. But one tower in relationship to having it on multiple towers.

THE WITNESS: Is the question what would be the cost of one ADLS radar on one tower versus having multiple ADLS radar towers?

CHAIRMAN HANSON: Forgive me for my confusion on that question. I just did not want you to allocate bringing a crane in to place it on just one tower. I wanted you to give us an idea of what it would cost to place an ADLS on one tower. If you were placing them on numerous towers, what would the cost be?

THE WITNESS: The way I'm understanding the

question is you want to understand the cost of an ADLS system tower without the added costs that come from installation and all of those pieces? Or are you talking -- when you say "per tower" this is where I'm confused. Is it per wind turbine tower, or are we talking about ADLS tower?

CHAIRMAN HANSON: Talking about one tower. Cost for --

COMMISSIONER NELSON: Average.

CHAIRMAN HANSON: Thank you. What's the average cost to place ADLS?

THE WITNESS: I would say -- on a per radar basis I would say just shy of -- just shy of a million. Between three-quarter of a million and a million.

CHAIRMAN HANSON: Do you have any concern regarding the timely application of the LNT blades on this project?

THE WITNESS: No, I do not.

CHAIRMAN HANSON: You discussed the local conditional permits. Are you aware of any conflicts of interest by any of the parties?

THE WITNESS: No, I am not.

CHAIRMAN HANSON: There have been some changes to the requirements by the counties, as was explained by Mr. Robish.

Have you requested other variances from those requirements?

THE WITNESS: No, we have not.

CHAIRMAN HANSON: Do you agree to abide by all of the requests from the South Dakota Game, Fish & Parks?

THE WITNESS: I would say yes.

CHAIRMAN HANSON: On the last page, page 12 of your Direct Testimony, you state, "The wind facility will deliver enough energy to power more than 150,000 homes." Can you give us an idea of what the number of hours per year is produced --

Let's see. Perhaps I can rephrase that so it's a little easier to understand.

What are the average hours -- let's see. I'm trying to figure out, without going through the same confusion I did with my previous question.

THE WITNESS: Megawatt hours on an annual basis?

CHAIRMAN HANSON: That would be great. Thank you.

THE WITNESS: And I'll follow up with that and say I'm happy to supplement that information. I do not have that in front of me right now.

CHAIRMAN HANSON: All right. I'll look forward -- since I didn't articulate the question and you did, I'll look forward to your answer.

Thank you.

THE WITNESS: Yes, sir.

CHAIRMAN HANSON: Those are all the questions I have.

MS. CREMER: Commissioner Nelson.

COMMISSIONER NELSON: Thank you.

I'm going to follow up on Commissioner Hanson's question about the ADLS cost because I want to be very clear about that. For this project can you describe the ADLS infrastructure that will need to be utilized?

THE WITNESS: I can explain on a high level. We do have Mark Thompson who is much more inclined to respond to that.

COMMISSIONER NELSON: I could certainly wait and ask Mark that question if you'd prefer.

THE WITNESS: Okay. Yeah.

COMMISSIONER NELSON: So the questions that I've got directly for you come off of Exhibit A27-2, the map.

THE WITNESS: Uh-huh.

COMMISSIONER NELSON: We've got the blue and yellow turbine dots that are indicated as safe harbor turbines. And I know from a financial perspective that means something to your company, but to us it's simply a difference in hub height; is that correct?

THE WITNESS: Yes. Yeah. Yes.

COMMISSIONER NELSON: And how did you choose those particular locations for those shorter towers?

THE WITNESS: So the siting of safe harbor turbines in close proximity to one another comes from a number of things.

One, we often place these shorter hub height towers in areas of less wind resource so the taller towers can capitalize more on better wind resource areas. Oftentimes they will be strategically placed to minimize wake within the project because they're a bit smaller and they have a smaller nameplate capacity.

From an engineering standpoint, it does help with the collector lines, the sizing of underground circuits. And then also minimizes potential mishaps on the delivery side of things with turbine components and blades. You know, there's a lot coming into the project, and having them in the general area does help.

COMMISSIONER NELSON: Thank you.

So we've got the 100 megawatts that's under plan deferral right now. And as I'm looking at those green dots, we've got -- most of them are concentrated in the southeast corner, but we've got Turbine 34, Turbine 55, and Alt. 3 that seem to be a little bit separated from that larger cluster.

Can you help me understand what the reasoning

was in that?

THE WITNESS: So, like, for instance, Alt. 3 towards the top, that was a less suitable turbine location within our 200 megawatt design and, you know, was just delegated to be a part of the primary turbine -- part of the 100.

I think I could maybe have somebody else on our team follow up with a better and more precise response than that.

COMMISSIONER NELSON: And who should I ask that to?

THE WITNESS: I would ask that to Mark Thompson.

COMMISSIONER NELSON: Okay. Mark's taking notes back there. I can tell. So but I've got a follow-up question, but I'll save that for Mark also with the understanding if he can't cover it, you're coming back.

THE WITNESS: That's fine. Fair enough.

COMMISSIONER NELSON: That's all I've got.

THE WITNESS: Thank you.

MS. CREMER: Commissioner Fiegen.

COMMISSIONER FIEGEN: Thank you, Mr. Wilhelm. You're just about done, except for --

CHAIRMAN HANSON: Cross.

COMMISSIONER FIEGEN: Yeah.

I want to go back to your opening statement. Or

in your opening statement I guess you did a concise statement of what you put in your brief. You talked about zero emission at the source.

So does this wind project ever use electricity that is generated from fossil fuels?

THE WITNESS: I'd say yes. During certain points of the project's lifespan, yes.

COMMISSIONER FIEGEN: Okay. Because sometimes when we claim that zero emission from a project, yes and no. I mean, there's a little gray area --

THE WITNESS: Sure.

COMMISSIONER FIEGEN: -- that I think the public certainly has to be aware of.

So I went back to my public input meeting notes this past week. And I'm not an attorney so I just get to ask you questions --

THE WITNESS: Sure.

COMMISSIONER FIEGEN: -- because I'm a Commissioner, and I bet you I'm not going to get a lot of objections.

But in these notes that I had a lot of people were talking about Bemis. And they were talking about the county did not put that mile zoning requirement in there.

THE WITNESS: Uh-huh.

COMMISSIONER FIEGEN: And I think I saw -- I can't remember whose testimony it was of their 27 people. Can you explain to me why Crowned Ridge II when they developed this -- although I understand the county ordinance didn't do that -- how far away are these residents in Bemis that live there from a wind turbine?

And I understand that's pretty much that 100 megawatt project that's not here yet but --

THE WITNESS: As far as approximate location, I would like to be able to follow up on the exact distances there. I don't have a number I could say with 100 percent accuracy here.

COMMISSIONER FIEGEN: So did the company -- when they looked at the wind turbine sites did they take that into consideration that there are 27, or whatever the record reflects, people living there? And did they take into consideration more distance, even though you weren't required by the county?

THE WITNESS: Yeah. We take into consideration a lot of things. And during the ordinance revision process, you know, bigger setbacks were implemented from towns such as Goodwin and the Lake Park Districts, which, you know, didn't allow us to spread the project out as much as we would have liked to.

But yeah. Absolutely. Those -- we addressed a

lot of the concerns and did what we could to mitigate the situation.

COMMISSIONER FIEGEN: So I'm going to go back to that 100 megawatts because that kind of was new after the Application was filed with us so we keep on reading all the additional information --

THE WITNESS: Sure.

COMMISSIONER FIEGEN: -- on that. And it looks like a MISO issue and a cost issue.

But I think of these people that live down there and especially the nonparticipants. So if for some reason they want to sell their property or someone wants to build a home on those nonparticipant properties in that 100 megawatt area and we have a permit for that, would you adhere to the county policy of a nonparticipant and the wind turbine being that certain distance away from a new resident that would be moving in and maybe building a new home?

Because how long do you have to just put those people on hold?

THE WITNESS: Sure. So assuming that we would -- you know, the project would be approved, you know, as listed in the application at 300.6 megawatts, you know, our understanding is that that permit would be good for four years before we would have to potentially

do something or construct the project.

You know, during that time, you know, absolutely, we're going to be in the area operating on the 200 megawatt site and have an O&M team out there and are happy to coordinate with anybody on such issues.

It's going to require us to come back in front of y'all to coordinate further as well, you know, when the time comes for us to be able to procure that 100 megawatts.

So, you know, we're happy to accommodate to the extent possible with new planned development.

COMMISSIONER FIEGEN: Okay. So what you're telling me is we have another bite at the apple for that 100 megawatts? Because I feel like I should ask all my questions these next four days for the 100 megawatts.

THE WITNESS: I apologize how I phrased that.

What I meant was not come before you guys but to coordinate with you guys. We're keeping you guys apprised on the MISO studies and how viable the 100 megawatts are. You know, keeping that in mind, just knowing when -- you know, it is feasible based off of what questions may be coming from the community, we're happy to coordinate to the extent possible.

COMMISSIONER FIEGEN: Thank you.

And, you know, I wasn't going to ask this

question, and now I -- we've had so many permits in front of us, I swear I'm getting confused.

So the wind turbines close to I-29, was this Crowned Ridge II that I asked that question or Crowned Ridge I? I thought -- so I asked before in a permit that they stay away or try to stay away a certain distance from I-29. How far is like CR226 [sic], 19, 13 away from I-29?

And I feel like I'm getting confused because --

THE WITNESS: Can you restate the turbine numbers?

COMMISSIONER FIEGEN: There's turbine numbers that are kind of close to I-29. It looks like they're 26, 19, and 13.

THE WITNESS: Oh, I'm sorry. Down here (indicating)?

COMMISSIONER FIEGEN: And it's the slant. Right.

THE WITNESS: I'm going to do the best I can here without having the --

CHAIRMAN HANSON: Microphone, please.

THE WITNESS: I'm sorry.

COMMISSIONER FIEGEN: And so I know I asked at another -- I can't remember if it was this permit or other permit? Was it Crowned Ridge I? Was it Crowned

Ridge II?

Oh, it was Tatanka. Tatanka.

THE WITNESS: I was going to say, I don't recall.

So using the scale here, right, this is 2 and a half miles. I'll do the best I can here, but it looks like it would be underneath the 2 and a half mile mark.

COMMISSIONER FIEGEN: Okay. Thank you.

And I believe that's my only question, except I just have a curious question on the map that is in your filing.

The lakes -- what is the black lines around these lakes? Instead of a circle. Is that --

THE WITNESS: Yeah. It was used for some -- I don't know the -- I don't have the exact answer. I know it was used for some sort of data set, maybe from our environmental scanning where it was a rough polygon to identify it.

You know, I could get you more information, or somebody from our environmental team I'm sure could better address that.

COMMISSIONER FIEGEN: I tried to look at all the keys, and I couldn't quite figure that out.

So thank you.

MS. CREMER: Crowned Ridge, do you have any

redirect?

But before that, can you just -- and I've been telling them I'm going to ask this question. Can you tell me who your next two witnesses are, just so we can prepare?

MR. MURPHY: It's contingent on -- our property value witness, Mark MaRous, was supposed to be here this morning. His flight yesterday was canceled. My understanding is he'll be here around 1:30. It depends on when we break. We would like to bring him on next. And after that would be Daryl Hart.

MS. CREMER: Thank you.

MR. MURPHY: And Mark Thompson after that.

MS. CREMER: So do you have any redirect?

MR. MURPHY: I have brief redirect.

REDIRECT EXAMINATION

BY MR. MURPHY:

Q. Mr. Wilhelm, in response to a Staff question, you pointed out that Alt. 8 is still in need of an FAA DNH. Of the 200 and 100 array, where is Alt. 8?

A. Alt. 8 is located within the 100 megawatt deferred portion of the project.

Q. And in that exchange you were also asked about the ADLS application that will go to the FAA, and I believe you responded that it will be filed in April. Is that

application for the 200 array or 100 array?
A. It would be solely for the 200 megawatt array.
Q. In response to Chair Hanson's question with regard to if the FAA says there is not a need for an ADLS, you responded in a certain way.

What I'm asking, in your knowledge of how the FAA reviews it, can you elaborate on whether it's a question of need or it's a question of approval, just to provide the Commission with a better understanding of the FAA process?
A. Sure.

The FAA's review of the applications is on a site-by-site basis. You know, obviously there's approved technologies that are out there, but just because you're utilizing an approved technology doesn't necessarily mean you would receive an approval from the FAA for the use of the ADLS.

You know, we've worked really close with our consultants to put together what we see as a very solid application. And with proposed radar locations that provide ample coverage of the project. And, you know, we feel confident in the approval process.
Q. You also received a question from Chair Hanson on a South Dakota Game, Fish & Parks request. And you said that you're committed to comply with those requests.

Given that that's not part of your testimony, I was wondering if there was another witness that could elaborate on how we would comply with those requests?

A. Yes. I would direct that to Sarah Sappington.

Q. Thank you.

And then, lastly, in response to Commissioner Hanson's question with regard to the safe harbors, I recall your answer was the only difference is the hub heights. Is there also a megawatt difference between the safe harbors and the non-safe harbors?

A. Yes. Yes, there is. The non-safe harbors or primary turbines are 2.3 nameplate capacity. And the safe harbors are 2.1 nameplate capacity.

MR. MURPHY: Thank you. That's all my redirect.

MS. CREMER: Thank you. We will go to recross. But it is only as to Commission questions or redirect. So we would start with Mr. Swanson.

MR. SWANSON: Well, I do have a line of questions based off of what Staff counsel had asked. Are you saying that's out of bounds?

MS. CREMER: Normally, yes. It would only be to Commission questions and redirect. But hold on.

We're going to go to Chairman Hanson first. He has a question.

CHAIRMAN HANSON: Mr. Wilhelm, in redirect you

were just asked pertaining to someone who would be, paraphrasing, better versed perhaps to answering a question, and you said -- I believe you said it was Sarah; is that correct? Sarah Sappington?

THE WITNESS: Yes.

CHAIRMAN HANSON: In the order of -- well, I'll just ask it directly. Are you in a supervisory capacity to her?

THE WITNESS: No, I'm not.

CHAIRMAN HANSON: In the order of things, your prefiled testimony shows that you are the person, senior project manager. Do you not take a position of authority above her?

THE WITNESS: I do on a project level, yes. You know, she was a consultant that we worked with on the environmental side of things and she's a subject matter expert in the realm of where I felt the question was asked and I felt she could better address it.

CHAIRMAN HANSON: At this time. However, you are the person who has authority over that area.

THE WITNESS: Yeah. Ultimately.

CHAIRMAN HANSON: She doesn't have authority over you.

THE WITNESS: That would be correct.

CHAIRMAN HANSON: All right. Thank you.

COMMISSIONER FIEGEN: You know, I should have asked this before, but I have a clarifying question of what Commissioner Hanson asked earlier. And he asked the cost for ADLS per turbine, I thought. And did you give the amount for the entire turbine or just the lighting system per turbine?

THE WITNESS: That cost is associated with just the ADLS radar tower needed for the site to function with the ADLS technology.

COMMISSIONER FIEGEN: So that's per turbine?

THE WITNESS: No. That is per ADLS radar. So there's two of those proposed on this site based off of the size and spacial coverage needed.

COMMISSIONER FIEGEN: Thank you.

MS. CREMER: All right. Now, Mr. Swanson, it is your opportunity. And it would only be as to redirect and Commission questions.

MR. SWANSON: May I pose this question and you can rule on it?

Staff counsel had asked about participation agreements, and I did not understand the witness's response about having those would bring benefits to CRW. He indicated in the affirmative but didn't explain himself. I'm asking him to explain himself.

MS. CREMER: Let me ask you this: Is this going

to take us down some rabbit hole, or is this a one-question off?

MR. SWANSON: I have a total of three questions. The next question is, from that, after the project is sold to NSP who decides who gets a participation agreement or if one is withheld?

Is that Crowned Ridge, or is it NSP?

MR. MURPHY: I'm going to object. One, I'm hesitant to open up, you know, this door that will be hard to close with regard -- and, you know, it's my understanding it was redirect and Commissioner questions, and I purposely did not go down that road because I did not want to open that door.

MS. CREMER: So that would be my ruling on this matter. It is possible you could ask those questions of another witness. But we can't start going recrossing on everybody's everything. Those appear to be questions that could have been asked when you had your original cross.

MR. SWANSON: Staff counsel proceeded after me, and that raised the question.

MS. CREMER: And I understand that, but at this point I would not allow us to go down that path.

Ms. Christenson.

MS. CHRISTENSON: Thank you. I want to address

the ADLS lighting costs.

RECROSS-EXAMINATION

BY MS. CHRISTENSON:

Q. The one tower that will emit the beacon to alert the turbines is three-quarters of a million to a million dollars each; is that correct?

Would that be a correct statement?

A. That's correct to what I had stated earlier. And I'm happy to have somebody else on the team, you know, further justify that when they come up here, which would be Mark Thompson who is highly involved. If he needs to provide a correction, he can, but I stand behind that.

Q. Okay. So I'm trying to clarify that in my head. So I think the question Chairman Hanson was trying to get to is on the top of each turbine there's a light that's going to go off and on, and that cost for each turbine, what would that be, provided that you don't bring in a crane just for one turbine; you're doing a whole array?

A. That is a good question, and Mark Thompson would be best suited to answer that as far as the lights on top of the turbines.

Q. The cost question?

A. Yep. Yep.

Q. Okay. Thank you.

MS. CHRISTENSON: That's all I have.

MR. ROBISH: This is Al Robish. I have nothing.
MS. CREMER: Thank you.
Staff.
MS. REISS: Just briefly.

RECROSS-EXAMINATION

BY MS. REISS:

Q. In response to Commission questions and also on redirect, there was some discussion regarding requests to the FAA regarding ADLS use. Do you recall that?

A. Yes, I do.

Q. Okay. And you had indicated in your testimony that you were hopeful that it would be approved; correct?

A. Yes.

Q. Is it possible for the FAA to deny a request for use of ADLS?

A. I believe that is the correct terminology as far as a denial. We've seen it happen on other projects.

Q. Okay. And going back to some previous questions I had posed to you regarding whether Crowned Ridge II would utilize ADLS, I believe you indicated that Crowned Ridge Wind II committed to using this prior to commercial operation date; is that correct?

A. Yes. We're seeking approval and installing the ADLS system. Absolutely.

Q. Okay. And given that commitment, does Crowned Ridge

Wind II have a plan in place in the off chance the FAA would deny the request to use ADLS in this instance?
A. The default pivot there is to resume with the standard lighting as required by the FAA for safety reasons. And most rulings where an approval is not granted is because of potential safety hazards.
Q. Just to follow up on that, are you partially aware of a statute that was passed by the legislature in the 2019 session that addressed the use of ADLS systems?
A. Yes. I'm aware.
Q. And without giving a legal opinion, would Crowned Ridge Wind, II's default plan adequately comply with that statute?
A. I'd say that the necessary actions will be taken to ensure that an ADLS system would be operational by COD and that the system will be equipped. As to whether we are given the approval to operate all the turbines, some of the turbines with the ADLS technology, is dependent upon how the FAA rules.

So yeah. I would say that we are committed to equipping the site with ADLS technology needed to run the site with that technology.
Q. Can you today provide a commitment as to whether or not Crowned Ridge II would be willing to come back to the Commission if ADLS were denied by the FAA?

A. I'm sorry. I'm going to ask you to repeat that one more time.
Q. Perhaps I wasn't clear. So I'll just rephrase it instead of having the court reporter read it back.
Is Crowned Ridge Wind II willing to commit today to coming back before the Commission to obtain further direction or a waiver or some other type of decision by the Commission if the FAA were to deny Crowned Ridge II's request for an ADLS system on this project?
A. I would say it's possible that a commitment will be made today. I don't think I'm the right person to address that, and I would like to pass it to somebody else on our team to respond to, one of our other witnesses.
Q. Can you identify who that witness is?
A. Yes. That would be Daryl Hart.
Q. Thank you.
MS. REISS: Staff has nothing further at this time.
MS. CREMER: Thank you. Commission counsel, however, does have a question.
MR. DE HUECK: Good morning still. Adam de Hueck, Commission counsel. Just had a couple quick questions about ADLS real fast.
What are some of the concerns or safety notions

that the FAA may have where they would tell an Applicant not to use ADLS? Like what are those?

THE WITNESS: I'll speak on a very high level because this is definitely not my swim lane. But, you know, it could be proximity to an airport. It could be various elevations or poor line of sight in the general area. With the topography, not being able to confirm adequate coverage of the site. You know, things of that nature.

MR. DE HUECK: So they would just want the red lights on all the time in those situations possibly?

THE WITNESS: Yep. That is a possibility. There is also -- we've also seen cases where, you know, certain portions of the project are approved to use the technology. And then, you know, it could be a third of the turbines or two-thirds of the turbines.

MR. DE HUECK: Okay. And then second question real quick is these ADLS systems. If you get approval and you've got to throw them on, is that easy for you to purchase, or are they kind of limited in manufacturing and they're just not readily available on the market?

What are your thoughts on that?

THE WITNESS: Yep. So there's not a lot of vendors out there. You're very limited on where you can go, as far as what's an approved technology with that.

And what we've experienced is we've seen hurdles, you know, with the other pieces that come with it, other consultants who would supply the towers and everything associated with the ADLS.

It is a very limited market so, yeah, there is hurdles with limited suppliers.

MR. DE HUECK: And then my last question real quick, I'm going to assume this is a little over your head, but are you familiar with the FAA's requirements set forth for obstruction, marking, and lighting in Chapter 14 of FAA Advisory Circular 70-74, 60-1L, Obstruction, Marking and Lighting, dated December 4, 2015?

THE WITNESS: I'm somewhat familiar to it. To what capacity, I'll wait for the next question.

MR. DE HUECK: Okay. So are those provisions specific to the ADLS that we're all thinking of, the lights turn on when a plane is coming, or are those provisions -- do they also encapsulate just red light's on all the time?

I'm just wondering how clear our legislature was when they wrote that law. And I guess I need to look up those provisions myself, but do you know?

THE WITNESS: I don't know offhand. I'm happy to follow up with it. I don't want to answer it

incorrectly.

MR. MURPHY: To the extent helpful, and it doesn't have to be on the record, I can give you a brief overview.

Chapter 13 of the regulations are the requirement to have blinking lights for safety purposes. Chapter 14 is a voluntary option to have ADLS or something similar to dim or turn off those lights all together, and that's where the approval process is. I'm happy to supply those regulations if you'd like.

MR. DE HUECK: I can get them. Thank you. That's all I have.

MS. CREMER: Thank you.

Final redirect, Crowned Ridge?

MR. MURPHY: Nothing further.

MS. CREMER: Thank you, Mr. Wilhelm. You may step down.

(The witness is excused.)

MS. CREMER: So it's 5 to 12:00. I'm thinking, and others can think also, that if we go to about a 12:30 mark and then break from 12:30 to 1:30 to give your property guy a chance to get here. We will then, you know, go through until about 3:15. Take a break from 3:30 to 5:30. We have to conclude tonight at 5:30. But otherwise the rest of the week we'll go later.

Does anybody have a -- does that work?

Okay. Do you have somebody you can throw on here quickly?

MR. MURPHY: Yes. I'll call Daryl Hart.

(The oath is administered by the court reporter.)

DIRECT EXAMINATION

BY MR. MURPHY:

Q. Please state your name, business title, and company for the record.

A. Daryl Hart. I was the director of business development with NextEra Energy Resources and more recently with NextEra Energy Transmission.

Q. What is your role with Crowned Ridge Wind II?

A. I worked on the commercial aspects of the project, including the selling to Northern States Power Company, and a deferral of the 100 megawatts until it was supported by MISO in SPP studies.

Q. Please provide a short overview of your education and experience.

A. I've been employed by NextEra since 2007 in various roles including wind farm design, utility distribution project management, transmission, and renewable energy business development, including a number of wind farms.

Prior to joining NextEra, I spent 10 years as an officer in the United States Air Force. I received a

Bachelor of Science in electrical engineering from Worcester Polytechnic Institute, a master's of business administration from Auburn University Montgomery in 2003, and a master's of science and finance from Penn State University in 2015.

Q. Did you file Prefiled Direct Testimony and exhibits on July 9, 2019, A6, A6-1, and A6-2 and Prefiled Supplemental Testimony on September 20, 2019, A13, A13-1 through A13-3?

A. Yes.

Q. Do you have any changes or corrections to the prefiled testimony and exhibits?

A. No, I do not.

Q. Please provide a short overview of your prefiled testimony.

A. Thank you.

Crowned Ridge Wind II is a project that will be transferred to Northern States Power Company prior to the commercial operations date. As explained in my Supplemental Testimony, Crowned Ridge Wind II intends to defer 100 megawatts until such time as MISO and SPP support its construction.

At this time the next round of MISO and SPP studies are expected to be completed by April 13, 2020, at which time Crowned Ridge Wind II will decide whether to move

forward with construction of the deferred 100 megawatts or to further defer the construction to a later date when future MISO and SPP studies support its construction, with the understanding that Crowned Ridge Wind II will need to construct within four years of approval or seek an extension from this Commission to defer construction beyond four years.

Q. Thank you.

MR. MURPHY: I offer this witness for cross-examination.

MS. CREMER: Thank you.

Mr. Swanson.

CROSS-EXAMINATION

BY MR. SWANSON:

Q. Mr. Hart, as I look at Exhibit A6, I understand the plan is to have Crowned Ridge Wind II sold and transferred to NSP. Is that correct according to page 3, line 6 of your testimony?

A. That's correct.

Q. After that is accomplished, what then -- what managerial duties would you or other NewEra -- or NextEra officers or employees have as to Crowned Ridge Wind II?

A. There are two questions here. My personal responsibilities will be none. And the managers of Crowned Ridge Wind II as of today who work for NextEra

Energy Resources will have no responsibilities once the project's been transferred.
Q. All right. So if circumstances arise because of shadow flicker or noise that a participation agreement might be in order to deal with nonparticipants, am I correct in assuming that it would be NSP who would make that decision?
A. That would be NSP's decision.
Q. And your company would have no play in it at all.
A. That is correct, sir.
Q. And that will happen at the time of sale, which is predicted in the near future, I gather.
A. The fourth quarter of 2020.
MR. SWANSON: Thank you.
MS. CREMER: Ms. Christenson.
MS. CHRISTENSON: Thank you.

CROSS-EXAMINATION

BY MS. CHRISTENSON:
Q. Mr. Hart, hello.
A. Hello.
Q. I would like you to refer to Exhibit AC-17, which is Applicant's Response to Intervenors' First Data Request.
A. I'm sorry. What was the number again? And I'm going to need some time to find it.
Q. Yep. AC-17, Applicant's response to Intervenor's

First Data Request.
A. And I'm assuming I'm the respondent on that one?
Q. Yes.
A. This one goes up to 10. Was AC-17 your question?
Q. AC-17 is the exhibit number.
A. And what was the question number? I'm sorry.
Q. 5.
A. I'm not sure if I have the right --
Q. No. 5.
A. Thank you.
Q. Are you there? No?
MS. REISS: Do you want to read the beginning just so he knows he's on the right one? Just the first couple of words.
Q. "At the public input meeting, August 26." Got it?
A. Thank you. For the delay.
Q. No problem. I can just read the whole question too if you'd like me to.
A. I have it here.
Q. Okay. You were asked how Crowned Ridge Wind II would fund this project if permitted. Did I read that correctly, that that's your interpretation of the question?
A. Yes, ma'am.
Q. Your answer was, "Crowned Ridge Wind II will be

transferred to Northern States Power Company who will own the project after the sale transaction is completed."

Could you explain how the project being transferred to NSP will fund the project?

A. Yes, ma'am.

NSP is paying milestones payments per the purchase and sales agreement tied to the transfer, and those payments are utilized for the purchase of the turbines as well as the construction of the site.

Q. Thank you.

The following question in that same Data Request, No. 6, Intervenors asked, "Please provide the annual balance sheet, annual profit and loss statement for the Applicant for the last three years."

Do you understand that question as I read it? Is that correct?

A. Yes, ma'am.

Q. Okay. Your answer, "Crowned Ridge Wind II does not have an annual balance sheet, annual profit and loss statement for the last three years and, therefore, there are no documents responsive to this request."

Did I read that correctly?

A. Yes, ma'am.

Q. So your testimony would be there are no funds or business transactions for the company, Crowned Ridge Wind

II, LLC?
A. There are no funds assigned to Crowned Ridge Wind II, LLC.
Q. Would you please turn to Exhibit AC-15 and find the fourth page, please.
A. Sorry. We'll need a second.
Q. Yeah. Absolutely. I believe that's the Grant County application.
That page right there. Could you describe that document for the Commission, please.
A. It looks like a check.
Q. Can you tell me who issued that check?
A. I seem to be corrected that there's a Crowned Ridge Wind II, LLC check.
Q. So okay. Thank you. I guess that ends that.
So that is a check issued by Crowned Ridge Wind II, LLC to Grant County on August 13 of 2018. That would be within the last three years; is that correct?
A. Yes, ma'am.
Q. Thank you.
Applicant's Exhibit A6 is your direct testimony. On page 3, lines 5 through 7, it reads, "Crowned Ridge II will be transferred to NSP prior to the commercial operations date. Crowned Ridge II will own, operate, and maintain the project after the transfer to NSP as a

subsidiary of NSP."

I have to admit that confuses me. Could you explain to me how ownership goes to Northern States Power and once it's transferred to Northern States Power it goes back to Crowned Ridge II?

A. I think there's a confusion here in your question. Sorry. Let me clarify.

Q. Yeah. I'm really confused.

A. Yeah. Let me clarify.

So right now the entity that's the Applicant here who will own and operate the assets within the wind farm is Crowned Ridge Wind II, LLC. That entity will be sold to NSP. So that is the transfer of ownership. There's no additional transfer of ownership beyond that per the purchase and sales agreement.

Q. Okay. So Crowned Ridge Wind II will be a subsidiary of NSP, according to your answer.

A. That's correct.

Q. But retains no assets. NSP will retain the assets.

A. Good question.

The assets within the transfer, turbines, whatnot, that will be transferred over to NSP will be transferred as part of Crowned Ridge Wind. So they will be part of that entity, of which the entire entity is owned by as an affiliate of or wholly owned by NSP.

Q. I'll go with that.
A. Thank you.
Q. Applicant's Exhibit A13 is your Supplemental Testimony.
A. I'll wait for the question.
Q. Okay. On page 4, line 8, you say, "Crowned Ridge II will now use LNTE blades on all turbines."
Will those be attachments or actual blades that are manufactured with low noise trailing edges already?
A. Those will be attachments.
Q. Thank you.
On that same exhibit, your Supplemental Testimony at the bottom of page 4, beginning at line 20, you talk about curtailing certain turbines to give two homes relief from flicker to 30 hours annually.
How many hours each day would those homes be subject to flicker?
A. I don't have the answer to that. I understand that -- I understand that several turbines will be curtailed. And I don't know the exact number. I would have to defer that to our sound and flicker expert.
So that these two receptors fall under the limit but I don't know the amount of hours or the -- I don't know the amount of hours if they were not curtailed.
Q. And you don't know the hours -- amount of hours

daily. Would they ever exceed 30 minutes per day?
A. I would have to defer that question. I apologize.
Q. And who would I ask that to?
A. Jay Haley.
Q. Haley? Okay. Thank you.
Now that we've established that you are aware of these two families -- and according to the receptor numbers you've provided, one family is a participant and one family is not a participant. Now the family that has the designation as nonparticipator, they have not signed any agreement with Crowned Ridge Wind at all; is that correct?
A. That is my understanding.
Q. Okay. Has Crowned Ridge Wind or NextEra or any affiliate of your company reached out to that nonparticipating family to discuss these overage of the flicker effect?
A. I don't know. I don't know the answer to that.
Q. And who would know that one?
A. I believe that would be Mr. Wilhelm.
Q. Okay.
MS. CHRISTENSON: You get back here.
Q. In this same Exhibit No. 17 -- oh, sorry. Exhibit AC-9, which is a Data Request from Intervenors.
MS. CHRISTENSON: Mr. Murphy, thank you.

(Mr. Murphy provides document to the witness.)
A. This is marked.
Q. Awesome. I apologize for not having one handy for you.
A. That's fine.
Q. Okay. No. 17.
A. This is AC-10?
Q. AC-9.
A. Oh, AC-9. Thank you.
Q. You state that, "NSP exercised its downsize rights on August 16, 2019"; is that correct?
A. That is correct.
Q. And you go on to say, "The PSA also requires your two parties to work together to determine other mutually agreeable opportunities, including" -- it goes on to say, "including MISO Q connection J722."
My question is would the repowering of a project instead of building a new project be more cost-effective and mutually beneficial to both parties versus building a brand new 100 megawatt project?
A. I'm not following your question as in -- and I want to restate this, that repowering a project would be more cost-effective than building a new project?
Q. Yes. That's my question. Thank you.
A. That's a fairly broad question, and I can't talk to

the capital cost or the cost for repowering.
Q. Okay. If I ask this, perhaps this will help us both: If approved by the Minnesota PUC, would repowering the Mower project at 200 megawatts fulfill your agreement with NSP to find a mutually agreeable opportunity versus the 200 megawatts in Crowned Ridge I and II being built?
A. I can't speak to the requirements of NSP or the status of the Mower project at this time.
Q. In your response to Intervenors' question No. 18 of this same document, you indicate the company has done a number of studies in reference to, and I'll read from this -- from the document.
"Section 5.2, Effects Easement. Effects listed are audio, visual, view, light, flicker, noise, shadow, vibration, air turbulence, wake, electromagnetic, electrical, and radiofrequency interference, and any other effects attributable to the wind farm or activity."
What studies has the company completed in the areas of vibration, air turbulence, and other effects?
A. I'll have to defer that question to both Ms. Sarah Sappington, as well as Jay Haley, as to the specifics of the studies.
Q. Thank you.
So you wouldn't know if the company has completed

any study specifically concerning the lower threshold of noise known as infrasound or low frequency noise?
A. I do not. I would have to defer that.
Q. Okay. Do you know if the company would intend to initiate any studies in the near future regarding infrasound, low frequency noise, or its effects?
A. I will have to defer that one as well.
Q. Okay. Exhibit A6-2, which is Applicant's exhibit, it's a tax table supplied by you.
A. Thank you.
Q. You have that in front of you.
Does this tax table reflect tax estimates to be presented as a 300 megawatt project?
A. That's 300 megawatts.
Q. Is there a 200 megawatt version of those?
A. I do not have that, but I can say that the -- that the amounts of the tax revenues are reduced by one-third, if you build 200 -- once you defer and then build the 100, it will be brought back up to these amounts.
Q. Okay. So pretty much one-third. It doesn't matter like the area -- maybe the southeastern portion near Bemis, you don't know if that would be a better producer of wind versus more tax money? That doesn't matter since we're taxed on nameplate?
A. You're taxed on a combination of nameplate and on

generation.
Q. Okay. So it could vary but slightly?
A. Correct. Correct.
Q. In the Applicant's response to Staff's First Data Request, which can be found in Staff's Exhibit S1, pdf page 61 -- there should be question --
A. No page numbers on this. Do you have the question number?
Q. 38.
A. Okay. I have it. Thank you.
Q. Included in this paragraph, the paragraph immediately preceding the table, I'll read it for the record. You, the Applicant, "would seek qualified labor for construction, operation, and maintenance. Crowned Ridge Wind II will conduct local job fairs, plural, based on the securing of local labor for the construction of Crowned Ridge Wind. The assessment on the use of local labor includes the likely hiring of 10 local construction workers."

In your application to the PUC how many construction workers did you estimate this project would employ?
A. Let me clarify the question. So the question is just basically how many do we expect to employ during the construction phase for 300 megawatts?
Q. Yes. I guess maybe I can ask it this way: In your

application to the PUC did you estimate Crowned Ridge Wind II would hire 250 construction workers?
A. I would have to double-check the application, but I do -- but the response is 250.
Q. Thank you.
So 10 of those 250 would be local construction people, according to your answer? Or according to your data response?
A. At a minimum.
Q. Okay. And then Tyler passed something on for you.
Oh, maybe not. I thought it was about the blade disposal, but maybe he passed that on to Mr. Thompson.
Yeah. He raised his hand.
A. That would be Mr. Thompson.
MS. CHRISTENSON: Okay. That's all I have for you. Thank you.
MS. CREMER: Mr. Robish.
MR. ROBISH: Al Robish. I have no questions for you.
MS. CREMER: Thank you.
Staff.
MS. REISS: Yes. I have just a couple of questions for you.

CROSS-EXAMINATION

BY MS. REISS:

Q. And I will admit following the testimony regarding the business transaction regarding Crowned Ridge Wind II I'm slightly confused as well. So I have a couple of questions along that line.

So if I understand your testimony correctly, the entity Crowned Ridge Wind II will be sold entirely to NSP? Is that accurate?

A. That is accurate.

Q. Okay. Does that then include all 300 plus megawatts potential?

A. That is correct.

Q. Okay. So following that up, would NextEra retain any oversight or other interest in that project at that time?

A. At the time of the closure?

Q. Yeah. After the closure. I'm sorry.

A. There is no additional interest by NextEra.

Q. Okay. So am I understanding it correctly that Northern States Power, after the transfer is concluded, will make all decisions regarding Crowned Ridge Wind II?

A. That is correct.

Q. And just to clarify, is the proposed transfer of Crowned Ridge Wind II to Northern States Power, will that

occur after construction of the initial 200 megawatts or after construction of the 100 in addition?
A. The current agreement is after the construction of the 200 megawatts.
Q. Okay. Do you have any knowledge of who would construct the 100 megawatts?
A. I do not. It would be -- it would be under NSP. And if they would be interested in having NextEra build it, then that would be a further agreement. But it would be NSP.
Q. Okay. And just for some clarification -- forgive me. I forget what the data request number was, but I believe Ms. Christenson had pointed you to a data request regarding the construction of the 100 megawatts and there was -- as a part of the answer, there was discussion about coordination between the parties as to the construction of the 100 megawatts?
Does that ring a bell?
A. Yes, it does.
Q. Can you explain who the parties would be?
A. That would be between NSP and Crowned Ridge Wind II prior to the sale. Prior to the close of the sale.
Q. Okay. So just to verify, NextEra would have no part in those discussions after the sale?
A. That is correct.

Q. Okay.

MS. REISS: Staff has nothing further at this time.

MS. CREMER: Thank you.

We'll start with Commissioner questions. It's about 12:30.

All right. Commissioner Nelson, you are up first, but you had none.

COMMISSIONER NELSON: No questions.

MS. CREMER: All right. Commissioner Fiegen.

COMMISSIONER FIEGEN: So this 100 megawatts certainly has confused us a lot because the application was 300, went down to 200, and now we're looking at this 100 megawatts. And you certainly state that the MISO queue -- I do not understand why the SPP would be studying this because this isn't part of the SPP queue unless there's a Seams issue and it's going to be sold on the market.

I don't understand that. Can you help?

THE WITNESS: So part of the second phase of the studies, what's called DPP2, definitive planning phase 2, MISO reaches out to SPP for any impacts to their system because there are points within the MISO and SPP systems where they interchange.

And, to our surprise, when DPP2 came out for a

J721, which is the queue position that was in question, we were surprised by the increase in cost that would have been applied to that queue position, which would have been well over $100 million.

COMMISSIONER FIEGEN: Okay. So that helps me understand. Because certainly SPP has a lot of wind, and we're certainly looking at the cost to the entire footprint of additional wind and how that is changing everything.

So thank you.

MS. CREMER: Chairman Hanson.

CHAIRMAN HANSON: Just have two easy peasy ones. It's piggybacking a bit on Commissioner Fiegen's just now on the interconnection queue that you also referred to I believe it's J722 and said that preliminary results would be available in the first quarter.

We're early in the first quarter at this juncture, not quite halfway there, and I'm curious whether you have any preliminary information on the cost of that.

THE WITNESS: We received a draft of what DPP2 results would be, and it looks like it's $28 million just for the MISO portion. What MISO left off were the estimates for the SPP affected systems which, if you go to the MISO site, state that previous results or actually

the DPP results were delayed previously because of the SPP affected systems.

We are still waiting by the end of March or early April for the definitive results.

CHAIRMAN HANSON: Thank you.

And the last one is just I'm assuming a typographical error, but it was confusing to me on page 4, line 8.

It states, "Now CRW2 will now use LNTE blades on all of the turbines instead only the 34 turbines indicated in the application." Is there a word "of" that should be in there somewhere between there, or is there --

THE WITNESS: Oh, that's correct. Yeah.

CHAIRMAN HANSON: So it's qualifying by "instead of" should be in there?

THE WITNESS: How would that sentence read then? I'm sorry.

CHAIRMAN HANSON: Well, "instead of" only the 34 turbines indicated --

THE WITNESS: Oh. It should be "instead of the 34." I see how the sentence changed without the "of."

CHAIRMAN HANSON: That's all I have. Thanks a lot.

MS. CREMER: Thank you.

Redirect?

MR. MURPHY: No redirect.

MS. CREMER: All right. Thank you for your testimony. You may step down.

Why don't we go to lunch at this point. Let's everyone try to be back at 1:30. It might be hard to get food and be back here by then, but let's try. And we are in recess until then.

Thank you.

(A lunch recess is taken.)

MS. CREMER: I will call the hearing back to order.

Crowned Ridge.

MR. SCHUMACHER: Thank you. Crowned Ridge would call Michael MaRous.

(The oath is administered by the court reporter.)

DIRECT EXAMINATION

BY MR. SCHUMACHER:

Q. Please state your name, business title, and company for the record.

A. Michael S. MaRous. I'm president of MaRous & Co., a corporation that specializes in real estate valuation and real estate consulting.

Q. What is your role with regard to the Crowned Ridge Wind II project?

A. I was and my company was engaged to review the proposed project and particularly to look at impacts in regard to property values of proximate properties.
Q. Please provide a short overview of your education and experience.
A. I graduated from the University of Illinois Champaign-Urbana in the School of Finance with a specialization in urban land economics, which is really real estate. I immediately began working for a real estate appraisal and consulting firm and then have headed in that path my entire career.

I founded MaRous & Co. in 1980, which we are a consulting valuation firm of about six professionals. I hold the MAI designation, have since 1980. I've served on various leadership positions with the Appraisal Institute, president of the Chicago Chapter, contributed to the appraisal of real estate, been on the Appraisal Journal Board, lectured, taught.

I was invited to the membership of the Counselors of Real Estate. I'm just coming off of being on the national board for the last seven years. But basically have been involved in real estate valuation, particularly in the Midwest, for 25 or 30 other states and I've appraised $15 billion of a wide variety of property, including ag land, large estates, large industrial uses,

large commercial uses, large residential uses, to name a few.
Q. Are you licensed to perform appraisals in the State of South Dakota?
A. I am. I hold the general certified, which is the highest appraisal license in the State of South Dakota.
Q. Do you have experience specific to South Dakota wind projects?
A. I have. I believe Crowned Ridge II is either the seventh or eighth wind project that I've studied in the last few years, primarily in eastern and central South Dakota.
Q. Have you previously testified before the South Dakota Public Utilities Commission?
A. I believe I have on at least four occasions, including the Dakota Range projects, Crocker, Prevailing Winds, and Deuel.
Q. Did you file Prefiled Supplemental Testimony and exhibits on September 20, 2019, that are marked as A16 and A16-1 and Prefiled Rebuttal Testimony on January 8, 2020, that is marked as A22?
A. I did.
Q. Do you have any changes or corrections to your prefiled testimony and exhibits?
A. I found on the bottom of one of the maps in the

report a typographical error, which I've changed in regard to the roads traversing the subject footprint. That does not -- that was a clerical error and has nothing to do with the impact to the report.

Q. Please provide a short overview of your prefiled testimony.

A. Basically I reviewed the proposed project, the impacts of the project, the heights, the size of the project, the footprint area, the economics of the project, including the various annual payments being made to the various taxing bodies and also to the landowners.

I looked and I came out and inspected the footprint all throughout, you know, looking at some of the small towns. Familiar already with Watertown, familiar with Deuel, familiar with a couple of the lakes and some of the issues there. Looked at some of the sales of agricultural properties and some of the residential properties and then basically did an analysis of sales transactions, demographic issues, and looked in concern with the sensitivity that seems to come up with these, such as shadow flicker, such as decommissioning, such as tip height, such as noise, just so I understood, you know, the particulars of the project.

I also took under consideration my experience with driving all over looking at, you know, large acreages and

wind projects throughout South Dakota and take in the experience and some of the issues that have come up with those and then put it together into a report providing a matched-pair analysis, looking at peer-reviewed articles, looking at the economic impacts to the properties, took into consideration various professionals that -- you know, really throughout the Midwest that I have discussed with these issues, and put together a 100-plus-page report specific to the proposed development.

Q. Have you had the opportunity to review the Supplemental Testimony of David Lawrence dated January 23, 2020?

A. I have.

Q. Is there anything in his Supplemental Testimony that causes you to change your position or provide further comment?

A. That's an interesting question.

I think Mr. Lawrence did a very good job. Similar to what we did, I think he probed a little bit more with some of the sales transactions. And I think his analysis is very well done, in particular to South Dakota, but essentially came to the conclusion that there was no indication of negative impact on property values, consistent with my conclusions.

He obviously was looking -- I think he calls them

IDSD2, which is one of the transactions I think the Richter family that I paid close attention to. And when I was out, I had looked -- driven down the gravel road, looked at the 1,500-square-foot house. I didn't knock on the door and go into it. And also looked at sales transactions and, you know, looked at some of the comments he made.

But when it's all well and done, I think, you know, one of his conclusions is there's certain people that don't like turbines. I agree with him. I mean, certain people don't like gravel roads. Certain people don't like lack of infrastructure. There's a lot of opinions with any type of real estate.

I think he still when he was done came to the conclusion that there was no indication of negative impact, which is concurrent with my opinions.

MR. SCHUMACHER: Thank you. That concludes direct examination of this witness.

MS. CREMER: Thank you.

Mr. Swanson.

CROSS-EXAMINATION

BY MR. SWANSON:

Q. MaRous; is that correct?

A. I've been called worse, but it's MaRous.

Q. MaRous. All right.

Are there any externalities about a wind farm that would tend to impact value, in your opinion, more than some other feature or character?

A. I think it kind of goes to controls and properly legislated or designed having to do with concern with shadow flicker, having to do with sound, having to do with decommissioning.

And my experience is the South Dakota PUC and the local counties have really done a good job with that, and they've learned from, you know, older experiences and some bad experiences with other states.

Obviously, proximity can be an issue. You know, there's some concerns with aerial spraying. But, again, while that's efficient, the aerial sprayers -- and, again, I'm not an aerial sprayer, but they do better with lower wind speeds. Again, it's a matter of coordination with the company. But the well run companies can turn off these blades immediately, and they can work with the community.

I think there's always a concern as to setbacks. I think there's also a concern with density, which the world is changing in the wind industry because the originals going back were a half to one megawatt. And for a project this size you might need 3 to 400 turbines and you had view of a lot of turbines. Now that they can

be spread out more, that issue to me has probably gone away.

But I think it's really kind of a concern of, you know, properly laying them out.

Q. Well, I'm not sure that aerial spraying would have much of an impact on a residential value, but would shadow flicker, whether the home receives shadow flicker, would that have an impact?

A. I think the norm today is 30 hours a year, which when we kind of think about how we live, are you even going to be in your house or anybody going to be in the house the majority? Or are you going to be in that room, or are there other measures that can block that out? And I think that 30-hour limit seems to be well done.

Obviously, if you had 100 hours and it was something that was constant, I would think that would be a negative. But when you get it to a de minimus situation, you know, if we think of 30 hours, 30 hours of bad weather, 30 hours of rain, 30 hours of high wind during a year, it's really pretty minimal.

Q. I looked through your Exhibit 16-1 I think it is. MS1, the market appraisal from the market analysis that you did.

A. Yes, sir.

Q. I didn't happen to notice where you had actually

made note of whether a home that you are studying actually was within shadow flicker or elevated noise levels.

A. My understanding is due to the requirements of basically whether it be 45 dBA or 50 dBA. And the shadow flicker of 30 hours per year, that's given. So those criteria are met before the project can be developed or to be adjusted so they meet that criteria.

Q. So your opinion is a house that receives 30 hours of shadow flicker would have no difference in value as compared to one that didn't receive any?

A. That's my opinion, yes.

Q. And, likewise, with noise, a house that would receive 50 dBA and one that is under 40, for example, that makes no difference?

A. To me that's really the question of a noise expert. Obviously, at some level volume of noise is a problem. But, you know, being out in these footprints and standing on the side of a gravel road, you know, when a Ford 150 goes by at 30 miles an hour I think that dBA might be 60, 70. So there's natural noise in these areas already because of the wind and the use of the property.

But I think there's a sensitivity and there's an issue with noise, and my understanding, that's going to be met in this project.

Q. Are you involved in actually retailing or marketing homes that are within the footprint of a wind farm?
A. No. I am a licensed broker in the State of Illinois, but my business is real estate valuation and studying and analyzing impacts. So I am not a broker that's active, selling these properties.
MR. SWANSON: All right. Thank you.
MS. CREMER: Ms. Christenson.
MS. CHRISTENSON: Thank you.

CROSS-EXAMINATION

BY MS. CHRISTENSON:

Q. I'm looking at your Supplemental Testimony. And you talk about the Richter property, Greg Richter. Let me know when you're --
A. Yes.
Q. Okay. On line 16 of page 5 you say, "I confirmed with the broker that a buyer withdrew their offer with the reason of the proposed wind farm. However, because of the high price for the size of the home, the data does not necessarily support that the proposed wind farm is the sole reason that the property was not sold."
Those two sentences seem to conflict each other.
A. Not at all.
Q. If you confirmed with the broker the reason was the wind farm, how does that not mean that the reason they

withdrew was the wind farm? I don't understand where you get to your second conclusion.

A. So if you look at the contract, the contract had various contingencies in it, including conditional issues, including an appraisal. So if the property didn't appraise out, which happens all the time, then the buyer could withdraw.

There were conditional issues with the roof. The property was on a gravel road. The buyer can withdraw for a variety of reasons. The fact and the comment on the potential of a turbine 2,000 feet away was an issue, but that doesn't mean there were other issues that were specifically in the contract.

Q. However, the broker did not express any other issues with the property. They only expressed the withdrawal because of a wind turbine; is that correct?

A. Well, that's the question I asked. I was able to read the other potential issues that were in the specific contract for the Richter house.

Q. How much does a bare acre of land near the Richter home sell for per acre?

A. So is that with a 500-acre farm, or is that for a farmette?

Q. Just a bare -- a bare land acre. Any -- in your research did you look at -- apparently you did because

you talk about property value.
A. Sure. And the range can go for land that's part of a larger agricultural parcel that's not productive -- let's say it's got a Dakota pothole on it, it's a couple acres, it doesn't have road frontage, you know, it's really only good for grazing, may be 800 to 2,500 per acre.

A piece of land that maybe is part of a 2 or 3 acre farmette could be in the 10, $15,000 an acre range on a small piece. So that's why I was kind of qualifying your question.
Q. Okay. Thank you.

So in Codington County if you wanted to build an acreage out near Mr. Richter, you would have to purchase 35 acres of land. Would that be correct, in your research?
A. Well, that's another question because Mr. Richter did it on two, two and a half acres. Depending what you did you could have a 35-acre minimum, but the Richter piece and some of these other pieces are done on much smaller parcels and I'm not sure if they need zoning variances or how they do it where they split off from a larger farm.

But there's all kinds of examples on smaller acreage pieces.

Q. But if you wanted to go purchase -- if you wanted to build a new home in Codington County on a rural residential property, an acreage, we'll call it, you would need a minimum of 35 acres. You couldn't just purchase two and a half acres of bare land to build a home; correct?

A. It depends on the situation and the local ordinance in place.

Yes, you could build on 35. But, again, there's all kinds of indications of these rural properties being on 2-to-5-acre plots.

Q. Okay. So you're not familiar with the Codington County ordinance?

A. No. I'm providing an answer based on examples that are in the area. I think the Richters maybe paid $500 for their land, if I recall, in 2005. You know, it depends on the situation, the particular area, the interpretation of the zoning ordinance. But, yes, in certain areas you have to have 35 acres.

Q. Thank you.

On Mr. Richter's property what would be the value of the pole building and the garage? You talked about $2.05 per square foot for the home. So you're not giving value to any other pieces of the property? Am I wrong about that?

Let me look. $205.62 per square foot. So you really only put a value on the home, nothing else on the property?
A. That's not correct.
Q. It's not. Okay. Can you explain that to me then?
A. Sure. As an appraiser when you do a measurement you go above grade, heated and cooled, as the house size. And if you're just looking at comparables -- so taking his approximate 1,500-square-foot house above grade divided by the asking price that was equivalent to $205 per foot, but that takes into consideration the garage and the pole building and the driveway and it takes into consideration the land. That's just a unit of measurement.
Q. So earlier you spoke about there are people who have an aversion to turbines. I don't remember the word you used, but there are people who would wish not to live by turbines; correct? You stated that earlier?
A. What I stated is they wouldn't want to live on gravel roads and they wouldn't want to live sometimes in a more rural location not proximate to services or schools or medical. It's just -- or some don't like a two-story house. Some people don't like a one-story house. It's just personal preference.
Q. So speaking specifically about turbines, that would

possibly narrow the buyer pool for a rural residential property if turbines were placed near their home?
A. It might actually expand it. And it might reduce it too. Again, like anything else, if you have a property for sale and 10 people look at it, not all 10 are generally going to want to buy it, for a variety of reasons. Maybe only one or two do or none of them do. So there's preferences the people have that are important to them.
Q. Okay. Earlier also you said -- when you were talking about aerial spraying you said depending on the company -- I think you called it the company -- they could turn off turbines immediately.
A. That's what I said, yes.
Q. Are you aware of any -- any time that has happened with a wind project where a farmer calls and says, hey, I want to do some spraying; can you turn off Turbine 34?
A. Sure. It's my understanding it's done quite frequently. But it's kind of a scheduled -- again, it's a mutual scheduled event based on their needs of both sides and also the projections of a velocity of wind. And it's also based on a set time, whether it be a half-hour to an hour or two hours on a certain day, yes.
Q. Okay. And then you talked about a Ford going by at 70 miles an hour or some speed. You mentioned noise.

A. I think I said 35 miles an hour on a gravel road and a Ford 150 with a dBA that might have been 70.
Q. Okay. And that would probably last a few seconds to maybe a minute, and then that would be the end of that; right?
A. For that one particular truck, sure.
Q. Uh-huh.
A. Yes. But you could have many trucks go by in a day, correct.
Q. Okay.

MS. CHRISTENSON: That's all I have. Thank you.

THE WITNESS: You're welcome.

MS. CREMER: Thank you.

Mr. Robish.

MR. ROBISH: Yes. Al Robish talking.

CROSS-EXAMINATION

BY MR. ROBISH:

Q. Has anyone requested to buy property in a wind turbine project?
A. Has anyone requested to buy property.
Q. In a turbine project, specifically wanted to buy inside of a turbine project.
A. Are you talking ag owners? There's people chasing land inside wind projects throughout the U.S. all the time. So that answer is yes.

I think if you're -- I assume you may also be discussing rural residential. Yes, there's properties that are sold within footprints of wind farms.

Q. Okay. Looking at property for sale but not -- just requesting to be in a wind project for any number of reasons, like the residential part. I realize the ag might want to do that because they would hopefully get in on it maybe to have one.

A. That's an interesting question. So it's like somebody that wants to be on a golf course or be on a lake. I think it's more proximity to the services, the paved roads, that kind of drives the location.

But, believe it or not, even though there seems to be some feeling of adversity here, some people really like looking at them. So I have heard people that do seek them out and want them as a view amenity. But, again, that's personal choice.

Q. You've heard of that. But did they personally ask you?

A. No. I'm not a broker.

Q. Okay.

A. I've heard their testimony in hearings where they have said that. But I'm just answering your question.

Q. Okay.

When a property is listed is it a requirement to

disclose a future wind project?
A. That was a major point of Mr. Lawrence's direct testimony in various reports because I think the Richter -- and I think some of the others that he studied, generally they weren't disclosed. And then he sent it to the State, and I don't think he got a clear answer on that so I would probably defer that to legal counsel.

I think in my personal -- in my experience, and I've been an appraiser for a long time and a broker also for a long time, I think if you feel that there's a negative influence, you're bound ethically to disclose it. But I'm not really getting into the moral and legal aspect of it because it seems to be an issue that he brought up and found some significant inconsistency.
Q. So that later -- one wasn't disclosed at first but later it was disclosed and did that change something then? Is that what it was? That's what I thought you said.
A. No. And in looking at the comparables that Mr. Lawrence used, he found inconsistency in the Richter matter. It wasn't disclosed when the property was initially put on the market. At some point I think it might have been listed by a second broker. A decision was made to put that on the disclosure.

Q. Okay. Thank you.

In your research have you found anyone having a problem getting or keeping insurance in a wind project on their -- like a residential house or --

A. I heard that for the first time a few months ago in Iowa as to an insurance broker. And then I did summon further investigation, and it's like with any other liability but because of the issue of ice throw or, you know, some concern about fire, some concern about blades coming off, with the setbacks today I'm not aware of the issue.

Again, I'm not an insurance underwriter, but we look at these issues and risk management, and I haven't seen anything conclusive with that.

Q. Okay. Thank you.

Have you discussed insurance issues with anyone regarding living in a wind project?

A. Generally speaking, it hasn't been anything that has been a tangible factor that I could evaluate. So the answer is I haven't seen any conclusive evidence.

Q. What is your registered name at the Secretary of State?

A. It's just Michael S. MaRous.

Q. Okay.

MR. ROBISH: Okay. Thank you. That's all I

have.

MS. CREMER: Thank you.

Staff.

CROSS-EXAMINATION

BY MS. EDWARDS:

Q. Thank you, Mr. MaRous. You'll find I become more brief every time you see me.

You stated earlier that after you reviewed Mr. Lawrence's Supplemental Testimony your conclusion was there was no negative impact. Is that a correct statement?

A. Yes.

Q. When you say "no negative impact" do you mean no negative impact to the Richter property, or your study as a whole didn't change?

A. My study as a whole didn't change. Obviously, there's allegations -- and I'm not a lawyer. Mr. Richter is making allegations, and I have not done a specific study on his house.

Q. Sure.

A. But I've read the allegations. I had previously looked into the listing history. I've read what Mr. Lawrence has done. I looked at the property. I did talk to the broker.

Q. Sure. Thank you. I just wanted to make sure I

understood what that statement was attached to.

Moving on to decommissioning, you said there was some concern with decommissioning related to value. What's that concern, in your experience?

A. Well, that I think with some of the earlier projects that were done in any of the wind projects where there wasn't, let's say, the rules in place to do proper decommissioning, which left people in the footprint and the public bodies with concern of potential financial risk, I think with what's moved forward where Staff and the PUCs have figured out, you know, whether it's by guarantees, it's by bonds, however they do it -- and I'm not going to provide that -- that they figure out how deep they cut the foundations and, you know, what they do to remove the project if it is terminated.

Q. So it would be your opinion then that as long as the local residents had confidence in our process, there would be no effect?

A. Absolutely agreed.

Q. Thank you.

In your statement about noise -- I think you said volume and noise is a problem at a certain level. So is it your testimony or opinion that if the permit is appropriately conditioned, there would be no impact due to noise?

A. Correct.
Q. Impact. Property value impact.
A. Correct.
MS. EDWARDS: I have no further questions. Thank you.
MS. CREMER: Commissioner Fiegen.
COMMISSIONER FIEGEN: I was going to have no questions for you, and then all the sudden you answered a couple of questions so now I need to have you clarify those.
One of them was about agriculture and farmers that need to spray. Did you state -- can you -- I just need to understand what you stated, that a farmer could call the project operator and say I need to do aerial spraying, we think the wind -- or I didn't quite understand that.
THE WITNESS: So, again, I'm not an ag expert. I'm an appraiser. But my experience is if there's application provided -- one way is I call the Hagie unit, which is surface, which is more efficient, which goes down the rows, which seems to be the new way of doing it. However, if you've got a lot of terrain, it becomes more difficult.
The other is aerial application. Again, if it makes economic sense, then usually the sprayers don't

want to go out in high wind conditions. So let's say it's a 3-to-5-mile-an-hour wind. It's the same time that many times the wind farms may decide it's not big enough wind, and they're going to shut down anyway.

So it's a matter of some type of agreement between the farmer and the wind company but not calling them up at 10:30 and say I want it shut down at 10:35. It's an agreement that's made days in advance.

COMMISSIONER FIEGEN: Okay. Thank you. That is new information to me.

Also the insurance issue is new information to me also.

So you talked about you heard in Iowa that some residents had insurance issues with a broker. Could you elaborate on that more?

THE WITNESS: No. It was an allegation that was unfounded that an objector was bringing out that they thought they were going to have a problem with having a wind turbine in the area.

In my investigation, insurance companies are out to make money. They're risk averse so if they hear of anything that may be a problem, they're going to check it out. So I think it was something that was brought out by a concern, but, again, properly constructed, I haven't seen it.

COMMISSIONER FIEGEN: Okay. Thank you. Thanks for clarifying. Otherwise, you wouldn't have had any questions from me this time.

THE WITNESS: I would have missed you.

MS. CREMER: Chairman Hanson.

CHAIRMAN HANSON: Good afternoon, Mr. MaRous.

THE WITNESS: Good afternoon, Chairman Hanson.

CHAIRMAN HANSON: Welcome back to South Dakota.

THE WITNESS: Thank you.

CHAIRMAN HANSON: You did market analysis. You did not do appraisals on these properties; correct?

THE WITNESS: Correct.

CHAIRMAN HANSON: An appraisal would be far more granular than the market analysis. You're obviously well qualified to do a market analysis if you're doing appraisals as much as you have.

THE WITNESS: Correct.

CHAIRMAN HANSON: Might you have found different information under different rocks as you were going through an appraisal?

THE WITNESS: Considering the footprint, considering the character of the area, which is to some extent more influenced as it goes northeast towards Watertown where it becomes a little denser than it does when it goes -- or, I mean, northwest towards Watertown

as opposed to when it goes south and east in the Deuel area. I don't think so because of the setbacks and the general character and the general benefits, the economic benefits.

This basically will become, once it's developed, a new norm. It's going to be another strong economic ag crop that's going to add to the viability and the vitality of the whole area.

So would it impact -- we've obviously seen the issues with the Richter house, and those are allegations. In my opinion, no. But if you studied every house in the footprint, in my opinion, it wouldn't, but that would be a different type of analysis and different type of study.

CHAIRMAN HANSON: Thank you. In comparing a market analysis to an appraisal, would you give us your opinion on approximately how much more work an appraisal would be in comparison to a market analysis? A percentage is fine. You don't have to go through all of the --

THE WITNESS: Well, to do an appraisal you've got approximately 30,000 acres in this footprint. And probably you would break it out in the ag pieces, and you'd basically be appraising every single farm. And I haven't counted the number of farms, but there would be a

lot.

But you'd have to get into the soil productivity, the paved roads, any buildings on them that had value, and that type of analysis.

And then the houses. And, again, I don't recall the number -- let's say there's 200 in the footprint. Again, you would have to basically go inside everybody's house, which I could tell you from that type of experience, a lot of people don't want to let an appraiser just walk through their house. They consider it trespass.

So if you're not able to do that, then you've got an issue with do you know the condition? How old is the washer and dryer? How modern, how functional is the kitchen? Are the floors in good shape? How are the mechanicals, et cetera, et cetera?

So it would be a significant amount of work. And a lot of things that are going to influence value have to do with the conditional issues, the locational issues, and not necessarily a wind farm. So it would be a monumental task if you were going to do it right and do every piece. And, you know, it could take several years, and it obviously would be a very, very large fee.

CHAIRMAN HANSON: I assume you'd use all three methods: Income approach for value of farmland, market

for sales prices, and construction minus depreciation, things of this nature?

THE WITNESS: Well, I mean, where necessary. Simply with a farm -- let's just say it's a 500-acre tract with no buildings -- you're not going to do a cost approach. But you are going to look at the income of that, and you're going to take out the expenses and then cap it in a market cap.

Then you're going to look at sales. So you definitely do two. If there's significant farm structures on there, yes, you do all three approaches.

And the houses, you wouldn't do an income approach because that's not the way they're bought and sold. They're generally just bought the sales comparison approach. You may do a cost approach as a check, but if you've got a 60, 70 year old house, estimating accrued depreciation can be quite speculative.

CHAIRMAN HANSON: You talk a lot about valuations based upon feelings of people moving into residential areas. And that's been pretty much our line of questioning all along; do people want to live close to these facilities or not, and what's the impact?

What about -- I don't know if this question's ever been asked. What experience have you ever had with someone who is farming or ranching that they don't want

to be close to them or they aren't going to be purchasing the property? They're going to want to sell their property? Any experiences of that nature?

Not by the fact that they don't want to live there but -- and I can't introduce testimony from the past, but we've had some businesses that have not wanted to locate there.

THE WITNESS: So the quick answer is there are owners of large agricultural pieces that don't want to participate, don't want to be part of the project, and decline the offer to lease their land or have a turbine. I mean, that happens, just like with anything else. And the developers don't have condemnation powers so they can't force them to do it. So that happens all the time.

Do some people want to sell their land? Probably. But then there's other buyers that are more than happy to buy it. It's kind of like we see all the time with these estates when the patriarch passes or doesn't want it anymore and the kids have no interest. They put it on the market, and generally one of the large property owners in the area buys it right away. So it's the same type situation.

CHAIRMAN HANSON: Were you able to find any ideal comparables on your market analysis?

THE WITNESS: I don't think there are any ideal. There's a lot of examples. That's why we put a lot of data in the report, as did Mr. Lawrence.

But I think on the land situation, you know, there are groups out there buying land in the footprint with the hope or, you know, chasing sites with turbines on them because of the economic vitality that provides.

CHAIRMAN HANSON: Have you ever testified on behalf of the landowners in relationship to their desire and challenges to obtain -- well, I'll shorten that so I'm not qualifying it.

Have you ever testified on behalf of the Intervenors in opposition to a wind farm?

THE WITNESS: Not in opposition to a wind farm. But I've actually represented numerous private individuals in opposition to energy-related projects, such as power lines and gas lines where power companies were basically physically encroaching and causing damages. So I have testified in those matters.

CHAIRMAN HANSON: On page --

THE WITNESS: Just maybe to clear that up, I have been contacted by objector groups in relation to doing a study in regard to adverse impacts of wind and solar. And I have said I'm happy to do the study but based on my experience, I don't think my conclusion is

something that may support your position and you can make the decision and I've never been hired.

CHAIRMAN HANSON: On page 4 of your testimony in the first paragraph you state that property values are not negatively impacted by proximate wind farm projects. I'm not sure. I believe it was -- well, it was one of the Intervenors who had asked you a question pertaining to values. And I don't recall exactly what you stated, but I think one of the -- your very first response to things that might impact the value was proximate to the facility itself.

Is that controvert? Do you see a controversy between your remarks of saying on one hand that property values are not negatively impacted by proximate wind farm projects and your answer that one of the first things you thought of that would affect the value was its proximity to the --

THE WITNESS: Sure. It's proper setbacks. It's just like with power lines my experience has been generally 200 feet.

The initial wind projects, some of them had turbines less, in the 7 to 900 foot range. To me that's too close. Now the norm is 1,200 feet, 1,500 feet, three to four times tip height. I think the way the legislation has been, that's the issue.

But if you come in, let's say, under 1,000 feet at a 500-foot turbine, that's only two times the tip height. But the problem, though, is when you have a 45 to 55 dBA and you've got 30 hours of shadow flicker, you can't get that close anyway.

Again, I'm not the scientist or the engineer, but in dealing with those people, that's really what's come out.

CHAIRMAN HANSON: What are the three most important items to consider in relationship to purchasing a residence? The standard that everybody always says in real estate business.

THE WITNESS: Well, it's obviously location, location, location. For me it's what makes my wife happy. But I think it's really location and the services, the paved road, the modern amenities.

And, again, we're all bombarded, by these fix-up shows and these HGTV and the modern kitchens and the sleek and what's appealing to the people that are going to be buying our houses, which are the millennials. And it's really what does the market want? What can the market afford? What will they pay for?

And what's really happening today in my experience is location, is proximity to services, is paved roads, is a modern, functional facility, and high

quality infrastructure in the area, which means school, which means police, fire, health.

CHAIRMAN HANSON: Your later comments were along the line of my next question, and that is that people have a tendency to gravitate towards those facilities that they want -- for instance, if they have young kids, they're likely to gravitate towards schools; correct?

THE WITNESS: Absolutely.

CHAIRMAN HANSON: And towards comfortable transportation to work so they're not driving into the sun in the morning and driving into the sun in the evening when they're going to and from work.

THE WITNESS: Correct.

CHAIRMAN HANSON: And some people like to be closer to hospitals. Some people like to be closer to parks; correct?

THE WITNESS: Correct.

CHAIRMAN HANSON: And most people don't want to be around an industrial area; correct.

THE WITNESS: You know, it depends if the industrial area is providing economic incentive and providing jobs. Some of the strongest economic areas in this country are proximate to industrial type areas that are clean and modern facilities because they provide infrastructure and they provide jobs.

Do you want to look at a 50-foot-high concrete wall, and do you want 400 trucks a day going by? That's a whole nother issue. And then you have the noise issue, and then you've got the smell of certain productions if you've got, let's say, a tire plant.

And, you know, these noise, traffic, use, smell are all issues that we deal with.

CHAIRMAN HANSON: Based on that answer and the other dialogue that we've had and Mr. Richter's experience, which you verified by speaking with the broker, how can we say that there is no negative impact on value?

THE WITNESS: Simply because it's the modern trend. It is the new farm crop. It does provide the ability to sustain and improve the schools. It does provide the ability to pave roads. It does provide the infrastructure and the money that's needed and not only on a taxing base but for the people on the footprint, the money they now have to go buy the new vehicle, the new coat, go to the local restaurant, and have some money to spread in the community. It just provides the vitality to the community rather than let it languish and not keep up with competitive areas.

CHAIRMAN HANSON: Last question: Would you agree that there are some folks that just absolutely do

not want to be living in a residence and are not willing to purchase a residence close to, again, proximately -- close is a relative term -- to a wind farm?

THE WITNESS: I would agree. Just as there's some people who don't want to be rural, out in a gravel road, not convenient to services. I mean, people -- it's a personal choice. And you're driving at where the economics are, where the money is.

And I think I've said this before. One of the denser areas in the country is Silicon Valley. But, you know, a 1,200-square-foot house there is a million two and probably is going to have 20 to $25,000 a year taxes. But it's the jobs, it's the economics, it's the driving of the force. And that really -- that's economics of real estate.

And not everybody has to like every house. So I'm not here as a taste test. I'm here talking about the economics and what drives the ability to have the infrastructure, to have the high-speed internet, whether it's 4G or 5G or whatever you need to have for your grandkids to want to come visit you. I mean, it goes to modernization and demand.

CHAIRMAN HANSON: The next time we have you up for the very next wind farm I'm going to say yes or no. So get prepared for that question.

Thank you very much.

THE WITNESS: Thank you.

MS. CREMER: Commissioner Nelson.

COMMISSIONER NELSON: And actually that question feeds directly into where I wanted to begin.

Looking at this Richter property and as I looked at the aerial photos, it appears that there's a feedlot about 100 yards to the west of this home. Is it possible that there's a subset of potential buyers that would not want to live directly east of a feedlot?

THE WITNESS: Oh, clearly.

COMMISSIONER NELSON: The other question I've got in relation to that property -- and this puzzles me. And you talked about it a little bit, and you kind of tried to avoid the question. But I want to go to this property disclosure issue.

Now, obviously, in real estate you've got to be intimately familiar with property disclosures; correct?

THE WITNESS: Yes.

COMMISSIONER NELSON: I am not. But I took the time to review the property disclosure that's used in the State of South Dakota. And it appeared to me that those disclosures are all about disclosing items on your property that's being offered for sale.

I didn't see anything on there that requires

disclosure of things happening on someone else's property. Is that accurate, or am I misunderstanding the disclosure?

THE WITNESS: No. I think that is accurate.

COMMISSIONER NELSON: And so did Mr. Richter need to disclose what somebody else was doing on some other piece of property on his disclosure?

THE WITNESS: So my answer is no. But then if there was a personal feeling with some support, whatever it was, that it was negatively impacting value, maybe yes.

But, again, we get into a legal situation, and if it clearly was something that was negatively impacting value, then I think it, you know, maybe becomes a moral or ethical issue. But, again, I'm not playing lawyer up here.

COMMISSIONER NELSON: Well, so I want to pick apart that. And I understand you're not a lawyer.

So is the requirement on that disclosure to report anything that you're aware of that might negatively impact the value, regardless of whether it's on your property or somewhere else?

THE WITNESS: In my opinion, no. Because you could get into a situation where during a marketing period you may have something that comes up that, you

know, the stock market takes a big hit. You know, the China issue. There's an embargo. Do you change your statement? No.

Something that you think is permanent and impacts the use and enjoyment of the property, then I would say yes. So, I mean, it kind of goes both ways.

But things happen daily, and that's what happens with ownership of real estate. So it's not always good, and it's not always bad.

COMMISSIONER NELSON: Understand. And I appreciate your working down that line with me. I mean, obviously I'm looking for a clear answer as to whether something that's going on on somebody else's property needs to be disclosed.

You mentioned and I think you used the word "personal feeling." And as I read through this scenario obviously the Richters had a personal feeling about what was about to transpire across the road and thought that they needed to disclose that. And it appears, I mean, that was their decision.

My question was whether or not legally they needed to do that.

THE WITNESS: Well, and I'm going to divert back a little bit or digress. A lot of times people have neighbors they don't like or neighbors that don't

maintain their houses or neighbors that leave out junk vehicles or crap all over the place.

Do they have to disclose that? In my opinion, no. Again, that's personal choices. Because other people may think that's some type of art. I don't know.

So it goes to this whole personal choice issue and the view of turbines. While there's some people that don't like them, there's others that love to look at them. I mean, that's a personal choice. I'm not here to evaluate that. I'm here, how does it impact value.

COMMISSIONER NELSON: Thank you, sir.

MS. CREMER: Go ahead.

CHAIRMAN HANSON: I lied.

THE WITNESS: No. You had another thought.

COMMISSIONER FIEGEN: Yes/no.

CHAIRMAN HANSON: This will be a yes/no, I think.

I was just contemplating Commissioner Nelson's question, and when he asked does the seller have a requirement to disclose what is taking place close by in a neighbor area. And I'm not certain what his thought process is there except that it may lead someone to understand something better. I just wanted to fill in that just a little bit.

The seller may not have that requirement, but

certainly the broker who's showing the property and -- or listing the property has the responsibility to do that, or they're likely to end up in court after it's purchased and discovered; correct?

THE WITNESS: Or lose their license. It's a potential. I mean, just like a lawsuit, anybody can file a complaint against a broker yes.

CHAIRMAN HANSON: Okay. Thank you.

COMMISSIONER NELSON: Well, I appreciate Commissioner Hanson asking that question. You're going to wish that he probably hadn't.

So using the Richter property then, you feel that it would have been the broker's responsibility to disclose this potential wind farm, even if it wasn't the responsibility of the seller; is that correct?

THE WITNESS: I can't answer that yes or no. I think it goes if the broker has done studies or is on the record as saying that there's a negative impact, then clearly they should have.

If they haven't rendered any opinions or don't have any support, then I can't fault them. And I don't know. I'm not aware that this broker has made those statements.

And when I spoke with her she was very careful with the discussion and her conclusions. I tried, as you

have with me, and I didn't get, let's just say, some clearcut answers.

COMMISSIONER NELSON: Thank you.

MS. CREMER: Any redirect, Crowned Ridge?

MR. SCHUMACHER: Thank you. No.

MS. CREMER: So there was no redirect so there will be no recross, I believe has been my position.

Thank you. You may step down.

(The witness is excused.)

(Discussion off the record.)

MS. CREMER: Let's break until 5 minutes to 3:00.

(A short recess is taken.)

MS. CREMER: Crowned Ridge, you can call your next witness.

MR. MURPHY: Thank you. I call Mark Thompson.

(The oath is administered by the court reporter.)

DIRECT EXAMINATION

BY MR. MURPHY:

Q. Please state your name, business title, and company for the record.

A. Mark Thompson. I'm the manager of wind engineering within the engineering and construction organization NextEra Energy.

Q. What is your role with Crowned Ridge Wind II?

A. I'm responsible for engineering that supports the permanent construction and development of Crowned Ridge Wind II.

Q. Please provide a short overview of your education and experience.

A. I have over 17 years of experience in design, engineering, permitting, project management, and construction at both Florida Power & Light Co., NextEra Resources, including plants associated to similar facilities, such as Crowned Ridge II.

I have a bachelor's of science degree in electrical engineering from the University of Technology in Jamaica. I also have a master's degree business administration from Nova Southeastern University in Florida.

Q. Did you file Prefiled Direct Testimony and exhibits on July 9, 2019, Exhibit A1 and A4-1, Prefiled Supplemental Testimony and exhibits on September 20, 2019, Exhibit A15, and Prefiled Rebuttal Testimony on January 8, 2020, Exhibit A25?

A. Yes.

Q. Do you have any changes or corrections to the prefiled testimony and exhibits?

A. No.

Q. Please provide a short overview of your prefiled testimony.

A. Crowned Ridge Wind II, a 300.6 megawatt layout, consists of 117, sorry, GE 2.3 megawatt turbines and 15 GE 2.1 megawatt nameplated turbines, with the understanding that the 200 megawatt array will utilize 79 GE 2.3 megawatt and nine 2.1 megawatt nameplated turbines, and the deferred 100 megawatt array, if constructed in 2020, would utilize 38 GE 2.3 megawatt and six GE 2.1 megawatt turbines.

Although these turbines have the capability to be upgraded, Crowned Ridge has ordered GE and GE will deliver turbines that are nameplated 2.3 megawatts and 2.1 megawatts.

As it pertains to construction, we have evaluated the issues during the construction of Crowned Ridge I and determined the root cause to be a communication breakdown between the project team in the field and those in the Juno Beach office.

To ensure the same or similar issues do not occur, we have implemented a change in the process which involves assigning an internal compliance director. In his capacity as a compliance director he will review all permits and document all critical requirements, milestones, material required for compliance.

He will also ensure that all communications regarding permitting is communicated to all supporting

groups, including the construction contractor. Our internal automated document system will track critical requirements and provide weekly roll-up to senior director of construction Shawn Herrington for his oversight.

With the addition of this position and oversight by management, we are more than confident we can meet all permit obligations.

Thank you.

MR. MURPHY: Thank you.

I offer the witness for cross-examination.

MS. CREMER: Thank you.

Mr. Swanson.

MR. SWANSON: I have no questions for this witness.

MS. CREMER: Ms. Christenson.

MS. CHRISTENSON: Thank you.

CROSS-EXAMINATION

BY MS. CHRISTENSON:

Q. Mr. Thompson, my first initial questions I don't need an exhibit. Safety manuals were filed confidentially in this docket. Could you tell me what the GE safety distance would be for being in the proximity of a turbine during normal operations?

A. As referenced by the GE safety manual, this would be

1.1 times the tip height of the turbine.
Q. For workers as well?
A. That's in proximity to facilities not on the direct location of the turbines. For workers, they're able to be closer to the turbines themselves.
Q. Okay. What distance would GE recommend or any -- or the manufacturer, which is going to be GE, for the safety in being in the proximity of a turbine during abnormal operations, such situations as runaway operations or uncontrolled operations, component liberation, things of that nature?
A. The same requirement, 1.1 times the tip height, would apply.
I just want to go a little bit further in that. If you have a situation where you have a runaway turbine, there are safety measures put in place to stop -- immediately stop that turbine. So, hence, the 1.1 times tip height distance within the safety manual would be the same application.
Q. So there is never an instance where 1.1 times the tip height would be too short of a distance? Is there an instance -- I'll rephrase that.
Is there an instance where more distance would be required?
A. I'm not aware of any condition that exists at this

time or any situation that would dictate more distance would be required.

Q. Okay. Just in a past docket I thought I heard 1,300 feet. Has that changed?

A. 1,300, to my recollection, refers to the setback from certain property lines, maybe nonparticipating property lines.

Q. Okay. I was thinking it was a manufacturer safety zone. But that's not the case, in your opinion?

A. I'm not fully familiar with that situation.

Q. Okay. What distance does Crowned Ridge Wind's -- Crowned Ridge Wind II's insurer require for safe distance for workers during abnormal operations such as runaway operations, uncontrolled operations, or component failures?

A. Could you clarify that question? Is this pertaining only to the workers or any individual that might be in the vicinity of the runaway turbine?

Q. Well, I was thinking workers, but actually it could be anyone. It could be a farmer farming around his turbine. It could be a worker.

Anyone in the vicinity of a turbine, your insurer, what would they recommend or require?

A. Let me think about that for a second.

The safety manual clearly dictates the proximity

setback to these turbines, 1.1 times tip height. I'm not sure whether or not it distinguished whether it's a worker or an individual.

I think that the upper bounds of that limit would cover both the worker and any individual that might be in proximity to that turbine, which is the 1.1 times the tip height setback.

Q. Okay. And your insurance carrier or Workman's Comp insurance, there's no requirement for an insurance policy of any other distance, that you're aware of?

A. That's a very interesting question. As far as the -- to be quite honest, I've never looked into the Workman's Comp situation as far as the design is concerned. But I'm sure that someone from my organization could establish some light on that. But I'm afraid I don't have enough information to answer that question.

Q. Okay. And that would probably be Mr. Wilhelm? No?

MR. MURPHY: No. Objection. It's in no one's testimony, Worker's Compensation. That would have had to have been asked in discovery. This is outside the scope of everybody's testimony. No one's testified on Worker's Comp for contractors.

MS. CREMER: And I will have to take him at his word because we don't get Data Requests and that. So

that being the case then --

MS. CHRISTENSON: Okay.

MS. CREMER: Thank you.

Q. What is the closest distance a turbine in this project is sited near a public road?

A. I don't want to give you a wrong answer.

MR. MURPHY: Yeah. The objection is this is not a witness who has measured turbines to public roads. The setbacks were addressed by Tyler Wilhelm. And we've had people, consultants, who could -- we could provide that answer, but it would not be Mark.

MS. CREMER: So you can ask it of another witness, it sounds like.

MS. CHRISTENSON: Okay. So Mr. Wilhelm will come back and I can ask further questions or --

MR. MURPHY: I think to facilitate it, partly because Sarah Sappington is part of the organization who develops our maps, I would assume that she has the answer to that question or we can make sure she does.

MS. CREMER: Does that --

MS. CHRISTENSON: Yeah. Okay. Thank you.

Q. (BY MS. CHRISTENSON) Exhibit AC-9. And Staff graciously made you a folder right here (indicating).

A. Yes. They helped me out tremendously.

Q. Okay.

A. Okay.
Q. Okay. That's a Data Request to the Applicant that -- and Intervenors asked for a manufacturer's diagram of each style blade that will be used in the Crowned Ridge project.
The response by Attorney Schumacher claims that the information is confidential. However, you did provide pictures of blades and attachments to blades that are similar, as you say, that would be used in the project.
Given that, if permitted, the blades will be in the public, is there anything related to the GE blades that would be or could be harmful or dangerous to the public either in their design or the materials used to construct those blades?
A. Based on the information we have from the manufacturer, I would say no.
Q. Nothing toxic or carcinogenic?
A. Based on the information that was provided to us from the GE manufacturer, I would say no.
Q. And by that are you talking about the material safety data sheets that would be provided? Is there anything --
A. I didn't go through it in its entirety, but based on what I see, the information listed in there from a safety perspective, there wasn't anything listed or -- that

would suggest that there are materials in there that would be harmful to individuals.

Q. Thank you.

And I did ask Mr. Hart already. The low noise trailing edge blades are going to be attachments. They're not actual blades with trailing edges. Only attachments.

A. Yes. These are attachments to the blade themselves.

Q. And still on that same exhibit, you state, "To the best of Crowned Ridge Wind's knowledge, LNTE blades are widely used and the best available technology to reduce the sound pressure levels in order to achieve compliance with county regulations."

Is that still your position today?

A. Could you just remind me when that was written? Sometime in November?

Q. I don't know. It's No. 11. I don't have that in front of me.

MR. MURPHY: For clarity, it was December 12, 2019.

MS. CHRISTENSON: Thank you.

A. So shortly thereafter we did find out that GE was in the process of developing EPOC, enhanced power curve operation, that could also achieve lowering of sound generated by the turbine blades.

Q. Okay. And I remember us discussing that on January 7 in a different hearing. And I did inquire to GE about that.

And I'd like to give you this document and pass another document to everyone else for your review. I'll give it to you first so you have time to review.

(The document is distributed.)

MS. CHRISTENSON: It's going to take me just one second here because now we went out of order.

Q. Okay. This is an e-mail chain between me an account manager of General Electric -- or GE Renewable Energy where I asked him about the power curve software. Because it was described to us in that meeting as software, and you believe it to be software, from your testimony today.

A. Yes.

Q. However, Mr. Balleti says it's not software. And if you look at -- I'm going to find where he says it's not software. See what happens when I go out of order.

Oh. Right pretty much just below the middle of page 2 he says -- and I'll just read that -- "It is not software but hardware we put on the blades to help reduce noise. It has a different power curve associated with it. Yes. A reduced output would/could can the noise."

So then right above that is my next inquiry to him.

I apologize. My e-mail chains go backwards. And I wrote to him and said, "I found the power curve software thing" -- those are my words -- "we talked about in our notes," and I was referring to that meeting that we had January 2. And I described what I thought was said in the meeting. I tried to transcribe off the recording because we hadn't gotten our transcript yet.

And his reply right above that says, "Yes. But it has nothing to do with noise or reducing output. It helps out around the knee of the power curve."

And then on the previous page I asked for a brochure, and he says, "There's nothing published. What are you trying to do? Maybe I can answer the question."

I tell him, "We're trying to reduce noise. That's our goal." Because I think that's all our goal here. And then his final answer to me is, "That feature is not intended to reduce noise. It is for getting a little -- for AEP out of the turbine."

So I seem to get conflicting answers. I don't know where software comes in and where attachments to the blade come in. Maybe I should just let you explain.

A. Yes.

Q. Thank you.

A. So I can tie this together for you.

So let me kind of weave the thread to put this

together.

Yes. It is software. Yes. It does reduce sound. The maximum sound that can be generated by a turbine when it is at its full output can be reduced.

So where this software comes in -- well, let me start from what causes the noise -- or the sound. Sound is generated by turbulence on the leading edge of the turbines. If you can reduce that turbulence or break it up -- similar to teenagers going to a party, if you put a parent in there, you can reduce the amount of noise that they make.

So you can reduce this turbulence that is generated by the tip -- the blades two ways. Number one, you can reduce the speed because the turbulence is a function of the speed of the blades, or you can -- so reducing the speed or you can actually let the blade spin at the same speed, but you actually put things to break up that turbulence.

As far as the EPOC is concerned, you can achieve full output by reducing the speed, reducing the turbulence by feathering the blade. For you to feather the blade you have to put in a software or use a software to send a signal to the turbine controllers to say, hey, I want these blades to be feathered but I want you to slow your speed down and increase your torque so that you

can generate the same amount of output at a lower speed. So that's where the link between reducing noise, containing your output, and the software comes in.

Q. That's a pretty good explanation. However, it's still -- I have a question.

Actually I'll start with this, and you can stop me if you've heard this one.

When we were out in the field in Crowned Ridge I looking at blades there were little white pieces. It wasn't the low noise trailing edge that were attached to blades. They looked like a little L kind of. Would that be the pieces that you're talking about that would be attached to a blade on this EPCO [sic]? I'd have to find a picture.

A. Well, actually for the EPCO there is actually no attachment.

Q. Okay.

A. For the LNTEs there's actually a physical attachment on the blades. Both of them reduce sound reduction by breaking up the turbulence.

It's similar to wing tips on aircraft, the jetliner's wing. You put these wing tips on the end to reduce the turbulence, and you get better lift with your jetliner.

Q. Okay. So when Mr. Balleti says it's not software

but hardware we put on the blades --
A. Right.
Q. -- why does he say that?
A. I have no idea why he would want to say something like that.
Q. Okay.
A. I've been in contact with the GE engineers, and we talk about, you know, how it works and what are the inputs, what are the outputs. So I don't know why he would make a statement like that.
Q. Okay. I'm just going to move on then because you gave me a good explanation. Thank you.
Your response to question 5 in my Data Request -- we're still on AC-11 there -- it states the purchase dates of the turbines. You probably don't even need it. You know this in your head.
A. Okay.
Q. They were purchased in June of 2016, the safe harbor ones, and 2018 -- September of 2018, the other ones.
My question, and I had asked Tyler earlier, have those turbines, those specific turbines purchased in 2016 and 2018, been specifically reserved for this project and are the turbines that will be constructed for use in this project?
A. Yes. So the ones that were purchased in 2016, those

are our safe harbor units. And the remainder of the turbines that were purchased, the majority of those are in storage. Nine of those turbines would be direct shipped this year to complete the entire amount required for the project.

Q. Okay. Since you purchased them in September of 2018 and 2016 -- I don't want to get into an argument about nameplates and models, but the 2 megawatt platform, since these were purchased back then, are these going to be actually models of 2.1s and 2.3s, that you know of?

A. Yes. They're within the same family, yes.

Q. Okay. I think you're supposed to ask -- or answer my blade question.

A. You remembered.

Q. Sorry.

So I'll reread that. Exhibit AC-9, your response to question 3 about the weight of each blade. The weight is 25,203 pounds. I'm going to leave off the decimal.

So at the end of the life of this project there will be 396 blades and many more during the life of the project, which I understand the first five years are when you -- the most blade failures because of shipping, et cetera; right?

Okay. So just at the end of life that will require a disposal of 9,980,575 pounds of refuse, or the shipping

weight is 11,840,004 pounds of refuse.

Not knowing if any of blades are toxic at this point, which we don't believe they are, according to you earlier, and we'll assume they're not, where is Crowned Ridge II intending to dump 10 to 12 million pounds? And that number would double if there was the -- the other project would be at the same time. And I understand now that those are different projects. So we'll just talk about 10 to 12 million pounds of blade refuse.

Where have you made plans to dump that much blade refuse? And that doesn't include any rebar, cement, anything else. Just the blade refuse.

A. So as it stands right now, you're correct. They would be disposed of in a landfill, pursuant to the applicable laws. The plan -- and I assume that you mean at the end of life of the project.

Q. Yes.

A. The plan as it stands right now is to cut these blades up into pieces for transport and dispose of them in landfills. Now this is usually a contracted process. And the landfills could either be local or off-site or out of state.

Given that we're over 20 years away, we think that there would be, you know, processes that are developed or put in place to maybe recycle some of these. So

disposing of these blades in landfills I think is the worst-case scenario or would I say last resort.

So I think that with the options that are possibly under development, you could see that the amount of refuse going to these landfills could be significantly less.

I just want to put something in perspective. As far as the weight and the amount of refuse, when you compare that to the landfill, it's relatively small for the amount. And, again, we're hoping that at the end of the day or the end of life we'll find a way to recycle these Fiberglass blades. Or even reuse them.

Q. How long have they been using Fiberglass blades in this industry? How many years, do you think?

A. Oh, my God. My first ever wind site that I went to in California, Tehachapi Mountains, they were Fiberglass blades there. And that site was built in the '80s. So it's been a long time.

Q. Okay. And they haven't found a way to recycle them as of yet, and that's, oh, my gosh, 40 years. Look at that.

A. Oh, sometimes things change really overnight sometimes.

Q. Okay. In your Direct Testimony, which is Exhibit A4 -- A4, that's the Applicant's. Yeah.

And you probably don't need to see this either.
A. Okay.
Q. Well, you can try.
You say ice buildup can be detected through higher than normal vibration. How would higher than normal vibration affect the normal operating sound profile of a turbine?
A. The sound profile of a turbine.
Q. Yes.
A. I have to go back to my engineering roots here. So I did say maybe 15 minutes ago that sound or -- the sound that's generated is a function of the tip speed, and it's because of turbulence.
So if a blade is vibrating, as long as it's spinning, it's going to generate turbulence. So I don't know if there is a correlation between a vibrating blade and the amount of sound it produces. I have no information on that.
Q. Okay. So a follow-up to that. Ice buildup on a blade, do you know if that causes more sound, more noise, than a blade that does not have ice buildup?
A. From a logical perspective, if ice builds up on a blade, normally they're going to -- that blade, that turbine itself would be shut down. So if it's not spinning, I assume that there wouldn't be any turbulence

so there wouldn't be any noise.
Q. But until you get higher than normal vibration, you don't even know there's ice on the blade. Am I understanding that correctly?
A. I have to think about that for a second.
Q. Okay.
A. My logic is not coming together. Sorry.
Q. That's all right. It just would stand to reason if ice buildup is detected through normal or higher than normal vibration, more vibration would equal more sound, and you wouldn't know there was ice unless it's vibrating.
And we're good.
A. Given a little bit more time, I'll probably be able to put it together. But right now I'm kind of --
Q. Okay.
In your Supplemental Testimony, Exhibit A15, page 2, lines 6 and 7. A15.
A. Just go with the question.
Q. Okay. You tell us that there are physical features that prevent oil leaks from reaching the ground and are contained in the basin in a nacelle. How much oil is in each turbine?
A. So the gear box -- I had that on my fingertips. Is it okay if I -- because I don't want to state the wrong

volume of oil that's in there. It's over 100 gallons of oil.
Q. Okay. That's fair. And how much oil will the basin hold? Is the basin -- it sounds like the basin --
A. It's a catchment basin that's designed on the turbine floor. If you want to describe it, it has lips all the way around it so if you have an oil leak, it will contain that oil leak.
Q. It sounds like the basin may be a little shy of holding the entire oil amount. Would that be right?
A. I would say yes. But in the event you have a leak, unless you have a catastrophic failure, not all the oil would be spilled from the gear box.
So I think the way the basin is designed, it's designed to capture that oil resulting from a -- resulting from not a catastrophic leak then, so to speak.
Q. Okay. On page 3 of that same document you tell us turbines that are placed closer than the manufacturer's recommended spacing will increase wake. Tell me what affect increased wake would have on a turbine's noise profile, both the dBA and the dBC ranges, please.
A. Again --
MR. MURPHY: Objection. I know Mark well. I don't think he would be able to articulate the acronyms that were explained. Unless you feel comfortable.

My objection is it's not in his testimony. He's not a sound expert.

MS. CREMER: Would you be speculating in answering? Or can you answer the question, I guess?

THE WITNESS: I think I would probably use background knowledge, but I could be wrong. So in that sense, I'd rather not answer the question.

MS. CREMER: So then I would direct that you can ask the question of a different expert.

Q. Okay. Would you know which expert would know the effect of wake? Which of your fellows in the band back here?

A. And let me just clarify your question. The expert that could understand what's the effect of wake and noise?

Q. Yeah. The effect the increased wake would make on the noise, the sound profile.

A. To be quite honest with you, I don't think anyone on this team has that background knowledge to correlate wake and sound. That would probably have to be someone from WindLogics working with the sound expert to put that answer together.

It's probably more than one expert that would have to come together to understand the effect and the output of those two coming together.

Q. Okay. Would that be something that NextEra would be willing to do? Or Crowned Ridge Wind II? Or I don't know if you can make that decision.

MR. MURPHY: I think we would need to understand a little bit more of the parameters. Because wake is a general concept and I can't say I understand it but I know working with those experts, they would need to know the amount of wake you're concerned about or the distance and, you know, the turbines involved.

I'm not -- I have no objection to trying to get that information. But to Mark's point, it would be our sound experts, Haley and Rich Lampeter would have to work internally.

You know, I'm not sure how relevant it is particular to this proceeding, but I would defer to the Commission if they thought it was. And if it was, then we would get the information.

MS. CREMER: So you can move on. We'll sustain that objection.

MS. CHRISTENSON: Okay.

Q. Actually I could just ask, are there any turbines that are placed closer than the manufacturer's recommended spacing in this project?

A. Not that I'm aware of.

Q. Okay. Lines 5 and 7 say, "The increased wind loads

would compromise turbine structures and present a safety risk for maintenance personnel." How would this structure be compromised?

A. So the foundations themselves for each wind turbine are designed based on certain wind loading and, of course, the load-in by the towers.

When you start waking turbines you're introducing more longitudinal and lateral load on these turbines. And they might exceed the foundation design requirements that could, you know, compromise the structure, the integrity of the structure.

Q. Oh, and we already talked about the power curve so I can let that go.

One last question. How much weight does it take to knock the blades out of balance? How much differentiation would have to be on one blade versus another? Is it much? Is it five pounds? Is it 200 pounds to knock them out of balance?

A. I don't know. I don't have a specific number. But just based on the fact that these are balanced and it has to be balanced so that when it rotates within the hub and the bearing within the hub it doesn't, you know, produce longitudinal axial load-in.

I would say, you know, minimal -- and we'd have to clarify minimal. Minimal amount of weight on these

blades that could throw it off balance and cause actual load-in on these bearings.

Q. Okay. And I did think of one more.

When these blades are shipped for new turbine construction they're shipped in threes, and it's like it's a matched set, it seems like.

Are they a matched set? Are they specifically like manufactured together? Yes?

A. They're a matched set, and they go to a specific turbine site, yes.

Q. Okay. So if one blade delaminates or gets struck by lightening, do you have to replace all three?

A. No. Replace one.

Q. Okay. So there's nothing specific about the other two? The parameters would be the same?

A. Yes.

MS. CHRISTENSON: That's all I have.

MS. CREMER: Mr. Robish.

MR. ROBISH: Okay. Al Robish.

CROSS-EXAMINATION

BY MR. ROBISH:

Q. These are questions I asked Mr. Tyler. He referred them to you.

MS. CREMER: Mr. Robish, I'm going to have you just move your mic. a little bit closer.

MR. ROBISH: Okay. How is that? More?
Q. What building permits are required in the three counties of Codington, Deuel, and Grant? What building permits? Are all three counties the same?
A. It's my understanding, yes, they are. The permits required for the construction of the wind turbines, foundations, yes.
Q. Okay. Will the Applicant display all the building permits at each site location?
A. Yes.
Q. Okay. And then when will they be displayed?
A. These will be displayed right at the start of the construction, which is the excavation of these turbines.
Q. Will they get the permits, then go to the site and display them before they start any construction?
A. My understanding in talking to the field as late as today, that's the plan that they will put in place for Crowned Ridge II.
Q. Okay. Thank you.
MR. ROBISH: That's all I've got for you, Mark. Thanks a lot.
THE WITNESS: Thank you.
MS. CREMER: Thank you.
Staff.
MS. REISS: Thank you. I just have a few

questions for you.

CROSS-EXAMINATION

BY MS. REISS:

Q. The first one deals with ice accumulation and vibration on the turbines. Do you recall talking about that a little bit today?

A. Yes.

Q. So when you discussed that, was the vibration the machine detects the vibration occurring on the blade itself or on the rotor shaft?

A. It would be on the rotor shaft.

Q. Okay. And so if the vibration would be on the rotor shaft, the vibration you mentioned in your testimony wouldn't impact noise; is that correct?

A. Could you phrase that question a little bit differently for me, please.

Q. Sure. If the vibration is occurring on the rotor shaft, would it have an impact on the noise produced from the turbine?

A. If the blades are spinning at the same velocity, generating the same turbulence and it's vibrating, then I think that the noise level would be the same.

Q. Okay. And then just to jump back to follow up on some of Ms. Christenson's questions, on page 2 and 3 of your Supplemental Testimony you testified about

potentially spacing turbines closer than the manufacturer recommendations; correct?
A. Yes.
Q. I believe you indicated that at this point the turbines are not spaced closer than recommendation; is that correct?
A. Right. They are not spaced closer than recommended by the manufacturer. That is correct.
Q. Okay. Can you clarify? Is the company seeking approval to site them closer, if necessary?
A. I'm not aware of the -- for this particular project whether the company has been seeking approval to place them closer than recommended by the manufacturer.
Q. Okay. You mentioned an explanation on page 74 of the Application, within that testimony. Do you recall or do you remember what's on page 74 of the Application?
A. No.
Q. Can we pull it up possibly.
Before you pull it up, it has to do with county ordinances. Perhaps that would refresh your memory.
A. Setbacks?
Q. Yes. And you had referenced page 74 in your testimony. And I've been looking at the pages before and after that. They all seem to be similar.
Are you familiar with this section of the

Application?
A. Yes.
Q. Are you aware of any requirements from the -- from any of the three counties affected that would prohibit spacing turbines closer than the turbine manufacturer's recommendation?
A. I'm sorry. Could you just repeat that question. I was trying to follow here while you were talking.
Q. So we've heard testimony there's three counties --
A. Right.
Q. -- involved?
A. Correct.
Q. Are you aware of whether any of those three county ordinances would prohibit spacing turbines closer than allowed by turbine manufacturer recommendations?
A. I'm not aware of that.
Q. Could you go to the end of page 75. And there's a column listed Turbine Spacing.
A. Right. Correct.
Q. Can you tell me what your understanding of that statement would be, that turbines shall be spaced no closer than is allowed by the turbine manufacturer?
A. So this statement says, "The turbines shall be spaced no closer than is allowed by the turbine manufacturer in its approval of the turbine array for

warranty purposes."

So I think that goes back to my original statement that you want to follow the recommendation of the turbine manufacturer because there are implications if you go closer than they recommend.

One of the situations I referred to was the waking of one turbine to the next if they're placed closer and the implication it has on the integrity of the actual turbines. So this in effect is -- this particular statement is relating to that, that you have to at least abide by the turbine recommended -- turbine manufacturer recommended spacing.

Q. Okay. So then can you help me understand what is meant on page 2 to 3 about potentially spacing 10 percent of the towers closer than manufacturer's spacing, knowing that this is one of the county ordinances and with the testimony you've provided today?

A. So if you don't mind, could you just refresh my memory on that statement within the testimony?

Q. Sure. Those pages beginning on line 20. And I can -- I can just pull it out for you if that would be easier. And I guess if it's easier, I can rephrase the question if it makes more sense.

I guess why is the company essentially, as I read it, indicating that 10 percent potentially of the

turbines would be spaced closer than recommendations, given the issues you've brought up in your testimony on the county ordinance prohibiting that?

A. I think this is -- this is saying -- this is consistent with what's in there. If you go to the lines -- the remaining lines of this, it says that, "Turbines that are placed closer than the manufacturer's recommended spacing will experience increased waking, which results in reduced turbine efficiency and increased wind loads on foundations and towers. The increased wind loads could compromise turbine structures and present a safety risk for intended personnel."

And I'm seeing where you're seeing there's a disconnect between the first couple of lines and the remainder of the --

Q. Yes.

A. I'd have to get some time -- because it seems as if the first couple of lines it's stating something different from the actual final conclusion. It might have been a typographical error, as far as that is concerned.

And because the final four lines is consistent with what's in the manual, I'm going to say this is probably an error in responding.

Q. All right.

MS. REISS: Nothing further. Thank you.

MS. CREMER: Chairman Hanson.

CHAIRMAN HANSON: All but one of my questions have been answered. So good afternoon.

THE WITNESS: Good afternoon.

CHAIRMAN HANSON: On page 4 of your testimony you state, "The wind turbines provide the power needed to operate the systems and components during normal wind conditions, while the local retail power provider provides the power during no wind conditions."

Can you tell me, do you have a special arrangement with them for purchasing their electricity? Is it wholesale or resale -- or retail that you're purchasing?

THE WITNESS: So this would be retail emergency power during no wind condition.

CHAIRMAN HANSON: Thank you very much.

COMMISSIONER NELSON: Good afternoon. And I'm still trying to get you up here when it's 30 below, and we have failed again this time.

THE WITNESS: You have not totally failed. It was very cold this morning.

COMMISSIONER NELSON: No. Mark, that's the wrong answer. Let me give you an easier one.

I want to follow up on some of Ms. Christenson's

early questions talking about the safety zone being 1.1 times the tip height during normal operation.

What does that mean? What does a safety zone of that size mean?

THE WITNESS: So the safety zone was determined by the ability for whether it's ice throw or maybe a defragmented blade to be thrown.

And we looked at research. Not us in particular, but GE has gone through extensive research and looked at what's the maximum distance that a dislodged part or piece of ice could be thrown? And they have added an additional distance to that. And that's how they came up with the safety zone for outside of this zone.

Then the probability of being -- coming in contact with either ice or a defragmented blade, the probability is very, very low.

COMMISSIONER NELSON: And so inside the safety zone, what are they saying? Are workers allowed there? Are landowners allowed there? Are hunters allowed there? Or not?

THE WITNESS: So, Commissioner Nelson -- so, from experience, they could be in that vicinity, but I take it they would have to make the necessary arrangements if they're not workers.

For example, if I'm going in a wind site and I'm going in close proximity to the turbines, I have to make sure I call the local operating maintenance folks to say I'll be in this vicinity. And normally, you know, you would have to go through a safety orientation to be within that vicinity.

Now turbines are located on farmland, they're located on land that is sometimes accessible to local folks. So to answer your question, they could be in that zone determined by the turbine manufacturer.

COMMISSIONER NELSON: So it's a safety zone where there could be safety issues, defragmenting blades, ice throw, et cetera, but it is permissible for landowners and hunters and others to be within that area.

That's what I'm hearing you say; correct?

THE WITNESS: I would say our general safety procedure would be unless they have reason to be there, they would be admissible. If they don't have reasons to be there, I would say from just a -- just from an individual safety concern you want to make sure that you're acting in the right way all the time.

COMMISSIONER NELSON: I want to act in the right way all the time. But I -- well, let me ask the natural follow-up question. Has your company advised the owners of the properties that you're going to have turbines on

that they should not be within 1.1 times the tip height of the turbines?

THE WITNESS: They informed them that they shouldn't have infrastructure, whether it's a building or anything of that nature. I don't know of any communication with landowners that they can't be within 1.1 times tip height. Because I know that some of the local farmers, they do farm right up to the turbines themselves.

COMMISSIONER NELSON: Okay. So you can see where I'm a little puzzled here. If the safety zone means anything, it would seem that your company should communicate that with the landowners.

But I'm understanding that that has not happened; correct?

THE WITNESS: I can't state definitely that it hasn't happened. I'm not aware of it.

COMMISSIONER NELSON: Thank you.

Let's go to some of the earlier questions that Mr. Wilhelm punted your way. Can you explain the ADLS infrastructure?

I think there's some misunderstanding as to what's involved in that. And I think even a few things he said are even different than my understanding of what it was. So explain it to us.

THE WITNESS: So the ADLS system, Aircraft Detection Lighting System, is a means of detecting aircraft and using that information to turn lights on and off so that you don't have lights on all the time.

The system in itself has three major components or three major designs. Number one, it's the radar tower -- the radar on the tower. This radar system is placed on the tower, strategically placed within the wind farm so that it can scan the entire footprint.

The second portion to that is control cabinets that are placed at the foot of this tower. The other major component to that is another control cabinet that is placed in a substation that is used to interface the radar system, the remainder of the system.

And the fourth component is the actual lights on the tower that is used as a beacon to go on and off when there's aircraft detected in the area. So there's four major components.

COMMISSIONER NELSON: And so would it be accurate that the lights that are on the top of the towers are going to be the same lights whether or not you implement ADLS? Is that correct?

THE WITNESS: You're 95 percent correct. It could be the same lights. However, the ADLS manufacturers have come up with a specialized light that

they said this is the most optimum light that you have to use.

So you're right. The lights will be there regardless. As far as what lights, that's where the distinction comes in. So the lights will be there, yes.

COMMISSIONER NELSON: So in relation to this project, Crowned Ridge II, understanding that you may not have permission from the FAA to implement this system until July or later, the lights that you are going to be ordering, will they be compliant with ADLS?

THE WITNESS: Yes. They are compliant with ADLS.

COMMISSIONER NELSON: The two -- I understand there's going to be two radar towers; correct? For this project?

THE WITNESS: Correct.

COMMISSIONER NELSON: And if the extra 100 megawatts is added in the future, will those two cover that also?

THE WITNESS: No. You'll need another -- at least another radar within the vicinity of the 100 megawatts.

COMMISSIONER NELSON: Are those radar tower locations indicated on map A27 too?

THE WITNESS: Yes.

Bear with me one second so that I can find the radar locations. So they're closest to Turbine 71 and 17.

CHAIRMAN HANSON: Microphone, please.

THE WITNESS: So there's one location at --

I should know this. Can I call for help who knows exactly where they are?

Mr. Oberg, can you point out where these radar are?

MR. OBERG: One is to the north, and one is on the south side.

COMMISSIONER NELSON: Okay. Mr. Thompson, since you've got the microphone, I'm going to ask you this again. Are these located on this map and indicated on this map? I don't see them in the legend.

THE WITNESS: They're not showing on this map.

COMMISSIONER NELSON: Okay. Thank you.

How tall are those towers?

THE WITNESS: For Crowned Ridge II we haven't yet established the height. The reason being, there are trees in the area that we have to go out and do a survey to see how tall these trees are. Because the radar dish itself typically has to go above these trees to prevent saturation.

So we are in the process of determining how tall

these towers will be. We're estimating between 40 and 70 feet.

COMMISSIONER NELSON: Thank you. So then using the numbers that Mr. Wilhelm was talking about this morning, we've got two towers, and so we're going to be somewhere between a million and a half and $2 million for that infrastructure; correct?

THE WITNESS: Correct.

COMMISSIONER NELSON: And then to find out what I think Commissioner Hanson was trying to get at this morning, how much it costs per turbine, we would simply do the division using the $2 million figure.

Is that accurate?

THE WITNESS: That would be an average spreading out the cost. But the individual turbine itself, which consists of the light and down tower cables, you know, you're talking somewhere in the region of about $3,000.

COMMISSIONER NELSON: Understand. Thank you. That clears it up for me. And I guess if Commissioner Hanson has any further questions, he can ask those.

So let's look again at A27-2. I started asking some questions about the 100 megawatts that's going to be deferred. And obviously most of those turbines are in the southeast portion. But we've got a couple scattered ones that are going to be deferred.

And in particular I'm looking at Turbine 55 and Turbine 34 that are going to be deferred. How did you decide to pick a few random ones that are not directly in the southeast portion?

THE WITNESS: So after we optimized the 200 megawatt -- after the engineers optimized the 200 megawatt array, we had alternates available. And because we wanted to complete the deferred 100 as far as the 100 megawatts, we decided to pick these turbines to use as part of the 100 megawatts.

COMMISSIONER NELSON: And so was it reasonable that those are maybe lower producing turbines or turbines that you would expect a lower production from?

Is that the reason that you defer those?

THE WITNESS: They are turbines that have constructability issues, difficult constructability issues that, you know, we would rather not build them in the 200 megawatts.

COMMISSIONER NELSON: Not impossible but more difficult; correct?

THE WITNESS: More difficult. Correct.

COMMISSIONER NELSON: I think that's all the questions I've got for you.

Thank you.

THE WITNESS: Thank you.

MS. CREMER: Commissioner Fiegen.

COMMISSIONER FIEGEN: Because we can't ask Staff to clarify sometimes the testimony, I have to ask you in public, of course.

On page 2 of your -- or 3 of your supplementary testimony it talks about when there is low wind speed or when there is calm winds and how much it costs or how much electricity you would consume.

And it says 1 percent or 30 megawatt. That doesn't make sense to me. So I'm reading this wrong.

THE WITNESS: No. You're --

COMMISSIONER FIEGEN: Because 1 percent would be 3 megawatt.

THE WITNESS: 1 percent of the overall 300 megawatt site.

COMMISSIONER FIEGEN: So what's the 30 megawatts? It would consume approximately -- if I went to the "or," it would say 30 megawatts of its generation capacity.

Help me understand that.

THE WITNESS: So the 30 megawatts of its generation capacity, considering that you had -- have an NCF of just over 50 percent, that would be the total generating capacity of the site.

COMMISSIONER FIEGEN: Okay. So help me

understand. Because, of course, you're working with MISO and SPP. And often we see on the coldest day or the hottest day of the year there is no wind.

So just how much would you consume in megawatts if you were not generating?

Like you would buy power from somebody.

THE WITNESS: Right.

COMMISSIONER FIEGEN: How much power would you be buying?

THE WITNESS: Commissioner Fiegen, let me go to the exact location where this is stated so I can answer your question.

COMMISSIONER FIEGEN: Okay. Perfect. I'm sure I'm just reading it wrong, Mr. Thompson.

So I just wanted to clarify on September 20 you added testimony. And on page 3 it looks like line 20, 21, 22 -- I'm just having -- I'm struggling on understanding how much generation you would buy.

Because, of course, the queue is very concerning to a lot of people when we bring on wind to SPP or MISO. How much generation are you using when it's the coldest day of the year or the hottest day of the year and you're not generating power -- this wind facility is not generating power?

How much load are you going to take to operate

your facility?

THE WITNESS: So yes. This is correct. I got to the page, and I saw it. It would be 1 percent. The approximate load demand during no wind condition would be 1 percent of the total megawatt nameplate rating of the site.

COMMISSIONER FIEGEN: So I am just really struggling with my math today. So 1 percent to me is 3 megawatts. And so it causes me alarm when it says 30 megawatts.

THE WITNESS: It's 3 megawatts. I'm sorry.

COMMISSIONER FIEGEN: Okay. So it is 3 megawatts. I couldn't figure out if you were doing a -- okay. Thank you.

I bet you he's going to correct his testimony; right?

THE WITNESS: Yes. It's actually 3.

COMMISSIONER FIEGEN: You were alarming me because I'm always nervous about the SPP load and when wind doesn't blow and what we're going to do on the grid. So 30 megawatts was making me a little nervous.

THE WITNESS: I probably wrote this when it was very cold.

COMMISSIONER FIEGEN: Well, SPP is actually -- yeah. Their biggest load, of course, is when it's hot.

But yes. You were probably up in North Dakota when you wrote this.

THE WITNESS: Yes.

MS. CREMER: Is that it?

Redirect, Crowned Ridge?

MR. MURPHY: Just briefly. It's more in the form of clarification.

REDIRECT EXAMINATION

BY MR. MURPHY:

Q. You were having a discussion with Staff over the manufacturer's recommended distance and the county ordinance. Do you recall that?

A. Yes.

Q. Can you go to the Application to the pages that you were at, which starts on page 74? Let me know when you're there.

A. I'm there.

Q. Okay. So on page 74 do you see -- it starts on -- 73 starts at County Ordinance in Codington County, and on 74 there is a category called Turbine Spacing?

A. Yes.

Q. Do you see in that category the 10 percent language that's also in your testimony?

A. Yes.

Q. And then if you scroll down or page over to 75,

which is Grant County?
A. Yes.
Q. Same turbine spacing on that page. Is that language reflected in your testimony as well?
A. Correct.
MR. MURPHY: Thank you. That's all I have.
MS. CREMER: Thank you.
Mr. Swanson.
MR. SWANSON: No questions.
MS. CREMER: Ms. Christenson.
MS. CHRISTENSON: No questions.
MS. CREMER: Mr. Robish.
MR. ROBISH: No questions.
MS. CREMER: Staff.
MS. REISS: No, thank you.
MS. CREMER: Well, you're done. Thank you for your testimony.
THE WITNESS: Thank you.
(The witness is excused.)
MS. CREMER: You may call your next witness.
MR. MURPHY: Thank you. Call Jay Haley.
(A short recess is taken.)
MS. CREMER: Crowned Ridge, you may call your next witness.
MR. MURPHY: Thank you. I call Jay Haley.

(The oath is administered by the court reporter.)

DIRECT EXAMINATION

BY MR. MURPHY:

Q. Please state your name, business title, and company for the record.

A. My name is Jay Haley. I'm a mechanical engineer and a partner with EAPC Wind Energy in Grand Forks, North Dakota.

Q. What is your role with Crowned Ridge Wind II?

A. I provided the noise and the shadow flicker studies.

Q. Please provide a short overview of your education and experience.

A. I have a bachelor's degree in mechanical engineering from the University of North Dakota. I spent five years as the director of engineering for a small aerospace manufacturing firm and then 10 years as a senior design engineer and a research engineer at an energy and environmental research center.

I've spent the last 20 years as a mechanical engineer and a partner with EAPC Wind Energy. My experience in the wind industry goes back to 1983 when I developed a wind monitoring system for Northern States Power while I was a student at the University of North Dakota.

I have experience in most aspects of wind

development, including wind prospecting, wind resource and energy assessment, wind farm design, noise and shadow flicker assessments, photo visualizations, as well as due diligence for financial institutions.

My firm is also the North and South American sales and support agents for the software called WindPRO that is -- was used to conduct the analyses for the Crowned Ridge II project. WindPRO is the most widely used software tool in the world for wind farm design.

As the agent, I have trained hundreds of engineers and technicians in the proper use of the software in the design of wind farms, including sound and shadow flicker analysis.

Q. Did you file Prefiled Direct Testimony on July 9, 2019, Exhibit A2, Prefiled Supplemental Testimony and exhibits on September 20, 2019, Exhibit A14, A14-1 through A14-4, and Prefiled Rebuttal Testimony and exhibits on January 8, 2020, Exhibits A21, A21-1 through A21-3, as well as Exhibit A28, an update to Exhibit A21-3 and an update to Exhibit A29, which was an update to A21-1?

A. Yes, I did.

Q. Do you have any changes or corrections to that testimony or exhibits?

A. No, I do not.

Q. Please provide a short overview of your prefiled testimony.
A. For the Crowned Ridge project I provided the sound and shadow flicker studies. For the sound study the inputs to the model were the turbine locations and specifications, including noise data, hub heights, and blade type, the terrain elevation data, ground attenuation assumptions, atmospheric attenuation assumptions, occupied structure locations, and land parcel boundaries for the Codington County.

The conservative assumptions that were used in modeling the noise and the sound were that, number one, the turbines were always operating at maximum sound emission levels. An additional 2 decibels were added to all of the turbine sound emission data. Receptors are assumed to be downwind of all turbines at all times, which is a physical impossibility. Atmospheric conditions were assumed to be most favorable for sound transmission. Grant County receptors were modeled with a 50-foot radius circle around the main receptor. Alternate turbines were -- all alternate turbines were also included in the analysis, with the exception of when we conducted the Hessler analysis.

The noise limits applied to this project were, for Codington County, 50 decibels at nonparticipating

property boundaries. For Deuel County it was 45 decibels at nonparticipating occupied structures and 50 decibels at participating structures. And for Grant it was, again, 45 decibels at nonparticipating structures and 50 decibels at participating structures.

In addition, we also applied the Grant County limits to all structures in both Deuel and Codington Counties, which was the 45 decibels at a distance of 25 feet from the perimeter of all structures.

The results of our sound studies -- and when I talk about the results I'm talking about the latest study that was submitted, which was a 300 megawatt alternative to Mr. Hessler's proposal. And with those results all of the receptors with all three counties were in compliance. And in addition to that, all of the occupied structures were in compliance with Grant County's ordinance.

For shadow flicker, the inputs to the model were turbine locations and specifications, which included the width of the blade, the hub height of the turbines, and the turbine power curves. We also inputted terrain elevation data, wind data, which included the measurement, height, the wind speeds of the wind directions. We input the sunshine probabilities on a monthly basis. And we input the occupied structure locations.

The conservative assumptions that were applied to the study were, number one, that the sensors were treated as a greenhouse sensor. That means that the sensor which would be one meter by one meter square in a vertical position is omnidirectional so it's simultaneously looking in all directions at all turbines at all times. There is no facade that doesn't have a window. It's a very conservative receptor assumption.

We took no credit for blockage from trees or buildings. We assumed that turbines were available to produce 100 percent of the time. There was never a turbine that wasn't in operation if the wind wasn't blowing. The turbine rotor was always directly facing the sun. And all of the alternate turbines were included in the analyses, with the exception of when we performed the Hessler studies.

The realistic assumptions applied to the model were that the flicker does not occur unless the sun is 3 degrees above the horizon. I'm sorry. I missed that. The realistic assumptions were that, yes, that the flicker will not occur until the sun is 3 degrees above the horizon.

The sunshine probabilities were taken into account. Turbine operational time was taken into account. And the turbine wind directions were taken into account. The

shadow flicker limits that we applied were 30 hours per year at all occupied structures for all three counties.

And the results of the study were that all receptors were in compliance with the 30-hour per limit, with one exception, which was Receptor No. CR1-C10-P, which is a participant. And we expect that receptor would experience 38 hours and 20 minutes per year.

And the contributing turbine in that case is Crowned Ridge II-Alt. 3, which is a turbine in the 100 megawatt portion of the array.

That's the conclusion of my comments.

MR. MURPHY: I offer Mr. Haley for cross-examination.

MS. CREMER: Thank you.

Mr. Swanson.

CROSS-EXAMINATION

BY MR. SWANSON:

Q. Mr. Haley, in identifying property owners as either participating or nonparticipating for the purposes of your study, did you rely on information that you would have received from Crowned Ridge for that purpose, or did you make that determination?

A. That information was provided to me by Crowned Ridge.

Q. Did you -- you also did the sound study for the

purposes of the Special Exception Permit in Deuel County, did you not?
A. I'm not sure what you mean by Special Exception Permit.
Q. Conditional Use Permit?
A. Yes. I performed the studies for all three counties.
Q. All right. I represent four individuals who are all nonparticipating property owners. And in your study two of those are identified as participating: Greber and Ehlebracht. And if that, in fact, is the case and is erroneous, that information would have been provided to you by Crowned Ridge, I understand?
A. Yes, it would. But I'm not aware of that error.
Q. Nobody has brought that to your attention?
A. No.
Q. In your study -- or in your statement, Exhibit A2, you do make mention to ISO 20 -- 9613-2. And I'm sure in your line of work you have been involved in that standard for quite a number of years, have you not?
A. Yes, I have.
Q. Is there another standard that would specifically apply to wind turbine modeling or forecasting?
A. There are others. It depends on what kind of a standard you're talking about. This standard --

Q. Okay. For acoustics then. Acoustics.
A. Yes, there are. There are a number of them.
Q. But you use ISO 9613-2?
A. Yes, I do. As do just about everyone else that I know of in the United States.
Q. And the scope of that document, you're aware that it specifically states it is intended for ground-based noise sources?
A. Yes. I'm aware of that.
Q. Yeah. Do you consider a wind turbine to be a ground-based wind source, even though it's relatively high in the sky?
A. The industry as a whole in the United States and in other countries has adopted the 9613-2 as a standardized way of performing the noise assessments. It's commonly used throughout the world.

It was developed long before wind turbines were around, and it was adapted for wind turbine use by standardizing a number of assumptions that go into that model so that we know that the results that come out are going to be reasonable and reproducible and measurable.
Q. Do you make any adjustments to your calculations based on the fact that the noise source is, say, 80 or 90 meters in the air?
A. We input a number of conservative assumptions that

when used in combination with each other have been demonstrated by verification in the field that the results will yield numbers that are going to be consistent with what would be measured when the turbines are in operation.

Q. Is there a percentage or anything like that that you can point to as a calculation that you apply?

A. I'm not sure what you're referring to.

Q. Well, you've added 2 dBA, for example, to maximum sound power in your statement. It indicates you've added that. Do you add anything else or subtract anything in terms of a fractional or whole number dBA based on the fact that it is emanating from a source that is high in the air?

A. No. The uncertainty margin that we add is the 2 decibels.

Q. You talk a little bit in your statement -- and I can't tell you exactly where it is, but you talk about a G factor. And you know what that is, of course. For ground attenuation; is that correct?

A. Yes.

Q. Can you tell me how that works? You indicate the factor is 0.5.

A. Yes. That's the recommended value that we use in combination with the other conservative assumptions.

Q. Are there other factors that would typically be used in recording or estimating noise output from a wind turbine?
A. Well, the ground factor goes from 0 to 1, where a 0 represents hard ground like concrete or pavement or water or sheer glare ice, for example. On the other end of the scale at a 1, that would represent a very soft, porous, sound absorbing type of surface. The .5 is right in the middle.
Q. So a 1 would have the ability to absorb sound?
A. Yes.
Q. And the 0 would be reflective of sound?
A. Yes.
Q. If you were -- what would snow cover be? What would be the absorption qualities of that?
A. Snow is very sound absorbing.
Q. So you would give that a what if you were --
A. I'm not going to speculate on individual factors because everybody would have a different opinion on that.
Q. So you say it might be a 1 if it's snow-covered?
A. Could be.
Q. And so if it's a factor of 1.0, then it assumes that the sound output from the wind turbine is being lessened by the time it reaches a dwelling or an occupied property.

A. Yes.
Q. More so than if it was a factor of 0, for example?
A. That's correct. Yes.
Q. If you were to apply the same test then -- let's say a hypothetical target is 45 dBA at a structure and you're using a factor of 0 versus a factor of 1.0.
What's the difference at that destination of the target on a dBA basis?
A. Well, if you use a 0, then clearly there would be less attenuation, and the noise predicted at the receptors would be higher.
Q. All right. And if you used a .10, what would it be?
A. A little bit less.
Q. Could it affect it by 2 or 3 dBA?
A. I don't know.
Q. Well, for mixed ground cover to be effective it assumes that there is a -- I'm not in your line of work, but it assumes that there is a -- from the source to the receptor that there is some sort of a glancing or bouncing effect for the sound; is that correct?
A. A .5? Is that what we're talking about?
Q. In that case, yes?
A. So a .5, it's halfway between a hard surface and a fully absorbing surface so we could assume that there would be some reflection and some absorption.

Q. What about sound transmitted directly from an 80 or 90 meter hub height to a residence that doesn't have trees or anything of that sort blocking it?

That transmission of sound would not be affected by ground attenuation, would it?

A. What you're talking about would be what I would call a physics-based model, as opposed to an empirical model. 9613-2 is more an empirical model, which means that you're not modeling the exact physics and the equations that represent that physics.

You're coming up with factors and then empirically verifying that those factors get you the right answer by measurement. So you learn over time that if you put in a .5 with these other factors, you get the right answer. You can't explain it exactly with physics, which is what you're asking me to do, with this turbine that height directly pointing at a receptor. That's not how that model works.

Q. So it's a fudge factor that's involved in your work?

MR. MURPHY: Objection to fudge factor. It's not in evidence, and it's not what the witness said.

MR. SWANSON: I'm asking him to characterize what it is. I think it's a fair statement. If he says it's not that at all and he's got another explanation, that's fine.

MR. MURPHY: Then I'll make an objection that it's argumentative because he's inferring it's a fudge factor.

MS. CREMER: It is argumentative, and I believe you can ask it in another manner.

Q. Somewhere I've come along -- or come across a term, which I think -- and I can't locate it right offhand, but I think it is called extra attenuation.

Is there such a term?

A. I don't know.

Q. You're not familiar with that?

A. No, I'm not.

Q. Is there a type of attenuation which actually would be magnifying in character, whether it's based on atmosphere or moisture conditions or anything else?

A. I don't know. I would say that there could be some reflection of sound. There can be absorption of sound. I'm not aware of any amplification of sound.

MR. SWANSON: Thank you. That's all I have.

MS. CREMER: Thank you.

Ms. Christenson.

CROSS-EXAMINATION

BY MS. CHRISTENSON:

Q. Hi, Mr. Haley.

A. Hello.

Q. In Exhibit A1, your Direct Testimony on page 1, line 6, you describe yourself as a wind engineer. Could you tell me what that entails, if there is any educational requirement to being a wind engineer?
A. No. A wind engineer is a term that's been adopted by a number of us that work in the wind industry. I'm a mechanical engineer by education. Because I've been working in the design of wind farms over the last 20 to 30 years, when I tell people that I'm a mechanical engineer they tend to get confused. When I tell them I'm a wind engineer they say, oh, okay.
Q. So there's no extra formal education that you've taken to be a wind engineer outside of being a mechanical engineer; is that correct?
A. That's correct. Other than self-study and experience.
Q. Okay. In line 9 you say your responsibilities were to conduct sound and shadow flicker studies for Crowned Ridge Wind II. By conducting studies do you mean that you went into the field to the project area to perform scientific tests or something similar?
A. No. I did not perform any field work. That was done by others, and then their information was provided to me by Crowned Ridge II.
Q. Did you visit the project area at all?

A. I've been around this -- the area in Watertown many times.
Q. Okay. Just for like meetings and things but not really going out into the field to look at any --
A. No. I've been in the wind farm area.
Q. Okay. So is it fair to say that you input data given to you into a software program? There's no field work. And so it's basically data input that produce your studies or your modeling?
A. Yes.
Q. Okay. So to confirm, you did no preconstruction ambient noise, no lay of the land, nothing like that, that would make a difference on anything that you would input into your computer?
A. I'm not sure what your question is.
Q. Me either.

No preconstruction ambient noise study was conducted by you or anyone else that you're aware of?
A. That's correct.
Q. Thanks. When I left that last half off, it worked.

Okay. On line 15 you mentioned you've performed ice throw studies, and you said that in your opening statement. Did you perform any ice throw studies for this project?
A. No, I did not.

Q. Did Crowned Ridge Wind II ask you or anyone that you are aware of for any ice throw study to be done for this project?
A. They did not ask me, and I do not know if they contacted anyone else.
Q. Thank you.
Did Crowned Ridge Wind II approach you about assessing infrasound or low frequency noise for this project?
A. No. They did not ask for a specific study on low frequency or infrasound noise.
Q. Is your program, WindPRO, is that capable of such a study?
A. The program takes into account low frequency noise but not infrasound.
Q. When you say it "takes into account," can you explain that to me?
A. The noise data that we get from the manufacturers that describe the noise profiles include sound emission data in the low frequency octave range.
Q. Okay. Thank you.
On line 18 you say you are also the North and South American sales and support representative for WindPRO, the software you used for modeling this project.
In that capacity you state you've trained hundreds

of people on that program. In the manual for the software that you represent and train people on, what attenuation is recommended to be used for modeling?
A. I don't believe that there is a recommendation in the manual on how to use the software. I don't recall seeing that. I don't believe that they would put a recommendation in there for that. They maybe would give some general guidance, but I'm not aware of that.
This software is used all over the world and conditions are different everywhere, so I can't imagine they would put some single recommended value in there.
Q. A guide, perhaps, in there? Like you gave us just an example of 0 to 1. Would that be listed in your software?
A. I honestly don't know. It's been a long time since I looked at the manual.
Q. Okay. On page 3, line 22 you state, "The dBA at the base of a turbine is 55 to 60." Now in my head, in my mind, the noisemaker on a turbine is nearly 300 feet in the air, 295 feet in this project.
Noise doesn't drop like with gravity. Am I correct?
A. Just with distance.
Q. So more of a pie shape or an angular?
A. Spherical. It propagates outward in a spherical manner in all directions.

Q. So noise is much louder downwind away from the base. Would that be a correct statement?
A. Typically, yes.
Q. Lines 20 to 22 on page 4 you say, "The sound power levels represent the highest operational sound emissions."
By that do you mean normal operational emissions?
A. We get -- like I mentioned earlier, we get a sound profile from the manufacturer that lists the sound emission levels at different wind speeds, and the higher the wind speed, the higher the noise level.
We picked the highest level out of that chart, and then we assume that that's the level the turbine is emitting all the time, regardless of wind speed.
Q. But, again, that would be normal, not an abnormal operation such as a runaway turbine or a grinding gear or --
A. Yes. That would be correct. No. It's under normal operation.
Q. Do they give you any specifications for abnormal operations that you have reference to? Perhaps, like I say, a grinding gear?
Is there any instance in the information you receive that is higher than normal sound --
A. No.

Q. -- factor?
A. We don't get information of that nature from the manufacturer. And I've never been asked to model an abnormal operational situation.
Q. Okay. On page 5, starting at line 16, you quote the Grant County Ordinance, 2016-01C.
Are you aware of the ordinance requirements that were in effect on December 17, 2018, when the Conditional Use Permit was approved?
A. I know of the changes that were taking place. I don't recall off the top of my head what those changes were or the dates that they occurred.
Q. So in the ordinance that was in effect at the time the Conditional Use Permit was approved the noise requirement would include all accessory structures.
Did you include all accessory structures in your modeling?
A. I did. Not in the current results, but at the time I did. It was a lot of work.
Q. I believe you.
A. Yes.
Q. And so why are those not included at this time since that ordinance is the governing ordinance of that Conditional Use Permit?
A. Accessory structures are not a part of the

requirement in the new ordinance.
Q. Correct. But it was passed under the old ordinance. So who directed you to drop the accessory structures?
A. I don't recall, but the -- I can tell you that when -- at the time that the accessory structures were a part of the ordinance we calculated -- we went out and surveyed all of the accessory structures, and I calculated all of them and produced reports with those results.
When the ordinance got changed, I then took all the accessory structures back out.
Q. Page 7, lines 12 and 13, you indicate your software "calculates shadow flicker every minute of every day for a receptor for an entire year"; is that correct?
A. Yes.
Q. I notice on your studies that flicker is presented annually. Have you run reports for Crowned Ridge Wind that have not been presented here depicting how many minutes a receptor receives per day?
A. No, I have not.
Q. Are there any receptors who receive more than 30 minutes per day?
A. Yes.
Q. How many?
A. I don't know. I looked it up in the lunch break

today for the receptors that are over the 30-hour limit that are going to be curtailed based on your question from this morning.

Q. Could I ask for that report to be available to --

A. There is no report. It's one receptor. I looked up the value. It's 55 hours per year, and it's receptor CR1-C10-P, as I referenced earlier in my testimony today.

Q. I also notice when you talk about flicker you reference sunshine. Most of the homes in this project are in the rural areas in wide open spaces.

Is moon flicker considered in your model?

A. No.

Q. Dakota Range turbines have not been included in any of your sound studies for this project; is that correct?

A. That's incorrect. They have been included.

Q. In the recent ones or --

A. All of them. Well, all but the very earliest studies, which is going back to 2017.

Q. Oh, I have a note in here. I see in your Supplemental Testimony my flicker is reduced by two minutes again, and I want to thank you for that.

A. It wasn't me.

Q. Okay. Here's my biggy. We're going to spend some time on this probably.

In the Grant County Conditional Use Permit Letter of Assurance, which is Exhibit A1-K, you might want to --
A. Is that the Application?
Q. A1-K. It would be the Appendix K of the Application, I would say. Maybe you don't need to turn that but --
A. Way in the back. You're making me work for this one.
Q. Well, and you probably don't even need it.
A. I better need it. Okay. I'm in the A1-K.
Q. Okay. It says on page 11, item 3 --
A. No page numbers.
Q. Oh, sorry. It's subset 3 -- or subset B. I'll just read it to you. Yeah. You're kind of right in there. It's in the Letter of Assurance for Grant County.
A. Okay. I found that.
Q. Okay. Item 3, subset B. "Applicant agrees" -- oh, sorry.
A. There is no B. It's like printed -- it's not printed on the page.
Q. You might be looking -- oh, really?
A. It's like off the bottom of the page, and then I go to 4.
Q. Printer error. Well, I'm just going to read it for everyone, if that's all right.

"Applicant agrees that the construction and operation of all WES towers will ply with noise and shadow flicker thresholds exhibited in the Application's Noise and Shadow Flicker Analysis." In the studies presented in this docket there are four receptors listed for Grant County.

In Exhibit AC-19, which is probably in your folder on the corner there. My late-filed exhibit.

A. You said AC-19?

Q. Yes. I think it's AC-19. I better look and see.

A. All right.

Q. That's the Grant County --

A. Yep.

Q. -- sound and flicker report?

A. Yep.

Q. If you go to page 17 and the following four pages, so a total of five pages, you'll see those are all receptors for Grant County. And I counted 181 receptors in Grant County for that permit.

A. Uh-huh. Yes.

Q. And, like I say, the sound and flicker -- or the sound study submitted to this docket has four.

A. Yes.

Q. So how could you possibly be able to know if you're in compliance with the Conditional Use Permit if you're

missing 179 receptors for study?
A. Remember those accessory structures we were talking about?
Q. That are part of the ordinance that are governing the --
A. Those are the ones that --
Q. I don't think there's only four people living in Grant County.
A. In the Crowned Ridge II footprint there are.
Q. Actually now that you've closed that up, if you go back to page 22, the map -- I think that's AC-19.
A. Okay.
Q. You'll see those three turbines down on the bottom. And that's the sound profile, the lines there. You'll see how that sound emanates up into Grant County beyond four receptors.
A. This is a report from 2018.
Q. Yes. This is your Conditional Use Permit that you have to abide by showing -- showing how the sound profile travels out into the county. But there's no receptors in your PUC sound study showing that.
A. This report is from 2018, and the layout and the ordinance are completely different today than they were when this report was generated.
Q. But the governing ordinance for that Conditional Use

Permit and the Letter of Assurance that's been submitted to this docket say that you have to abide by these shadow and sound studies that you submitted to Grant County.

You understand?

A. I think I do. But that would not be a question that should be directed to me. I provided the shadow and sound studies. I did not provide that Letter of Assurance.

Q. Right. Okay. But you agree there's four receptors in the Grant County -- in Grant County, what you submitted to the PUC for your sound study. Yes?

A. The current reports, yes, they had there's four.

Q. Okay. So who would be the person to confirm that the sound profiles are in alignment with the Grant County CUP if you would not be that person? Who would do that? Who would I ask? And maybe Mr. Murphy would tell me.

No. Sorry. You were napping, weren't you?

MR. MURPHY: I think we've already been through this with Mr. Wilhelm so I'm not seeing why we need to rehash it.

So we have an objection to recalling a witness. That's already been asked and answered several times about this ordinance and when it was in place, the Letter of Assurance.

MS. CHRISTENSON: We didn't discuss the Letter

of Assurance earlier, I don't believe.

MR. MURPHY: Then I would have to understand what the question is around the Letter of Assurance.

MS. CREMER: Is it insurance or assurance? What are we saying?

MR. MURPHY: Assurance.

MS. CREMER: All right. Ms. Christenson, what is the relevancy of the ordinance to our permitting procedure?

MS. CHRISTENSON: They're following the wrong ordinance. They submitted the wrong ordinance to the docket.

MS. CREMER: And would that not be an issue in front of the county?

MS. CHRISTENSON: No. The county has an ordinance. The county issued a CUP. The county issued a Letter of Assurance. The Applicant submitted the wrong application and is using -- or the wrong ordinance and is using the wrong ordinance to define the sound and shadow flicker -- or, well, probably just the sound.

MS. CREMER: So this sounds like a legal argument that will be covered in your brief. Unless the Commission wants to hear more about what I am hearing is county ordinance issues, I would sustain the objection. But I'm willing to listen.

CHAIRMAN HANSON: I would just iterate that the first rule that we have is obey all rules and all laws that we promote from the standpoint of our regulations. And if you submit in your closing arguments and show that, then that is something that we have to look at and determine whether or not they are following all rules and regulations, regardless of whether it's a county or --

It's all laws and all rules. And so we would just simply look at that and state they have to follow the permits exactly as they are provided.

Does that solve what you're --

MS. CHRISTENSON: I think so. Except we don't have a study to really go by for the permitting process then, would be my argument. But we can move on from there. But there's no accurate sound study.

CHAIRMAN HANSON: Additionally, they have the burden of proof. So if they have not accomplished that, then they need to accomplish it.

MS. CHRISTENSON: Okay.

Q. Moving on, in Exhibit A1-I, which is Appendix I, the sound study submitted with the Application for Crowned Ridge II, page 1 continuing to the top of page 2 you assert, "Also the sound pressure level was calculated at a distance of 50 feet from the perimeter of structures instead of 25 feet. This is also a conservative

assumption because the sound pressure levels will be higher at 50 feet than at 25 feet."

Did you take sound pressure levels at 25 feet and compare them to 50 feet, or how do you come to that statement?

A. Yes. I did do those comparisons. So what I do is I generate a series of 12 additional receptors in a circle with a radius of 50 feet around the receptor location that was provided to me by the client. And then I do the sound simulations and take the highest level reading from those 12 receptors.

So in most cases it's going to actually be a little bit more conservative even than what it would be at 25. And in other cases it will be what it would be at 25.

Q. I have a question about that. So the receptor is typically the home. That's a principal structure?

A. Yes.

Q. If there are -- which most of these places have other buildings on their property. Does it reverberate from building to house? Would that show in your model?

A. No. The model does not take into account any sort of an obstruction or blockage or reflection from any sort of buildings or trees.

Q. Okay. Thank you.

A. It doesn't know the house is there. So it wouldn't

matter if it was on the west wall or the east wall. It wouldn't see that. That wall wouldn't come into play.
Q. How many projects have you modeled for NextEra?
A. I don't know the exact number, but I'm going to guess and say less than 10.
Q. Over the course of about how many years? Do you have an idea?
A. Going back to 2003.
Q. Have you ever had any complaints about the sound or flicker and that differing from the model you provided?
A. No. None.
Q. So you have not been told of any complaints or discrepancies in regard to the Crowned Ridge I project?
A. No, I have not.
MS. CHRISTENSON: That's all my questions. Thank you.
MS. CREMER: Mr. Robish.
MR. ROBISH: I have none.
MS. CREMER: Thank you.
Staff.
MS. EDWARDS: Thank you.

CROSS-EXAMINATION

BY MS. EDWARDS:
Q. First of all, is there a difference between noise and sound, or are those two words used interchangeably

when we're talking?
A. They get used interchangeably, but noise has more of a negative connotation to it. It's considered to be sounds that you don't want to hear, where a sound could be music or -- so that's more or less the difference.
Q. Okay. But, in effect, there's no difference? I'm not screwing anything up if I use one over the other?
A. I use them both.
Q. Okay. Thank you.
As a preliminary matter, I want to go back to something you've said -- you've testified before this Commission before; correct?
A. Yes.
Q. Do you recall testimony where you talked about how far sound could travel?
A. Boy, do I ever.
Q. And previously you've testified it can travel 25 miles; is that correct?
A. No. It's not correct. It was a misstatement or a lack of clarification on my part when it came up. It came up in the context of the change in noise levels at one of the Intervenor's homes. And it looked odd because it should have probably been a reduction, but it turned out to be an increase.
I had prepared that table at 10 o'clock at night the

evening before and noticed the discrepancy but did not have enough time to really figure out what the explanation was or, you know, what was going on.

So, sure enough, sharp eyes caught it and brought it up the next day. And the only thing that I had had time to figure out at that point was -- the first thing I do is say, okay. What's the difference between this model and that model? And the only difference that I had come up with at that point was that in the earlier version I had not included the Dakota Range turbines at that time. So I made that statement to Commissioner Nelson.

At the time I made that statement I really had no spacial idea of where Dakota Range was relative to the receptor we were talking about. And I should have stepped in and said, no, it's not 25 miles because it's more like 3 miles.

You know, even with your own noise expert, he has noted that with Deuel Harvest there would be no need to include that project in this noise study because there's no acoustical interaction because it's five miles away.

Q. Okay. And so when I was looking at your testimony in the Application that was sort of in the back of my mind. So you're saying take that 25 miles out of my mind; it's not accurate?

A. Please.

Q. I might try.

Have any of your models been verified based on actual measurements after a project came into operation?

A. None that I'm aware of. It's not to say that there haven't been some, but if there were, I'm not aware of it. Because my role with the developers, I come in, I provide my information, and that's maybe the last time I hear from them on that project.

I don't get any feedback two years down the road when something happens, unless there's a problem. And, like I mentioned earlier, I've never heard an issue with any of the work I've done so far.

Q. And I just had Amanda hand you a copy of what's been marked for illustrative purposes as Staff Exhibit 7. It's not been admitted into the record at this time.

Are you familiar with any sound conditions that the company may have agreed to?

A. Yeah. I read through the -- the noise protocol that's being discussed. Is that what you're referring to?

Q. Yes.

A. Yeah. I read through that yesterday morning maybe.

Q. Okay. And would that condition serve as a check on your models in practice?

A. Yes, it would.

Q. Thank you.

Within the last couple days it's come to my attention that my understanding of shadow flicker might not have been completely accurate. Can you explain to me exactly what shadow flicker is?

A. Sure. Shadow flicker occurs -- first of all, it's the changing light intensity within a closed space like a room in a house.

So what happens is the shadow from the blade passes over the window of the room, causing the light levels in the room to fluctuate, like your son or your daughters playing with the light switch and it can be annoying.

Q. So could there be -- if I can describe this, could there be a change in, say, a shadow on the wall that's not shadow flicker?

A. Yes.

Q. And so you could have, in theory, a house modeled at 0 hours of shadow flicker, but they could note some visible change at some point?

A. Yes. The way the model works is it -- when it's doing its calculation it -- based on the width of the blade, it makes a preliminary calculation to decide at which distance from the wind turbine there will be no more appreciable shadow flicker.

That's not to say that physically if you line the

sun and the turbine and the window up, that's not to say that they may still be in alignment for some distance beyond that. But at a particular distance, the shadow becomes so diffused that it's really no longer capable of causing flicker.

So in this particular case that distance based on the width of these blades is about 1,700 meters. And we do have receptors that are out to 2,000 meters. So the receptors that are beyond that 1,700 meters could, for a few hours a year, have that alignment where it potentially could be shadow flicker, but because it's so far away, that flicker is weakened, diffused to the point where it can't be considered shadow flicker.

Q. Okay. I don't think I understand that enough to ask more questions. So I'll have to move on.

And also turning to the proposed conditions in S7, are you familiar with a condition for shadow flicker?

A. No. I don't think so.

Q. Okay. Then I won't ask you about it. And I --

MS. EDWARDS: One second.

Q. Is the one nonparticipating receptor Ms. Christenson asked -- well, were you in the room for Mr. Hart's testimony?

A. Yes, I was.

Q. And I believe Ms. Christenson asked him about one

shadow flicker that was -- or receptor that was identified as CR2-98-NP. Are you generally familiar with that?

A. Yeah. On a lunch break I went and looked up the number she was looking for.

Q. Do you happen to know if the owner at that residence at that receptor location also owns property that is signed up as a participant?

A. I do not know that.

Q. Do you have any additional details on that receptor?

A. Which one? The one that we've --

Q. That CR2-C98-NP?

A. Right.

Q. And you said you looked into it a little more?

A. Yeah. That one would have a maximum of 40 minutes per day. And it would occur sometime during the month of December.

MS. EDWARDS: Thank you. No further questions.

CHAIRMAN HANSON: We had determined ahead of time that 5:30 is our drop dead date -- time.

We will begin tomorrow at 8:30 and start where we left off.

(The hearing is in recess at 5:23 p.m.)

STATE OF SOUTH DAKOTA)

:SS CERTIFICATE

COUNTY OF SULLY)

I, CHERI MCCOMSEY WITTLER, a Registered Professional Reporter, Certified Realtime Reporter and Notary Public in and for the State of South Dakota:

DO HEREBY CERTIFY that as the duly-appointed shorthand reporter, I took in shorthand the proceedings had in the above-entitled matter on the 4th day of February, 2020, and that the attached is a true and correct transcription of the proceedings so taken.

Dated at Onida, South Dakota this 25th day of February, 2020.

/s/ Cheri McComsey Wittler
Cheri McComsey Wittler,
Notary Public and
Registered Professional Reporter
Certified Realtime Reporter

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$100 [1] - 129:4
$15 [1] - 132:24
$15,000 [1] - 142:9
$2.05 [1] - 143:22
$205 [1] - 144:10
$205.62 [1] - 144:1
$25,000 [1] - 164:12
$28 [1] - 129:22
$3,000 [1] - 208:17
$500 [1] - 143:15

'

'80s [1] - 187:17

/

/s [1] - 250:17

0

0 [8] - 224:4, 224:12, 225:2, 225:6, 225:9, 231:13, 247:18
0.5 [1] - 223:23

1

1 [30] - 7:3, 10:13, 11:3, 11:4, 11:7, 11:7, 11:8, 11:8, 11:9, 12:16, 31:1, 47:19, 48:2, 57:15, 63:18, 83:9, 210:9, 210:12, 210:14, 212:3, 212:5, 212:8, 224:4, 224:7, 224:10, 224:20, 228:1, 231:13, 241:22
1,000 [1] - 161:1
1,200 [1] - 160:23
1,200-square-foot [1] - 164:11
1,300 [2] - 175:4, 175:5
1,500 [1] - 160:23
1,500-square-foot [2] - 136:4, 144:9
1,700 [2] - 248:7, 248:9
1-1 [1] - 11:8
1-10 [1] - 67:12
1-25-2018 [1] - 52:3
1-250 [1] - 1:9
1-4 [1] - 11:9
1-8 [2] - 33:6, 34:8
1.0 [2] - 224:22, 225:6
1.1 [9] - 174:1, 174:12, 174:17, 174:20, 176:1, 176:6, 202:1, 204:1, 204:7
1.7 [2] - 61:2, 62:6
1.7s [2] - 61:12, 61:18
10 [21] - 48:21, 66:16, 67:12, 71:13, 81:14, 111:24, 115:4, 124:18, 125:6, 142:9, 145:5, 186:5, 186:9, 199:14, 199:25, 213:22, 215:16, 225:12, 243:5, 244:25
100 [50] - 9:4, 28:15, 41:13, 48:12, 49:9, 62:23, 63:6, 63:22, 77:10, 80:4, 80:7, 80:14, 80:17, 82:8, 90:19, 91:6, 93:8, 93:12, 94:4, 94:14, 95:9, 95:14, 95:15, 95:20, 98:20, 98:21, 99:1, 111:16, 112:21, 113:1, 121:20, 123:19, 127:2, 127:6, 127:14, 127:17, 128:11, 128:14, 138:15, 165:8, 172:6, 190:1, 206:18, 206:22, 208:22, 209:8, 209:9, 209:10, 219:11, 220:9
100-plus-page [1] - 135:8
103 [2] - 80:20
104 [1] - 3:7
105 [1] - 3:8
10:30 [1] - 153:7
10:35 [1] - 153:7
11 [13] - 31:1, 36:7, 36:8, 38:16, 48:7, 48:21, 51:21, 51:22, 64:14, 64:19, 67:9, 179:17, 236:11
11,840,004 [2] - 71:9, 186:1
11.10 [9] - 36:6, 36:9, 36:18, 36:24, 38:13, 38:18, 38:19, 38:25, 39:1
11.9 [2] - 38:20, 38:22
111 [1] - 3:10
113 [3] - 3:10, 80:20
114 [1] - 3:11
116 [1] - 60:13
117 [1] - 172:2
11:00 [1] - 81:15
12 [11] - 38:20, 38:23, 65:4, 71:13, 88:7, 179:19, 186:5, 186:9, 234:12, 242:7, 242:11
126 [1] - 3:11
128 [1] - 3:12
12:00 [1] - 110:19
12:30 [3] - 110:20, 110:21, 128:6
13 [8] - 60:22, 81:1, 96:7, 96:14, 110:5, 112:24, 117:17, 234:12
13.33 [1] - 23:24
131 [2] - 3:14, 80:20
132 [1] - 71:3
134 [1] - 81:4
136 [1] - 3:14
14 [4] - 7:3, 9:11, 109:11, 110:7
140 [1] - 3:15
146 [1] - 3:15
15 [6] - 25:5, 56:21, 59:6, 172:3, 188:11, 229:21
150 [3] - 3:16, 139:19, 146:2
150,000 [1] - 88:9
152 [1] - 3:16
157 [3] - 33:4, 38:5, 38:10
16 [4] - 63:19, 121:11, 140:16, 233:5
16-1 [1] - 138:21
17 [7] - 47:15, 120:23, 121:6, 171:6, 207:3, 233:8, 237:16
170 [1] - 3:18
173 [1] - 3:19
179 [1] - 238:1
18 [3] - 10:22, 122:10, 230:22
181 [1] - 237:18
182-page [1] - 27:8
1878 [1] - 28:12
19 [2] - 96:7, 96:14
19,000 [1] - 83:11
19-003 [1] - 59:9
19-3 [1] - 47:19
194 [1] - 3:19
196 [1] - 3:20
1980 [2] - 132:12, 132:14
1983 [1] - 215:21
1:30 [3] - 98:9, 110:21, 131:6

2

2 [23] - 10:13, 26:24, 55:3, 55:20, 60:13, 97:5, 97:7, 128:21, 142:8, 180:21, 181:5, 185:8, 189:17, 196:24, 199:14, 208:6, 208:12, 210:5, 217:14, 223:9, 223:16, 225:14, 241:22
2,000 [2] - 141:11, 248:8
2,500 [1] - 142:6
2-10 [1] - 11:7
2-15 [1] - 10:12
2-16 [1] - 11:8
2-2 [1] - 11:7
2-3 [1] - 70:20
2-to-5-acre [1] - 143:11
2.1 [7] - 60:11, 62:11, 100:13, 172:3, 172:5, 172:8, 172:12
2.1-116-80 [1] - 9:11
2.1s [1] - 185:10
2.3 [8] - 60:12, 61:6, 62:12, 100:12, 172:2, 172:5, 172:7, 172:11
2.3-116-90m [1] - 9:11
2.3s [1] - 185:10
2.7 [1] - 61:6
20 [18] - 30:19, 64:11, 83:11, 112:8, 119:13, 133:19, 164:12, 171:17, 186:23, 199:20, 211:15, 211:16, 215:19, 216:16, 220:7, 221:18, 228:8, 232:4
200 [25] - 9:3, 9:8, 9:9, 57:4, 80:6, 80:9, 91:4, 95:4, 98:20, 99:1, 99:2, 122:4, 122:6, 123:15, 123:18, 127:1, 127:4, 128:13, 156:6, 160:20, 172:4, 193:18, 209:6, 209:7, 209:18
2003 [2] - 112:3, 243:8
2005 [1] - 143:16
2007 [1] - 111:20
2008 [3] - 24:15, 66:19, 69:22
201 [1] - 3:20
2011 [1] - 27:13
2012 [1] - 27:8
2015 [3] - 30:11, 109:13, 112:5
2016 [5] - 60:15, 184:18, 184:21, 184:25, 185:7
2016-01C [2] - 10:4, 233:6
2017 [1] - 235:19
2018 [13] - 47:15, 48:5, 48:6, 52:5, 60:15, 117:17, 184:19, 184:22, 185:6, 233:8, 238:17, 238:22
2019 [14] - 12:16, 30:18, 30:19, 48:20, 106:9, 112:7, 112:8, 121:11, 133:19, 171:16, 171:18, 179:20, 216:15, 216:16
2020 [21] - 1:8, 2:4, 12:9, 30:21, 31:5, 31:6, 31:10, 56:21, 56:23, 60:22, 64:15, 64:20, 112:24, 114:13, 133:21, 135:12, 171:19, 172:7, 216:18, 250:11, 250:14
21 [3] - 33:1, 33:4, 211:17
213 [2] - 1:25, 3:21
215 [1] - 4:4
22 [4] - 211:17, 231:17, 232:4, 238:11
220 [1] - 4:4
227 [1] - 4:5
23 [1] - 135:12
243 [1] - 4:5
25 [11] - 63:18, 132:23, 218:8, 241:25, 242:2, 242:3, 242:13, 242:14, 244:18, 245:15, 245:23
25,203 [2] - 70:22, 185:18
250 [3] - 125:2, 125:4, 125:6
25th [1] - 250:13
26 [3] - 60:15, 96:14, 115:15
262 [1] - 4:6
263 [1] - 4:6
27 [2] - 93:2, 93:15
275 [1] - 4:7

277 [1] - 4:7
28 [4] - 48:5, 48:6, 48:20, 60:15
283 [1] - 4:8
28th [1] - 50:15
29 [1] - 3:4
292 [1] - 4:8
294 [1] - 4:9
295 [1] - 231:20

3

3 [28] - 26:25, 80:15, 90:23, 91:2, 113:17, 117:22, 137:24, 142:8, 185:17, 190:17, 196:24, 199:14, 210:5, 210:13, 211:16, 212:9, 212:11, 212:12, 212:17, 219:19, 219:21, 220:9, 225:14, 231:17, 236:11, 236:13, 236:17, 245:16
3-2 [2] - 11:3, 56:16
3-8 [1] - 11:4
3-to-5-mile-an-hour [1] - 153:2
3.4 [1] - 23:24
30 [25] - 24:16, 27:4, 27:20, 119:15, 120:1, 132:23, 138:9, 138:18, 138:19, 139:6, 139:9, 139:20, 161:4, 201:19, 210:9, 210:16, 210:18, 210:21, 212:10, 212:21, 220:1, 228:9, 234:22
30,000 [1] - 155:22
30-hour [3] - 138:14, 220:4, 235:1
30-hour-a-year [1] - 25:3
300 [9] - 80:2, 123:13, 123:14, 124:24, 126:11, 128:13, 210:14, 218:12, 231:19
300-megawatt [2] - 71:3, 76:16
300.6 [3] - 82:5, 94:23, 172:1
301 [1] - 4:11
302 [1] - 4:11
313 [1] - 4:12
315 [1] - 4:12
316 [1] - 4:13
32 [1] - 3:4
321 [1] - 4:15
324 [1] - 4:15
326 [1] - 4:16
333 [1] - 4:18
337 [1] - 4:18
34 [6] - 90:22, 130:10, 130:19, 130:22, 145:17, 209:2
35 [5] - 142:15, 143:4, 143:9, 143:19, 146:1
35-acre [1] - 142:19
355 [1] - 4:19
367 [1] - 4:19
369 [1] - 4:20
371 [1] - 4:20
375 [1] - 5:4
378 [1] - 5:4
38 [3] - 124:9, 172:7, 220:7
388 [1] - 5:5
395 [1] - 5:5
396 [2] - 71:3, 185:20
3:00 [1] - 170:12
3:15 [1] - 110:23
3:30 [1] - 110:24

4

4 [11] - 1:8, 12:9, 20:8, 109:12, 119:6, 119:13, 130:8, 160:3, 201:6, 232:4, 236:23
40 [7] - 23:22, 24:24, 25:21, 139:14, 187:20, 208:1, 249:15
400 [2] - 137:24, 163:2
407 [1] - 5:7
42 [1] - 24:6
423 [1] - 5:11
429 [1] - 5:11
43-13-2(8 [1] - 28:3
430 [1] - 5:12
431 [1] - 5:12
439 [1] - 5:14
442 [1] - 5:15
446 [1] - 5:17
45 [8] - 24:16, 25:24, 139:5, 161:4, 218:1, 218:4, 218:8, 225:5
450 [1] - 5:17
452 [1] - 5:21
459 [1] - 5:21
46 [1] - 3:5
463 [1] - 5:22
469 [1] - 5:22
489 [1] - 5:23
49-41B-22 [1] - 12:18
490 [1] - 5:23
494 [1] - 6:4
497 [1] - 6:4
4G [1] - 164:20
4th [2] - 2:4, 250:10

5

5 [17] - 15:2, 20:8, 79:6, 81:1, 110:19, 115:7, 115:9, 117:22, 140:16, 170:11, 184:13, 192:25, 224:8, 225:21, 225:23, 226:14, 233:5
5.1 [1] - 41:9
5.2 [5] - 24:4, 41:8, 41:9, 41:15, 122:14
50 [10] - 139:5, 139:14, 210:23, 217:25, 218:2, 218:5, 241:24, 242:2, 242:4, 242:8
50-foot [1] - 217:20
50-foot-high [1] - 163:1
500-acre [2] - 141:22, 157:4
500-foot [1] - 161:2
508 [1] - 6:5
511 [1] - 6:5
514 [1] - 6:6
518 [1] - 6:6
523 [2] - 2:3, 12:10
534 [1] - 6:8
537 [1] - 6:9
539 [1] - 6:11
542 [1] - 6:11
549 [1] - 6:12
55 [5] - 90:22, 161:4, 209:1, 231:18, 235:6
550 [1] - 6:14
560 [1] - 6:14
580 [1] - 6:15
5:00 [1] - 15:1
5:23 [1] - 249:23
5:30 [3] - 110:24, 249:20
5A [1] - 30:25
5G [1] - 164:20

6

6 [12] - 10:22, 74:23, 75:2, 75:3, 76:24, 81:5, 85:22, 86:7, 113:18, 116:12, 189:18, 228:2
60 [3] - 139:20, 157:16, 231:18
60-1L [1] - 109:11
608 [1] - 6:15
61 [1] - 124:6
616 [1] - 6:16
65 [2] - 24:23, 77:9
67 [2] - 25:1, 25:2

7

7 [11] - 74:23, 75:3, 76:24, 79:4, 117:22, 160:22, 180:2, 189:18, 192:25, 234:12, 246:14
70 [9] - 38:5, 38:10, 38:11, 46:6, 139:21, 145:25, 146:2, 157:16, 208:2
70-74 [1] - 109:11
71 [1] - 207:2
72 [1] - 81:1
73 [2] - 3:5, 213:19
74 [7] - 3:6, 197:14, 197:16, 197:22, 213:15, 213:18, 213:20
75 [2] - 198:17, 213:25
77 [1] - 81:1
79 [1] - 172:5

8

8 [12] - 30:21, 62:15, 75:25, 77:19, 98:19, 98:20, 98:21, 119:6, 130:8, 133:20, 171:19, 216:18
80 [5] - 61:2, 61:5, 62:6, 222:23, 226:1
800 [1] - 142:6
81 [1] - 3:6
87 [1] - 59:5
8:30 [1] - 249:21

9

9 [5] - 30:18, 112:7, 171:16, 216:14, 228:17
9,980,570 [1] - 71:7
9,980,575 [1] - 185:25
90 [2] - 222:24, 226:2
900 [1] - 160:22
94 [1] - 81:4
95 [1] - 205:23
9613-2 [4] - 221:18, 222:3, 222:14, 226:8
97 [1] - 81:4
98 [1] - 3:7
9:00 [3] - 1:8, 2:5, 12:8

A

A.J [2] - 1:18, 16:20
a.m [3] - 1:8, 2:5, 12:8
A1 [3] - 7:3, 171:16, 228:1
A1-A [1] - 7:3
A1-B [1] - 7:4
A1-C [1] - 7:5
A1-D [1] - 7:5
A1-E [1] - 7:6
A1-F [1] - 7:6
A1-G [1] - 7:7
A1-H [1] - 7:8
A1-I [2] - 7:8, 241:20
A1-J [1] - 7:9
A1-K [4] - 7:9, 236:2, 236:4, 236:10
A1-L [1] - 7:10
A1-M [1] - 7:10
A1-N [1] - 7:11
A1-O [1] - 7:11
A10 [1] - 7:21
A11 [1] - 7:22
A12 [1] - 7:23
A12-1 [1] - 7:23
A12-10 [1] - 8:14
A12-11 [1] - 8:16
A12-12 [1] - 8:17
A12-13 [1] - 8:18
A12-14 [1] - 8:19
A12-15 [1] - 8:20
A12-16 [1] - 8:21
A12-2 [1] - 8:3
A12-3 [1] - 8:4
A12-4 [1] - 8:5
A12-5 [1] - 8:7
A12-6 [1] - 8:8
A12-7 [1] - 8:10
A12-8 [1] - 8:12
A12-9 [1] - 8:13
A13 [3] - 8:22, 112:8, 119:3
A13-1 [2] - 8:23, 112:8
A13-2 [1] - 9:3
A13-3 [2] - 9:4, 112:9
A14 [2] - 9:5, 216:16
A14-1 [2] - 9:6, 216:16
A14-2 [1] - 9:7
A14-3 [1] - 9:8
A14-4 [2] - 9:9, 216:17
A15 [4] - 9:12, 171:18, 189:17, 189:18
A16 [2] - 9:12, 133:19
A16-1 [2] - 9:13, 133:20
A17 [1] - 9:13

A17-1 [1] - 9:14
A17-2 [1] - 9:14
A17-3 [1] - 9:15
A17-4 [1] - 9:15
A17-5 [1] - 9:17
A17-6 [1] - 9:18
A17-7 [1] - 9:19
A18 [1] - 9:20
A18-1 [1] - 9:21
A18-2 [1] - 9:23
A19 [2] - 10:3, 30:20
A19-1 [2] - 10:3, 30:20
A19-2 [1] - 10:4
A19-3 [6] - 10:4, 49:1, 50:13, 52:17, 53:21, 54:10
A19-4 [2] - 10:5, 30:20
A2 [3] - 7:12, 216:15, 221:17
A20 [1] - 10:6
A21 [2] - 10:6, 216:18
A21-1 [3] - 10:7, 216:18, 216:21
A21-2 [2] - 10:8, 23:25
A21-3 [3] - 10:9, 216:19
A22 [2] - 10:10, 133:21
A23 [1] - 10:10
A24 [1] - 10:11
A25 [2] - 10:11, 171:19
A26 [2] - 10:12, 30:21
A27 [2] - 10:12, 206:24
A27-1 [1] - 10:13
A27-2 [4] - 10:13, 79:23, 89:18, 208:21
A28 [1] - 216:19
A29 [2] - 23:22, 216:20
A3 [1] - 7:12
A4 [3] - 7:13, 187:25
A4-1 [2] - 7:13, 171:16
A5 [2] - 7:14, 30:18
A5-1 [2] - 7:14, 30:18
A6 [4] - 7:15, 112:7, 113:15, 117:21
A6-1 [2] - 7:15, 112:7
A6-2 [3] - 7:16, 112:7, 123:8
A7 [1] - 7:16
A7-1 [1] - 7:17
A7-2 [1] - 7:17
A7-3 [1] - 7:18
A8 [1] - 7:19
A9 [1] - 7:20
abide [4] - 88:4, 199:11, 238:19, 239:2
ability [8] - 63:1, 80:6, 82:4, 163:15, 163:16, 164:18, 202:6, 224:10
able [26] - 15:3, 15:22, 20:1, 27:21, 44:18, 44:21, 45:10, 57:10, 57:22, 63:5, 63:24, 67:4, 82:5, 82:7, 83:4, 85:1, 93:10, 95:8, 108:7, 141:17, 156:12, 158:24, 174:4, 189:14, 190:24, 237:24
abnormal [5] - 174:8, 175:13, 232:15, 232:20, 233:4
above-entitled [2] - 2:2, 250:10
absolutely [9] - 47:10, 47:13, 93:25, 95:3, 105:24, 117:7, 151:19, 162:8, 163:25
absorb [1] - 224:10
absorbing [3] - 224:8, 224:16, 225:24
absorption [3] - 224:15, 225:25, 227:17
AC [1] - 18:22
AC-1 [1] - 10:21
AC-10 [2] - 11:6, 121:7
AC-11 [2] - 11:7, 184:14
AC-12 [1] - 11:7
AC-13 [1] - 11:8
AC-14 [1] - 11:8
AC-15 [2] - 11:9, 117:4
AC-17 [5] - 66:15, 114:21, 114:25, 115:4, 115:5
AC-18 [2] - 54:9, 55:1
AC-19 [5] - 18:22, 237:7, 237:9, 237:10, 238:11
AC-2 [1] - 10:22
AC-3 [1] - 10:23
AC-4 [4] - 10:23, 55:3, 55:19, 60:8
AC-5 [1] - 11:3
AC-6 [1] - 11:3
AC-7 [1] - 11:4
AC-8 [1] - 11:4
AC-9 [11] - 11:5, 62:15, 64:13, 64:18, 65:3, 70:20, 120:24, 121:8, 121:9, 177:22, 185:16
access [2] - 32:21, 44:18
accessible [1] - 203:8
accessory [8] - 233:15, 233:16, 233:25, 234:3, 234:5, 234:7, 234:11, 238:2
accommodate [2] - 63:12, 95:10
accomplish [1] - 241:18
accomplished [2] - 113:20, 241:17
according [9] - 23:22, 23:25, 59:9, 113:17, 118:17, 120:7, 125:7, 186:3
account [7] - 180:10, 219:23, 219:24, 219:25, 230:14, 230:16, 242:21
Account [1] - 8:11
accrued [1] - 157:16
accumulation [1] - 196:4
accuracy [1] - 93:12
accurate [13] - 21:19, 74:13, 78:7, 78:14, 126:9, 126:10, 166:2, 166:4, 205:20, 208:13, 241:15, 245:24, 247:4
accurately [1] - 61:22
achieve [3] - 179:12, 179:24, 182:19
Acoustic [1] - 7:5
acoustical [1] - 245:20
acoustics [2] - 222:1
acre [6] - 141:20, 141:21, 141:24, 142:7, 142:8, 142:9
acreage [3] - 142:14, 142:24, 143:3
acreages [1] - 134:25
acres [7] - 142:5, 142:15, 142:18, 143:4, 143:5, 143:19, 155:22
acronyms [1] - 190:24
act [3] - 13:17, 59:18, 203:22
acting [1] - 203:21
actions [1] - 106:14
active [2] - 68:3, 140:6
actively [3] - 31:21, 32:4, 83:18
activity [1] - 122:18
actual [7] - 119:8, 179:6, 194:1, 199:8, 200:19, 205:15, 246:3
ad [1] - 25:20
Adam [4] - 1:14, 35:24, 36:15, 107:22
adapted [1] - 222:18
add [5] - 58:23, 71:14, 155:7, 223:11, 223:15
added [7] - 87:2, 202:12, 206:18, 211:16, 217:14, 223:9, 223:10
adding [1] - 58:8
addition [5] - 21:11, 127:2, 173:6, 218:6, 218:15
additional [10] - 78:16, 82:8, 94:6, 118:14, 126:19, 129:8, 202:12, 217:14, 242:7, 249:10
additionally [1] - 241:16
address [9] - 15:15, 19:17, 22:22, 35:2, 58:5, 97:21, 101:18, 103:25, 107:12
addressed [3] - 93:25, 106:9, 177:9
addressing [2] - 14:6, 32:6
adequate [1] - 108:8
adequately [1] - 106:12
adhere [1] - 94:15
adjacent [1] - 76:14
adjusted [1] - 139:8
adjustment [1] - 60:23
adjustments [1] - 222:22
ADLS [47] - 76:25, 77:15, 77:21, 86:1, 86:8, 86:10, 86:12, 86:17, 86:18, 86:23, 87:1, 87:6, 87:11, 89:8, 89:10, 98:24, 99:4, 99:17, 102:4, 102:8, 102:9, 102:11, 104:1, 105:9, 105:15, 105:20, 105:23, 106:2, 106:9, 106:15, 106:18, 106:21, 106:25, 107:9, 107:24, 108:2, 108:18, 109:4, 109:17, 110:7, 204:20, 205:1, 205:22, 205:24, 206:10, 206:12
administered [5] - 29:22, 111:5, 131:16, 170:17, 215:1
administration [2] - 112:3, 171:13
admissible [2] - 56:18, 203:18
admission [3] - 17:12, 17:18, 19:10
admit [2] - 118:2, 126:3
admitted [5] - 16:20, 19:10, 20:23, 54:25, 246:15
admonish [1] - 13:25
adopt [1] - 32:4
adopted [6] - 48:4, 48:10, 49:10, 50:24, 222:14, 228:5
adopting [1] - 49:6
adoption [1] - 50:14
advance [1] - 153:8
adverse [1] - 159:23
adversity [1] - 147:14
advised [1] - 203:24
advisory [1] - 109:11
AEP [1] - 181:18
aerial [8] - 137:13, 137:14, 137:15, 138:5, 145:11, 152:14, 152:24, 165:7
aerospace [1] - 215:15
affect [5] - 66:6, 160:16, 188:6, 190:20, 225:14
affected [6] - 13:3, 37:24, 129:24, 130:2, 198:4, 226:4
Affidavit [5] - 7:21, 10:16, 10:17, 10:18, 10:18
affidavits [1] - 21:20
Affidavits [1] - 7:22
affiliate [2] - 118:25, 120:15
affiliated [1] - 69:19
affiliations [2] - 66:16, 69:18
afford [1] - 161:22
afraid [1] - 176:16
afternoon [6] - 81:22, 154:6, 154:7, 201:4, 201:5, 201:18
ag [6] - 132:25, 146:23, 147:6, 152:17, 155:6,

155:23
agencies [1] - 31:25
Agency [1] - 7:4
agent [3] - 30:12, 36:15, 216:10
agents [3] - 66:17, 69:21, 216:6
Aggregate [1] - 8:9
aggressive [1] - 57:9
ago [4] - 28:15, 61:3, 149:5, 188:11
agree [19] - 17:23, 18:15, 18:20, 21:5, 22:7, 39:19, 46:18, 47:4, 47:16, 49:12, 50:5, 61:11, 61:24, 84:15, 88:4, 136:10, 163:25, 164:4, 239:9
agreeable [4] - 22:4, 59:23, 121:15, 122:5
agreed [9] - 17:12, 18:21, 18:23, 20:3, 20:15, 21:10, 21:24, 151:19, 246:17
Agreement [6] - 8:23, 10:16, 38:4, 39:3, 45:14, 45:16
agreement [55] - 15:16, 33:7, 33:10, 33:16, 33:20, 34:2, 34:3, 34:7, 34:19, 35:5, 35:6, 35:9, 35:19, 36:19, 37:13, 40:6, 40:12, 40:16, 40:17, 40:23, 41:5, 41:12, 41:16, 41:18, 42:11, 42:24, 43:1, 43:4, 43:21, 44:2, 44:16, 45:12, 45:13, 45:17, 45:24, 46:7, 54:15, 63:19, 78:8, 78:9, 85:17, 103:6, 114:4, 116:7, 118:15, 120:11, 122:4, 127:3, 127:9, 153:5, 153:8
agreements [16] - 33:23, 33:24, 35:14, 36:12, 42:5, 42:6, 42:7, 42:15, 42:20, 42:23, 44:20, 45:18, 78:2, 78:7, 78:22, 102:21
agrees [3] - 22:10, 236:17, 237:1
agricultural [3] - 134:17, 142:3, 158:9
agriculture [1] - 152:11
ahead [2] - 168:12, 249:19
Air [2] - 75:19, 111:25
air [6] - 28:8, 122:16, 122:20, 222:24, 223:14, 231:20
Aircraft [1] - 205:1
aircraft [3] - 183:21, 205:3, 205:17
airport [1] - 108:5
Airspace [1] - 76:5
Al [4] - 105:1, 125:18, 146:15, 194:19
alarm [1] - 212:9
alarming [1] - 212:18
alert [1] - 104:4
alignment [3] - 239:14, 248:2, 248:10
alive [1] - 81:13
allegation [1] - 153:16
allegations [4] - 150:17, 150:18, 150:21, 155:10
Allen [3] - 1:21, 17:1, 18:15
allocate [1] - 86:20
allow [6] - 21:1, 21:11, 43:4, 43:5, 93:23, 103:23
allowance [1] - 24:15
allowed [9] - 14:24, 53:8, 79:16, 198:15, 198:22, 198:24, 202:19, 202:20
Alt [11] - 75:25, 77:19, 80:15, 81:1, 81:5, 90:23, 91:2, 98:19, 98:20, 98:21, 220:9
Alternate [1] - 10:5
alternate [4] - 81:2, 217:21, 219:14
alternates [2] - 80:23, 209:7
alternative [1] - 218:12
Amanda [4] - 1:23, 17:9, 51:21, 246:13
Amber [2] - 1:20, 16:24
ambient [2] - 229:12, 229:17
amended [1] - 24:15
amenities [1] - 161:16
amenity [1] - 147:16
American [2] - 216:5, 230:23
amount [19] - 44:5, 82:15, 82:18, 82:24, 102:5, 119:23, 119:24, 119:25, 156:17, 182:10, 183:1, 185:4, 187:4, 187:8, 187:10, 188:17, 190:10, 192:8, 193:25
amounts [2] - 123:17, 123:19
ample [1] - 99:21
amplification [1] - 227:18
Amy [1] - 10:18
AMY [1] - 5:13
analyses [2] - 216:7, 219:15
Analysis [2] - 9:13, 10:21
analysis [16] - 134:18, 135:4, 135:20, 138:22, 154:10, 154:14, 154:15, 155:13, 155:16, 155:18, 156:4, 158:25, 216:13, 217:22, 217:23, 237:4
analyzing [1] - 140:5
AND [1] - 1:5
angular [1] - 231:23
Annoyance [3] - 8:7, 8:9, 8:14
annoying [1] - 247:12
annual [7] - 45:6, 88:17, 116:12, 116:13, 116:19, 134:10
annually [2] - 119:15, 234:17
answer [53] - 46:20, 54:12, 55:9, 56:10, 57:1, 57:12, 58:4, 60:2, 65:7, 68:16, 68:18, 69:14, 69:24, 74:4, 84:7, 88:25, 97:15, 100:8, 104:20, 109:25, 115:25, 116:18, 118:17, 119:18, 120:18, 125:7, 127:15, 143:14, 146:25, 148:7, 149:20, 158:8, 160:15, 163:8, 166:8, 167:12, 169:16, 176:16, 177:6, 177:11, 177:18, 181:13, 181:16, 185:12, 191:4, 191:7, 191:22, 201:24, 203:9, 211:11, 226:12, 226:14
answered [10] - 43:16, 43:17, 47:4, 62:3, 68:13, 68:15, 70:21, 152:8, 201:4, 239:22
answering [6] - 42:17, 66:11, 84:3, 101:2, 147:23, 191:4
answers [2] - 170:2, 181:19
anticipated [2] - 64:14, 64:19
anyway [2] - 153:4, 161:5
apart [1] - 166:18
apartment [1] - 39:14
apologize [6] - 45:11, 54:7, 95:16, 120:2, 121:3, 181:1
apparent [1] - 25:13
appealed [1] - 13:14
appealing [1] - 161:19
appear [2] - 16:21, 103:17
appearance [1] - 16:19
appearances [1] - 16:14
appeared [2] - 24:5, 165:22
appearing [6] - 1:17, 1:19, 1:20, 1:22, 1:23, 26:9
Appendix [17] - 7:3, 7:4, 7:5, 7:5, 7:6, 7:6, 7:7, 7:8, 7:8, 7:9, 7:9, 7:10, 7:10, 7:11, 7:11, 236:4, 241:20
apple [1] - 95:13
applicable [3] - 12:19, 69:12, 186:15
Applicant [22] - 13:9, 16:4, 33:12, 47:18, 52:14, 55:3, 65:5, 66:18, 69:22, 70:11, 70:14, 73:25, 108:1, 116:14, 118:10, 124:13, 178:2, 195:8, 236:17, 237:1, 240:17
Applicant's [13] - 10:23, 11:3, 11:4, 11:5, 11:8, 66:15, 114:22, 114:25, 117:21, 119:3, 123:8, 124:4, 187:25
APPLICANT'S [7] - 3:2, 4:2, 5:2, 7:2, 8:2, 9:2, 10:2
APPLICATION [1] - 1:4
Application [3] - 7:3, 7:20, 10:17
application [34] - 12:5, 32:14, 47:21, 48:12, 49:4, 49:9, 61:12, 77:3, 79:12, 82:14, 87:16, 94:5, 94:23, 98:24, 99:1, 99:20, 117:8, 124:20, 125:1, 125:3, 128:12, 130:11, 152:19, 152:24, 174:19, 197:15, 197:16, 198:1, 213:14, 236:3, 236:5, 240:18, 241:21, 245:22
application's [1] - 237:3
applications [2] - 73:23, 99:12
applied [6] - 129:3, 217:24, 218:6, 219:1, 219:17, 220:1
apply [6] - 58:22, 58:25, 174:13, 221:23, 223:7, 225:4
appointed [1] - 250:8
Appraisal [1] - 132:15
appraisal [11] - 132:10, 132:17, 133:6, 138:22, 141:5, 154:13, 154:20, 155:16, 155:17, 155:21
appraisals [3] - 133:3, 154:11, 154:16
appraise [1] - 141:6
appraised [1] - 132:24
appraiser [4] - 144:6, 148:10, 152:18, 156:10
appraising [1] - 155:24
appreciable [1] - 247:24
appreciate [4] - 47:24, 67:16, 167:11, 169:9
apprised [1] - 95:19
approach [6] - 156:25, 157:6, 157:13, 157:15, 230:7
approaches [1] - 157:11
appropriate [8] - 13:8, 17:15, 24:25, 25:22, 25:25, 26:12, 26:14,

27:14
appropriately [1] - 151:24
approval [20] - 47:14, 48:10, 48:23, 49:10, 76:25, 77:7, 77:10, 77:14, 99:8, 99:16, 99:22, 105:23, 106:5, 106:17, 108:18, 110:9, 113:5, 197:10, 197:12, 198:25
approvals [2] - 47:11, 47:12
approved [10] - 73:23, 94:22, 99:13, 99:15, 105:12, 108:14, 108:25, 122:3, 233:9, 233:14
approximate [3] - 93:9, 144:9, 212:4
appurtenant [1] - 28:4
April [4] - 77:4, 98:25, 112:24, 130:4
Aquatic [1] - 7:5
Archaeological [1] - 9:21
Architectural [1] - 9:23
area [28] - 12:23, 40:2, 90:17, 92:10, 94:14, 95:3, 101:20, 108:7, 123:21, 134:9, 143:15, 143:17, 153:19, 154:22, 155:2, 155:8, 158:22, 162:1, 162:19, 162:21, 168:21, 203:14, 205:17, 207:21, 228:20, 228:25, 229:1, 229:5
areas [11] - 90:7, 90:8, 122:19, 139:21, 143:19, 157:20, 162:22, 162:23, 163:23, 164:10, 235:11
arguing [2] - 53:10, 53:12
argument [6] - 29:1, 52:25, 185:7, 240:22, 241:14
argumentative [3] - 49:15, 227:2, 227:4
arguments [1] - 241:4
arise [1] - 114:3
arrangement [1] - 201:12
arrangements [1] - 202:25
array [14] - 9:3, 80:3, 80:15, 80:18, 98:20, 99:1, 99:2, 104:18, 172:4, 172:6, 198:25, 209:7, 220:10
Array [1] - 9:22
art [1] - 168:5
articles [1] - 135:4
articulate [2] - 88:24, 190:24
aspect [1] - 148:13
aspects [2] - 111:14, 215:25
assert [1] - 241:23
Assess [1] - 8:22
assessing [1] - 230:8
assessment [3] - 17:24, 124:17, 216:2
Assessment [3] - 7:6, 8:13, 9:24
assessments [3] - 59:21, 216:3, 222:15
assets [6] - 65:5, 65:11, 118:11, 118:19, 118:21
assigned [1] - 117:2
assigning [1] - 172:20
associate [1] - 37:4
associated [11] - 35:13, 37:5, 45:7, 66:18, 67:22, 69:7, 69:21, 102:7, 109:4, 171:9, 180:23
Association [1] - 8:8
associations [3] - 66:17, 66:21, 69:19
assume [10] - 71:11, 109:8, 147:1, 156:24, 177:18, 186:4, 186:15, 188:25, 225:24, 232:13
assumed [3] - 217:16, 217:18, 219:10
assumes [3] - 224:22, 225:17, 225:18
assuming [5] - 85:15, 94:21, 114:6, 115:2, 130:6
assumption [2] - 219:8, 242:1
assumptions [10] - 83:25, 217:8, 217:9, 217:11, 219:1, 219:17, 219:20, 222:19, 222:25, 223:25
Assurance [8] - 236:2, 236:15, 239:1, 239:8, 239:24, 240:1, 240:3, 240:17
assurance [2] - 240:4, 240:6
astonishing [1] - 70:22
atmosphere [1] - 227:15
atmospheric [2] - 217:8, 217:17
attached [5] - 79:21, 151:1, 183:10, 183:13, 250:11
Attachment [9] - 10:13, 10:13, 11:3, 11:4, 11:7, 11:7, 11:8, 11:8, 11:9
attachment [2] - 183:16, 183:18
attachments [12] - 56:13, 56:19, 59:5, 59:8, 59:25, 119:8, 119:10, 178:8, 179:5, 179:7, 179:8, 181:20
attempting [3] - 24:7, 35:2, 40:14
attend [3] - 20:1, 20:7, 21:3
attended [1] - 30:15
attention [3] - 136:2, 221:15, 247:3
attenuation [8] - 217:8, 223:20, 225:10, 226:5, 227:8, 227:13, 231:3
attorney [4] - 13:11, 50:1, 92:15, 178:6
attributable [1] - 122:18
Auburn [1] - 112:3
auctioneer [1] - 14:3
Audible [1] - 8:10
audio [1] - 122:15
auditory [1] - 26:5
August [4] - 63:19, 115:15, 117:17, 121:11
authenticate [1] - 52:10
authority [5] - 25:11, 25:15, 101:12, 101:20, 101:22
automated [1] - 173:2
available [9] - 14:22, 60:17, 62:5, 108:21, 129:16, 179:11, 209:7, 219:10, 235:4
Avenue [2] - 2:3, 12:11
average [4] - 87:9, 87:10, 88:14, 208:14
averse [1] - 153:21
aversion [1] - 144:16
Avian [1] - 7:8
avoid [1] - 165:15
aware [30] - 64:25, 65:13, 80:4, 87:20, 92:13, 106:7, 106:10, 120:6, 145:15, 149:10, 166:20, 169:22, 174:25, 176:10, 192:24, 197:11, 198:3, 198:13, 198:16, 204:17, 221:14, 222:6, 222:9, 227:18, 229:18, 230:2, 231:8, 233:7, 246:4, 246:5
awesome [1] - 121:3
awnings [1] - 37:11
axial [1] - 193:23

B

B.A [1] - 30:16
B2004-01-23B [1] - 10:3
Bachelor [1] - 112:1
bachelor's [2] - 171:11, 215:13
background [2] - 191:6, 191:19
backwards [1] - 181:1
bad [3] - 137:11, 138:18, 167:9
balance [5] - 116:13, 116:19, 193:15, 193:18, 194:1
balanced [2] - 193:20, 193:21
Balleti [2] - 180:17, 183:25
band [1] - 191:11
bare [4] - 141:20, 141:24, 143:5
Base [1] - 8:21
base [4] - 23:15, 163:18, 231:18, 232:1
Based [1] - 8:10
based [30] - 13:4, 23:19, 69:3, 77:6, 78:6, 95:21, 100:19, 102:12, 124:15, 143:14, 145:20, 145:22, 157:19, 159:25, 163:8, 178:15, 178:18, 178:23, 193:5, 193:20, 222:7, 222:11, 222:23, 223:12, 226:7, 227:14, 235:2, 246:2, 247:21, 248:6
basement [1] - 14:20
basin [7] - 189:22, 190:3, 190:4, 190:5, 190:9, 190:14
basis [9] - 25:21, 61:17, 62:6, 73:18, 87:13, 88:17, 99:13, 218:24, 225:8
Bat [2] - 7:5, 7:6
bathrooms [1] - 14:23
Baucom [1] - 1:15
Beach [1] - 172:17
beacon [2] - 104:4, 205:16
bear [1] - 207:1
bearing [1] - 193:22
bearings [1] - 194:2
bears [1] - 14:13
become [6] - 13:23, 36:20, 71:15, 81:1, 150:6, 155:5
becomes [4] - 152:22, 154:24, 166:14, 248:4
becoming [1] - 56:22
BEFORE [1] - 1:10
Before-After [1] - 8:5
began [2] - 19:24, 132:9
begin [10] - 12:4, 14:5, 15:9, 16:10, 16:13, 34:20, 57:6, 59:8, 165:5, 249:21
beginning [5] - 14:1, 82:13, 115:12, 119:13, 199:20
behalf [7] - 1:17, 1:19, 1:23, 16:17, 16:21, 159:9, 159:12
behind [3] - 67:23, 69:13, 104:12
bell [1] - 127:18
below [2] - 180:20, 201:19
Bemis [3] - 92:22, 93:6, 123:22
beneficial [1] - 121:19
benefits [6] - 31:15, 31:18, 78:15, 102:22, 155:3, 155:4
Best [2] - 27:7, 27:12
best [8] - 40:20, 76:2,

80:1, 96:19, 97:6, 104:20, 179:10, 179:11
bet [2] - 92:19, 212:15
better [14] - 84:8, 86:5, 90:8, 91:8, 97:21, 99:9, 101:2, 101:18, 123:22, 137:15, 168:23, 183:23, 236:10, 237:10
Between [1] - 8:8
between [17] - 87:14, 100:9, 127:16, 127:21, 130:12, 153:6, 160:13, 172:16, 180:10, 183:2, 188:16, 200:14, 208:1, 208:6, 225:23, 243:24, 245:7
beyond [8] - 22:22, 22:23, 58:12, 113:7, 118:14, 238:15, 248:3, 248:9
bidding [2] - 83:25, 84:2
big [4] - 53:25, 74:25, 153:3, 167:1
bigger [1] - 93:21
biggest [2] - 63:1, 212:25
biggy [1] - 235:24
billion [1] - 132:24
bit [20] - 33:25, 72:18, 76:21, 86:4, 90:10, 90:23, 129:13, 135:19, 165:14, 167:24, 168:24, 174:14, 189:14, 192:5, 194:25, 196:6, 196:15, 223:17, 225:13, 242:13
bite [1] - 95:13
black [2] - 80:8, 97:12
blade [33] - 59:25, 70:21, 71:16, 125:11, 178:4, 179:8, 181:21, 182:16, 182:21, 182:22, 183:13, 185:13, 185:17, 185:22, 186:9, 186:10, 186:12, 188:14, 188:16, 188:20, 188:21, 188:23, 189:3, 193:16, 194:11, 196:9, 202:7, 202:16, 217:7, 218:19, 247:9, 247:22
blades [50] - 55:5, 55:12, 58:2, 58:9, 59:2, 59:12, 59:24, 71:3, 71:4, 71:5, 71:6, 71:10, 72:4, 87:16, 90:16, 119:7, 119:8, 130:9, 137:18, 149:9, 178:8, 178:10, 178:11, 178:14, 179:5, 179:6, 179:10, 179:25, 180:22, 182:13, 182:15, 182:24, 183:9, 183:11, 183:19, 184:1, 185:20, 186:2, 186:19, 187:1, 187:12, 187:13, 187:17, 193:15, 194:1, 194:4, 196:20, 203:12, 248:7
Blattner [8] - 66:20, 67:22, 68:1, 68:5, 68:9, 69:6, 69:10, 69:24
blender [1] - 28:18
blinking [1] - 110:6
block [1] - 138:13
blockage [2] - 219:9, 242:22
blocking [1] - 226:3
blow [2] - 79:25, 212:20
blowing [1] - 219:13
blown [1] - 79:21
blown-up [1] - 79:21
blue [2] - 80:11, 89:20
Board [1] - 132:18
board [3] - 60:23, 132:21
bodies [3] - 13:3, 134:11, 151:9
bombarded [1] - 161:17
Bon [1] - 26:10
bonds [2] - 65:10, 151:12
books [1] - 67:14
border [1] - 85:5
borrow [2] - 23:14, 47:23
bottom [4] - 119:13, 133:25, 236:22, 238:13
bought [2] - 157:13, 157:14
bouncing [1] - 225:20
bound [1] - 148:12
boundaries [2] - 217:10, 218:1
boundary [2] - 23:21, 40:2
bounds [2] - 100:20, 176:4
box [2] - 189:24, 190:13
boy [1] - 244:16
brand [1] - 121:20
break [13] - 39:23, 73:1, 81:12, 81:14, 98:10, 110:21, 110:23, 155:23, 170:11, 182:8, 182:17, 234:25, 249:4
breakdown [1] - 172:15
breakfast [1] - 14:21
breaking [1] - 183:20
BREF [1] - 8:13
Brian [3] - 1:17, 16:17, 55:25
bridges [1] - 19:19
brief [10] - 16:10, 26:25, 29:6, 53:2, 74:16, 92:2, 98:15, 110:3, 150:7, 240:22
briefcase [1] - 23:13
briefly [2] - 105:4, 213:6
bring [6] - 31:14, 56:3, 98:10, 102:22, 104:17, 211:20
bringing [3] - 57:20, 86:21, 153:17
brings [2] - 19:11, 81:10
broad [3] - 34:1, 70:13, 121:25
brochure [1] - 181:12
broker [16] - 140:3, 140:5, 140:17, 140:24, 141:14, 147:20, 148:10, 148:24, 149:6, 150:24, 153:14, 163:11, 169:1, 169:7, 169:17, 169:22
broker's [1] - 169:13
brought [8] - 62:18, 63:16, 123:19, 148:14, 153:23, 200:2, 221:15, 245:4
Brown [1] - 10:22
build [11] - 83:15, 85:16, 94:13, 123:18, 127:8, 142:13, 143:2, 143:5, 143:9, 209:17
Building [2] - 2:3, 12:10
building [21] - 14:25, 15:1, 60:24, 62:20, 66:24, 73:13, 73:15, 73:17, 73:25, 76:15, 94:18, 121:18, 121:19, 121:23, 143:22, 144:12, 195:2, 195:3, 195:8, 204:4, 242:20
buildings [5] - 156:3, 157:5, 219:10, 242:19, 242:23
builds [1] - 188:22
buildup [4] - 188:4, 188:19, 188:21, 189:9
built [5] - 71:4, 72:14, 73:15, 122:7, 187:17
burden [3] - 13:9, 28:3, 241:17
business [16] - 29:25, 30:3, 30:16, 69:20, 111:8, 111:10, 111:23, 112:2, 116:25, 126:4, 131:19, 140:4, 161:12, 170:20, 171:13, 215:4
businesses [1] - 158:6
buy [8] - 145:6, 146:18, 146:20, 146:21, 158:18, 163:19, 211:6, 211:18
buyer [4] - 140:17, 141:7, 141:9, 145:1
buyers [3] - 83:19, 158:17, 165:9
buying [3] - 159:5, 161:20, 211:9
buys [1] - 158:22
BY [31] - 1:4, 29:24, 32:20, 46:17, 52:1, 55:2, 56:11, 73:7, 74:18, 98:17, 104:3, 105:6, 111:7, 113:14, 114:18, 126:2, 131:18, 136:22, 140:11, 146:17, 150:5, 170:19, 173:19, 177:22, 194:21, 196:3, 213:9, 215:3, 220:17, 227:23, 243:23

C

C-1 [1] - 23:22
C-2 [1] - 23:25
cabinet [1] - 205:12
cabinets [1] - 205:10
cables [1] - 208:16
cafe [1] - 14:20
calculated [4] - 56:17, 234:6, 234:8, 241:23
calculates [1] - 234:13
calculation [3] - 223:7, 247:21, 247:22
calculations [1] - 222:22
California [1] - 187:16
calm [1] - 210:7
Canada [1] - 83:12
canceled [1] - 98:8
cannot [5] - 28:17, 36:14, 37:12, 50:3, 71:24
Canton [1] - 16:20
cap [2] - 157:8
capability [1] - 172:9
capable [2] - 230:12, 248:4
capacity [12] - 37:22, 62:13, 90:11, 100:12, 100:13, 101:7, 109:15, 172:21, 210:19, 210:22, 210:24, 230:25
Capital [1] - 75:19
capital [1] - 122:1
capitalize [1] - 90:8
Capitol [4] - 2:3, 12:10, 14:21, 76:4
captioned [1] - 36:6
capture [1] - 190:15
carcinogenic [1] - 178:17
career [1] - 132:11
careful [1] - 169:24
carrier [1] - 176:8
Case [1] - 9:9
case [21] - 9:10, 15:11, 15:25, 16:3, 22:15, 23:11, 25:5, 25:21, 26:1, 26:13, 26:14, 27:15, 28:11, 175:9, 177:1, 187:2, 220:8, 221:11, 225:22, 248:6
case-by-case [1] -

25:21
cases [3] - 108:13, 242:12, 242:14
catastrophic [2] - 190:12, 190:16
catchment [1] - 190:5
category [2] - 213:20, 213:22
caught [1] - 245:4
causes [4] - 135:15, 182:6, 188:20, 212:9
causing [3] - 159:18, 247:10, 248:5
cell [1] - 14:11
cement [1] - 186:11
center [1] - 215:18
Center [2] - 2:3, 12:10
centered [1] - 61:2
central [1] - 133:11
certain [23] - 15:10, 32:24, 37:15, 76:6, 76:7, 76:8, 83:21, 92:6, 94:16, 96:6, 99:5, 108:14, 119:14, 136:9, 136:10, 136:11, 143:19, 145:23, 151:22, 163:4, 168:21, 175:6, 193:5
certainly [10] - 19:23, 44:14, 79:19, 89:14, 92:13, 128:12, 128:14, 129:6, 129:7, 169:1
certainty [2] - 71:25, 82:7
CERTIFICATE [1] - 250:2
certified [1] - 133:5
Certified [2] - 250:6, 250:19
CERTIFY [1] - 250:8
cetera [6] - 66:17, 84:13, 156:16, 185:23, 203:13
chain [1] - 180:10
chains [1] - 181:1
Chair [2] - 99:3, 99:23
Chairman [11] - 12:12, 14:4, 14:12, 23:16, 81:20, 100:23, 104:14, 129:11, 154:5, 154:7, 201:2
CHAIRMAN [76] - 1:11, 1:11, 12:1, 53:7, 81:21, 82:2, 82:11, 82:15, 82:20, 82:24, 83:5, 83:8, 84:3, 84:9, 84:15, 84:21, 85:9, 85:14, 85:18, 85:21, 86:6, 86:12, 86:19, 87:7, 87:10, 87:15, 87:19, 87:23, 88:4, 88:7, 88:18, 88:23, 89:3, 91:23, 96:21, 100:25, 101:6, 101:10, 101:19, 101:22, 101:25, 129:12, 130:5, 130:15, 130:19, 130:23, 154:6, 154:8, 154:10, 154:13, 154:18, 155:15, 156:24, 157:18, 158:24, 159:8, 159:20, 160:3, 161:9, 162:3, 162:9, 162:14, 162:18, 163:8, 163:24, 164:23, 168:13, 168:16, 169:8, 201:3, 201:6, 201:17, 207:4, 241:1, 241:16, 249:19
challenges [1] - 159:10
Champaign [1] - 132:7
Champaign-Urbana [1] - 132:7
chance [4] - 33:1, 77:17, 106:1, 110:22
change [11] - 69:24, 135:15, 148:17, 150:15, 150:16, 167:2, 172:19, 187:22, 244:21, 247:14, 247:19
Change [1] - 9:5
changed [7] - 53:23, 61:5, 75:11, 130:22, 134:1, 175:4, 234:10
changes [17] - 30:23, 50:16, 63:12, 64:5, 64:7, 79:11, 79:13, 79:14, 79:17, 80:19, 87:23, 112:11, 133:23, 171:21, 216:23, 233:10, 233:11
changing [3] - 129:8, 137:22, 247:7
chapter [1] - 132:16
Chapter [3] - 109:11, 110:5, 110:7
character [4] - 137:3, 154:22, 155:3, 227:14
characterize [1] - 226:22
chart [1] - 232:12
chartered [1] - 15:18
chase [1] - 53:17
chasing [2] - 146:23, 159:6
check [9] - 117:11, 117:12, 117:14, 117:16, 125:3, 128:17, 153:22, 157:15, 246:23
check) [1] - 108:4
CHERI [1] - 250:5
Cheri [4] - 1:24, 14:16, 250:17, 250:18
Chicago [1] - 132:16
chief [1] - 15:25
China [1] - 167:2
choice [5] - 23:8, 147:17, 164:7, 168:6, 168:9
choices [1] - 168:4
choose [1] - 90:1
chose [1] - 33:17
Chris [2] - 7:23, 12:13
CHRIS [1] - 1:11
CHRISTENSON [55] - 16:24, 18:10, 22:4, 29:9, 46:17, 49:20, 50:9, 51:6, 51:10, 51:14, 51:20, 52:1, 52:13, 53:10, 54:14, 55:1, 55:2, 55:19, 56:5, 56:11, 58:20, 67:10, 68:21, 69:15, 70:15, 72:24, 103:25, 104:3, 104:25, 114:16, 114:18, 120:22, 120:25, 125:15, 140:9, 140:11, 146:11, 173:17, 173:19, 177:2, 177:14, 177:21, 177:22, 179:21, 180:8, 192:20, 194:17, 214:11, 227:23, 239:25, 240:10, 240:15, 241:12, 241:19, 243:15
Christenson [38] - 1:20, 3:5, 3:7, 3:11, 3:15, 3:19, 4:5, 4:8, 4:12, 4:15, 4:19, 5:4, 5:11, 5:22, 5:23, 6:5, 6:15, 16:23, 16:24, 18:9, 18:21, 22:3, 29:8, 46:15, 49:18, 54:10, 54:13, 68:20, 103:24, 114:15, 127:13, 140:8, 173:16, 214:10, 227:21, 240:7, 248:21, 248:25
CHRISTENSON'S [2] - 10:20, 11:2
Christenson's [6] - 10:23, 18:17, 19:1, 19:5, 196:24, 201:25
CHRISTOPHER [1] - 4:17
Christopher [1] - 10:6
circle [3] - 97:13, 217:20, 242:7
Circuit [2] - 13:15, 86:10
circuits [1] - 90:14
circular [1] - 109:11
circulated [1] - 64:8
circumstances [1] - 114:3
cited [1] - 23:16
claim [2] - 28:6, 92:9
claims [2] - 28:20, 178:6
clarification [4] - 53:11, 127:11, 213:7, 244:20
clarified [1] - 18:13
clarify [20] - 31:2, 44:8, 49:20, 49:23, 50:11, 55:18, 69:1, 76:21, 104:13, 118:7, 118:9, 124:22, 126:24, 152:9, 175:16, 191:13, 193:25, 197:9, 210:3, 211:15
clarifying [4] - 48:14, 51:10, 102:2, 154:2
clarity [1] - 179:19
classified [2] - 78:10, 78:16
clean [2] - 31:17, 162:24
clear [9] - 23:5, 23:15, 64:10, 89:9, 107:3, 109:21, 148:6, 159:21, 167:12
clearcut [1] - 170:2
clearer [1] - 53:13
clearly [7] - 14:14, 43:15, 165:11, 166:13, 169:19, 175:25, 225:9
clears [1] - 208:19
clerical [1] - 134:3
client [1] - 242:9
clients [3] - 23:20, 26:7, 28:5
close [17] - 15:1, 64:23, 90:4, 96:3, 96:13, 99:18, 103:10, 127:22, 136:2, 157:21, 158:1, 160:23, 161:5, 164:2, 164:3, 168:20, 203:2
closed [3] - 15:3, 238:10, 247:7
closely [1] - 24:10
closer [20] - 162:15, 174:5, 190:18, 192:22, 194:25, 197:1, 197:5, 197:7, 197:10, 197:13, 198:5, 198:14, 198:22, 198:24, 199:5, 199:7, 199:15, 200:1, 200:7
closest [2] - 177:4, 207:2
closing [3] - 29:1, 29:5, 241:4
closure [2] - 126:17, 126:18
cluster [1] - 90:24
Co [6] - 9:11, 10:3, 10:4, 131:21, 132:12, 171:8
CO-S-1 [1] - 7:23
CO-S-10 [1] - 8:14
CO-S-11 [1] - 8:16
CO-S-12 [1] - 8:17
CO-S-13 [1] - 8:18
CO-S-14 [1] - 8:19
CO-S-15 [1] - 8:20
CO-S-16 [1] - 8:21
CO-S-2 [1] - 8:3
CO-S-3 [1] - 8:4
CO-S-4 [1] - 8:5
CO-S-5 [1] - 8:7
CO-S-6 [1] - 8:8
CO-S-7 [1] - 8:10
CO-S-8 [1] - 8:12
CO-S-9 [1] - 8:13
coal [1] - 84:13
coat [1] - 163:20
COD [2] - 31:8, 106:15
codified [1] - 28:14
Codified [2] - 12:18, 28:3
Codington [14] - 9:6, 9:7, 9:11, 12:7, 73:11, 73:19, 142:13, 143:2, 143:12, 195:3, 213:19, 217:10,

217:25, 218:7
CODINGTON [1] - 1:5
cold [2] - 201:22, 212:23
coldest [2] - 211:2, 211:21
collateral [4] - 65:11, 65:14, 66:6, 66:7
collection [2] - 43:8, 44:22
collector [1] - 90:13
column [1] - 198:18
combination [3] - 123:25, 223:1, 223:25
comfortable [2] - 162:9, 190:25
coming [22] - 21:21, 28:11, 52:21, 57:8, 58:21, 59:1, 59:15, 64:5, 67:14, 70:7, 90:16, 91:16, 95:22, 107:6, 109:18, 132:20, 149:10, 189:7, 191:25, 202:15, 226:11
commence [1] - 69:8
commencing [1] - 2:5
comment [2] - 135:16, 141:10
comments [3] - 136:7, 162:3, 220:11
commercial [15] - 30:8, 31:3, 57:5, 57:7, 59:8, 59:10, 59:24, 63:21, 77:22, 77:24, 105:21, 111:14, 112:19, 117:23, 133:1
COMMISSION [3] - 1:1, 1:10, 1:13
Commission [42] - 12:3, 12:12, 13:4, 13:8, 13:17, 13:21, 20:14, 21:5, 22:1, 22:9, 22:24, 25:4, 25:10, 26:21, 27:10, 27:11, 27:19, 28:22, 32:11, 48:3, 48:17, 50:2, 53:6, 59:19, 64:10, 81:11, 99:9, 100:16, 100:22, 102:17, 105:7, 106:25, 107:6, 107:8, 107:20, 107:23, 113:6, 117:10, 133:14, 192:16, 240:23, 244:12
Commission's [8] - 12:15, 13:14, 13:19, 15:22, 20:25, 24:22, 25:25, 27:24
Commissioner [40] - 3:6, 3:12, 3:16, 3:20, 4:6, 4:13, 4:16, 4:20, 5:5, 5:7, 5:12, 5:15, 5:17, 5:22, 6:6, 6:9, 6:11, 6:16, 81:19, 89:5, 89:7, 91:20, 92:19, 100:6, 102:3, 103:11, 128:5, 128:7, 128:10, 129:13, 152:6, 165:3, 168:18, 169:10, 202:22, 208:10, 208:19, 210:1, 211:10, 245:11
COMMISSIONER [77] - 1:12, 82:1, 87:9, 89:6, 89:14, 89:17, 89:20, 90:1, 90:18, 91:10, 91:13, 91:18, 91:21, 91:24, 92:8, 92:12, 92:18, 93:1, 93:13, 94:3, 94:8, 95:12, 95:24, 96:12, 96:17, 96:23, 97:8, 97:22, 102:1, 102:10, 102:14, 128:9, 128:11, 129:5, 152:7, 153:9, 154:1, 165:4, 165:12, 165:20, 166:5, 166:17, 167:10, 168:11, 168:15, 169:9, 170:3, 201:18, 201:23, 202:18, 203:11, 203:22, 204:10, 204:18, 205:19, 206:6, 206:13, 206:17, 206:23, 207:12, 207:17, 208:3, 208:9, 208:18, 209:11, 209:19, 209:22, 210:2, 210:12, 210:16, 210:25, 211:8, 211:13, 212:7, 212:12, 212:18, 212:24
Commissioners [2] - 12:13, 29:19
commit [1] - 107:5
commitment [3] - 105:25, 106:23, 107:10
committed [3] - 99:25, 105:21, 106:20
commonly [1] - 222:15
communicate [1] - 204:13
communicated [1] - 172:25
communicates [1] - 20:11
communication [7] - 62:24, 64:5, 64:10, 66:1, 72:1, 172:15, 204:6
communications [1] - 172:24
community [8] - 30:7, 31:16, 32:1, 63:3, 95:22, 137:19, 163:21, 163:22
Comp [3] - 176:8, 176:13, 176:23
companies [3] - 137:17, 153:20, 159:17
Company [3] - 111:15, 112:18, 116:1
company [32] - 29:25, 36:2, 57:2, 60:7, 61:15, 69:20, 70:4, 78:15, 89:23, 93:13, 111:8, 114:9, 116:25, 120:15, 122:11, 122:19, 122:25, 123:4, 131:19, 132:1, 137:17, 145:12, 153:6, 170:20, 197:9, 197:12, 199:24, 203:24, 204:12, 215:4, 246:17
comparables [3] - 144:8, 148:20, 158:25
compare [2] - 187:8, 242:4
compared [1] - 139:11
comparing [1] - 155:15
comparison [2] - 155:18, 157:14
comparisons [1] - 242:6
compendium [1] - 27:9
compensated [1] - 41:3
Compensation [1] - 176:20
compensation [4] - 33:18, 35:13, 43:5, 45:6
competitive [7] - 84:2, 84:11, 84:18, 84:20, 84:22, 85:4, 163:23
competitors [1] - 85:4
compiled [2] - 28:12, 52:3
complaint [1] - 169:7
Complaint [1] - 60:24
complaints [2] - 243:9, 243:12
complete [5] - 64:16, 64:21, 64:22, 185:4, 209:8
completed [11] - 57:4, 59:3, 59:11, 64:15, 64:20, 64:23, 85:12, 112:24, 116:2, 122:19, 122:25
completely [3] - 62:10, 238:23, 247:4
compliance [15] - 30:7, 35:16, 37:7, 37:19, 49:5, 63:2, 85:16, 172:20, 172:21, 172:23, 179:12, 218:14, 218:16, 220:4, 237:25
compliant [5] - 32:2, 47:2, 47:11, 206:10, 206:11
comply [7] - 12:19, 46:18, 47:5, 62:17, 99:25, 100:3, 106:12
component [4] - 174:10, 175:14, 205:12, 205:15
components [4] - 90:15, 201:8, 205:5, 205:18
compound [1] - 39:24
compromise [3] - 193:1, 193:10, 200:11
compromised [1] - 193:3
computer [1] - 229:14
concentrated [1] - 90:21
concept [1] - 192:6
concern [14] - 63:1, 87:15, 134:19, 137:5, 137:20, 137:21, 138:3, 149:9, 151:3, 151:4, 151:9, 153:24, 203:20
concerned [5] - 62:24, 176:14, 182:19, 192:8, 200:21
concerning [4] - 57:1, 69:24, 123:1, 211:19
concerns [4] - 32:7, 94:1, 107:25, 137:13
concise [1] - 92:1
conclude [1] - 110:24
concluded [1] - 126:21
concludes [1] - 136:17
conclusion [10] - 38:1, 39:7, 39:21, 135:22, 136:15, 141:2, 150:9, 159:25, 200:19, 220:11
conclusions [5] - 50:4, 52:7, 135:24, 136:9, 169:25
conclusive [2] - 149:14, 149:20
concrete [2] - 163:1, 224:5
concurrent [1] - 136:16
condemnation [1] - 158:13
condition [9] - 12:22, 59:23, 86:9, 156:13, 174:25, 201:16, 212:4, 246:23, 248:17
Conditional [18] - 7:9, 47:11, 47:15, 48:7, 48:22, 48:24, 48:25, 49:4, 49:11, 49:12, 221:5, 233:8, 233:14, 233:24, 236:1, 237:25, 238:18, 238:25
conditional [4] - 87:20, 141:4, 141:8, 156:19
conditioned [1] - 151:24
Conditions [3] - 8:20, 9:20, 11:16
conditions [10] - 13:6, 85:25, 153:1, 201:9, 201:10, 217:18, 227:15, 231:10, 246:16, 248:16
conduct [5] - 13:18, 44:18, 124:15, 216:7, 228:18
conducted [2] - 217:23, 229:17

conducting [1] - 228:19
confidence [2] - 80:5, 151:17
confident [2] - 99:22, 173:7
confidential [1] - 178:7
Confidential [2] - 7:11, 11:13
confidentially [1] - 173:22
confirm [8] - 21:9, 36:14, 37:12, 50:20, 84:19, 108:8, 229:11, 239:13
confirmed [2] - 140:16, 140:24
conflict [1] - 140:22
conflicting [1] - 181:19
conflicts [1] - 87:20
confuse [1] - 79:15
confused [8] - 72:18, 87:5, 96:2, 96:9, 118:8, 126:5, 128:12, 228:10
confuses [1] - 118:2
confusing [2] - 45:11, 130:7
confusion [5] - 42:21, 44:5, 86:19, 88:16, 118:6
connection [1] - 121:16
connotation [1] - 244:3
conservative [7] - 217:11, 219:1, 219:8, 222:25, 223:25, 241:25, 242:13
consider [5] - 58:12, 62:19, 156:10, 161:10, 222:10
considerable [1] - 31:14
consideration [8] - 13:2, 93:15, 93:17, 93:19, 134:24, 135:6, 144:11, 144:13
considered [8] - 37:22, 45:13, 50:24, 76:11, 78:12, 235:12, 244:3, 248:13
considering [3] - 154:21, 154:22, 210:22
consistent [6] - 48:13, 49:9, 135:24, 200:5, 200:22, 223:4
consists [2] - 172:2, 208:16
constant [1] - 138:16
construct [4] - 95:1, 113:5, 127:6, 178:13
constructability [2] - 209:16
constructed [4] - 84:17, 153:24, 172:7, 184:23
constructing [1] - 68:7
construction [38] - 13:7, 31:19, 57:3, 69:8, 69:11, 74:3, 112:22, 113:1, 113:2, 113:3, 113:6, 116:9, 124:14, 124:16, 124:18, 124:20, 124:24, 125:2, 125:6, 127:1, 127:2, 127:3, 127:14, 127:17, 157:1, 170:23, 171:2, 171:8, 172:13, 172:14, 173:1, 173:4, 194:5, 195:6, 195:13, 195:15, 237:1
constructs [1] - 68:2
construed [1] - 28:11
consultant [1] - 101:15
consultants [4] - 76:4, 99:19, 109:3, 177:10
consulting [4] - 75:19, 131:23, 132:10, 132:13
consume [3] - 210:8, 210:17, 211:4
contact [2] - 184:7, 202:16
contacted [2] - 159:22, 230:5
contain [1] - 190:8
contained [1] - 189:22
containing [1] - 183:3
contemplating [1] - 168:18
contest [1] - 86:10
context [2] - 68:4, 244:21
contingencies [1] - 141:4
contingent [1] - 98:6
continue [1] - 72:15
Continued [8] - 4:1, 5:1, 6:1, 7:1, 8:1, 9:1, 10:1, 11:1
continuing [1] - 241:22
contract [8] - 33:12, 33:15, 33:25, 39:4, 141:3, 141:13, 141:19
contracted [1] - 186:20
contractor [2] - 68:2, 173:1
contractors [1] - 176:23
contributed [2] - 27:16, 132:16
contributing [1] - 220:8
control [3] - 20:12, 205:10, 205:12
controllers [1] - 182:23
controls [1] - 137:4
controversy [1] - 160:12
controvert [1] - 160:12
convenient [1] - 164:6
conversation [1] - 78:1
cooled [1] - 144:7
Cooperative [1] - 10:21
coordinate [8] - 59:19, 60:5, 72:2, 75:23, 95:5, 95:7, 95:18, 95:23
coordinating [1] - 76:24
Coordination [1] - 7:4
coordination [10] - 32:8, 63:22, 65:15, 66:1, 74:24, 75:20, 76:4, 77:8, 127:16, 137:16
copies [4] - 51:7, 51:22, 56:3
copy [3] - 47:23, 51:17, 246:13
corner [5] - 47:19, 48:2, 48:19, 90:22, 237:8
corporation [1] - 131:22
corporations [1] - 69:19
correct [126] - 17:5, 17:16, 17:17, 18:5, 21:22, 31:1, 34:14, 36:13, 36:21, 37:2, 37:3, 38:21, 38:24, 39:5, 40:3, 40:4, 40:18, 41:14, 42:13, 42:14, 46:2, 46:9, 48:8, 48:9, 49:2, 49:3, 51:3, 52:13, 65:23, 67:8, 68:6, 73:9, 73:12, 74:24, 75:1, 75:9, 76:25, 77:1, 78:22, 79:24, 84:5, 85:14, 85:19, 89:24, 101:4, 101:24, 104:6, 104:7, 104:8, 105:12, 105:16, 105:22, 113:17, 113:19, 114:6, 114:10, 116:16, 117:18, 118:18, 120:12, 121:11, 121:12, 124:3, 126:13, 126:23, 127:25, 130:14, 136:23, 141:16, 142:15, 143:6, 144:4, 144:18, 146:9, 150:10, 152:1, 152:3, 154:11, 154:12, 154:17, 162:7, 162:13, 162:16, 162:17, 162:19, 165:18, 169:4, 169:15, 186:13, 196:14, 197:2, 197:6, 197:8, 198:12, 198:19, 203:15, 204:15, 205:22, 205:23, 206:14, 206:16, 208:7, 208:8, 209:20, 209:21, 212:2, 212:15, 214:5, 223:20, 225:3, 225:20, 228:14, 228:15, 229:19, 231:21, 232:2, 232:18, 234:2, 234:14, 235:15, 244:12, 244:18, 244:19, 250:12
Corrected [1] - 10:17
corrected [3] - 31:7, 31:8, 117:13
correction [2] - 30:25, 104:12
corrections [5] - 30:23, 112:11, 133:23, 171:21, 216:23
correctly [9] - 31:3, 43:14, 56:24, 60:21, 115:22, 116:22, 126:7, 126:20, 189:4
correlate [1] - 191:19
correlation [1] - 188:16
Correspondence [1] - 7:4
cost [25] - 85:2, 86:12, 86:14, 86:17, 86:22, 86:24, 87:1, 87:8, 87:11, 89:8, 94:9, 102:4, 102:7, 104:16, 104:22, 121:18, 121:23, 122:1, 129:2, 129:7, 129:19, 157:5, 157:15, 208:15
cost-effective [2] - 121:18, 121:23
costs [4] - 87:2, 104:1, 208:11, 210:7
counsel [8] - 13:17, 16:2, 100:19, 102:20, 103:20, 107:20, 107:23, 148:8
counselors [1] - 132:19
count [2] - 57:9, 57:20
counted [2] - 155:25, 237:18
counties [18] - 24:12, 24:18, 32:4, 49:8, 63:16, 63:17, 63:20, 73:9, 73:21, 87:24, 137:9, 195:3, 195:4, 198:4, 198:9, 218:14, 220:2, 221:7
Counties [3] - 9:6, 12:7, 218:7
COUNTIES [1] - 1:6
countries [1] - 222:14
country [3] - 27:6, 162:23, 164:10
county [27] - 32:3, 37:6, 37:16, 47:21, 47:22, 51:13, 53:1, 62:24, 73:13, 92:23, 93:4, 93:18, 94:15, 179:13, 197:19, 198:13, 199:16, 200:3, 213:11, 213:19, 238:20, 240:14, 240:15, 240:16, 240:24, 241:7
COUNTY [1] - 250:3
County [41] - 7:9,

10:22, 24:19, 26:6, 26:10, 27:18, 28:20, 47:7, 47:14, 47:22, 48:4, 52:3, 52:10, 53:5, 60:23, 117:8, 117:17, 142:13, 143:2, 143:13, 213:19, 214:1, 217:10, 217:19, 217:25, 218:1, 218:6, 221:1, 233:6, 236:1, 236:15, 237:6, 237:12, 237:18, 237:19, 238:8, 238:15, 239:3, 239:10, 239:14
County's [2] - 52:9, 218:16
couple [11] - 107:23, 115:14, 125:22, 126:5, 134:15, 142:4, 152:9, 200:14, 200:18, 208:24, 247:2
course [9] - 25:17, 147:10, 193:6, 210:4, 211:1, 211:19, 212:25, 223:19, 243:6
Court [3] - 13:15, 13:16, 86:10
court [9] - 14:1, 29:22, 51:24, 107:4, 111:5, 131:16, 169:3, 170:17, 215:1
cover [7] - 24:12, 44:3, 91:16, 176:5, 206:19, 224:14, 225:16
coverage [3] - 99:21, 102:13, 108:8
covered [2] - 224:20, 240:22
covering [1] - 73:8
CR1-C10-P [2] - 220:5, 235:7
CR2 [2] - 77:19, 80:15
CR2-98-NP [1] - 249:2
CR2-C98-NP [1] - 249:12
CR226 [1] - 96:7
crane [2] - 86:21, 104:18
crap [1] - 168:2
credit [1] - 219:9
CREMER [142] - 14:4, 15:24, 16:18, 16:23, 17:3, 17:7, 17:11, 17:22, 18:5, 18:9, 18:14, 18:16, 18:19, 18:25, 19:4, 19:7, 19:19, 19:23, 20:19, 21:4, 21:19, 22:2, 22:6, 22:8, 23:4, 26:18, 26:23, 27:2, 28:25, 29:6, 29:11, 29:14, 29:18, 32:18, 38:2, 39:8, 39:19, 42:2, 42:8, 43:18, 44:4, 44:8, 44:14, 46:14, 49:18, 50:5, 51:8, 51:12, 51:15, 51:18, 51:23, 52:11, 52:20, 52:23, 53:17, 54:4, 54:8, 54:12, 54:17, 54:19, 54:21, 54:23, 54:25, 56:9, 68:19, 69:1, 69:14, 73:1, 73:5, 74:13, 79:19, 81:10, 81:17, 89:5, 91:20, 97:25, 98:12, 98:14, 100:15, 100:21, 102:15, 102:25, 103:14, 103:22, 105:2, 107:20, 110:13, 110:16, 110:19, 113:11, 114:15, 125:17, 125:20, 128:4, 128:10, 129:11, 130:25, 131:3, 131:11, 136:19, 140:8, 146:13, 150:2, 152:6, 154:5, 165:3, 168:12, 170:4, 170:6, 170:11, 170:14, 173:12, 173:16, 176:24, 177:3, 177:12, 177:20, 191:3, 191:8, 192:18, 194:18, 194:24, 195:23, 201:2, 210:1, 213:4, 214:7, 214:10, 214:12, 214:14, 214:16, 214:20, 214:23, 220:14, 227:4, 227:20, 240:4, 240:7, 240:13, 240:21, 243:17, 243:19
Cremer [4] - 1:13, 13:17, 13:25, 81:21
criteria [2] - 139:7, 139:8
critical [2] - 172:22, 173:2
Crocker [1] - 133:16
crop [2] - 155:7, 163:14
CROSS [17] - 32:19, 46:16, 73:6, 74:17, 113:13, 114:17, 126:1, 136:21, 140:10, 146:16, 150:4, 173:18, 194:20, 196:2, 220:16, 227:22, 243:22
Cross [37] - 3:4, 3:5, 3:5, 3:6, 3:10, 3:11, 3:11, 3:14, 3:15, 3:15, 3:16, 3:19, 3:19, 3:20, 4:4, 4:5, 4:5, 4:11, 4:12, 4:12, 4:15, 4:18, 4:19, 4:19, 4:20, 5:4, 5:5, 5:11, 5:12, 5:21, 5:22, 6:4, 6:5, 6:5, 6:14, 6:15, 6:15
cross [21] - 13:12, 15:17, 15:23, 16:8, 16:12, 19:19, 20:5, 20:16, 20:23, 21:5, 21:10, 21:22, 21:23, 22:5, 22:10, 32:17, 91:23, 103:19, 113:10, 173:11, 220:13
CROSS-EXAMINATION [17] - 32:19, 46:16, 73:6, 74:17, 113:13, 114:17, 126:1, 136:21, 140:10, 146:16, 150:4, 173:18, 194:20, 196:2, 220:16, 227:22, 243:22
Cross-Examination [37] - 3:4, 3:5, 3:5, 3:6, 3:10, 3:11, 3:11, 3:14, 3:15, 3:15, 3:16, 3:19, 3:19, 3:20, 4:4, 4:5, 4:5, 4:11, 4:12, 4:12, 4:15, 4:18, 4:19, 4:19, 4:20, 5:4, 5:5, 5:11, 5:12, 5:21, 5:22, 6:4, 6:5, 6:5, 6:14, 6:15, 6:15
cross-examination [14] - 13:12, 15:17, 16:8, 16:12, 20:5, 20:23, 21:5, 21:10, 21:22, 22:10, 32:17, 113:10, 173:11, 220:13
CROWNED [1] - 1:4
Crowned [177] - 1:17, 7:3, 12:6, 13:9, 15:25, 16:3, 16:15, 16:17, 17:23, 19:1, 19:2, 21:8, 21:10, 22:16, 22:17, 24:8, 24:13, 24:19, 26:6, 28:23, 29:20, 30:5, 30:13, 31:13, 31:16, 31:21, 32:13, 34:15, 36:12, 36:25, 42:2, 48:24, 54:19, 55:5, 55:6, 55:12, 55:13, 56:13, 56:15, 56:20, 56:21, 57:2, 58:3, 58:7, 58:10, 58:14, 58:15, 58:22, 59:2, 59:4, 59:7, 59:12, 59:24, 60:11, 60:25, 62:9, 62:16, 65:7, 65:9, 67:25, 68:3, 68:5, 68:7, 68:23, 69:5, 69:7, 69:11, 69:22, 70:5, 70:11, 70:16, 71:12, 71:14, 71:18, 71:21, 72:6, 72:8, 72:10, 72:13, 72:16, 72:17, 72:19, 72:22, 73:8, 75:14, 77:21, 78:20, 79:12, 93:3, 96:4, 96:25, 97:25, 103:7, 105:19, 105:20, 105:25, 106:11, 106:24, 107:5, 107:8, 110:14, 111:13, 112:17, 112:20, 112:25, 113:4, 113:16, 113:22, 113:25, 115:20, 115:25, 116:18, 116:25, 117:2, 117:13, 117:16, 117:22, 117:24, 118:5, 118:12, 118:16, 118:23, 119:6, 120:11, 120:14, 122:6, 124:14, 124:17, 125:1, 126:4, 126:8, 126:22, 126:25, 127:21, 131:13, 131:14, 131:24, 133:9, 170:4, 170:14, 170:25, 171:2, 171:10, 172:1, 172:10, 172:14, 175:11, 175:12, 178:5, 179:10, 183:8, 186:4, 192:2, 195:18, 206:7, 207:19, 213:5, 214:23, 215:9, 216:7, 217:3, 220:8, 220:21, 220:23, 221:13, 228:18, 228:24, 230:1, 230:7, 234:17, 238:9, 241:21, 243:13
CRR [1] - 1:24
CRW [12] - 7:19, 7:20, 7:21, 9:6, 9:7, 9:8, 9:9, 9:22, 10:7, 10:8, 10:9, 102:22
CRW2 [1] - 130:9
Cultural [2] - 7:11, 9:22
cumulative [2] - 58:6, 58:23
CUP [4] - 53:11, 62:17, 239:15, 240:16
CUPs [5] - 46:19, 46:22, 47:5, 47:6, 62:18
curious [2] - 97:10, 129:18
current [10] - 36:12, 37:13, 38:4, 40:1, 41:8, 46:7, 57:24, 127:3, 233:18, 239:12
Curriculum [2] - 7:23, 9:14
curtailed [3] - 119:20, 119:24, 235:2
curtailing [1] - 119:14
curve [6] - 179:23, 180:12, 180:23, 181:2, 181:10, 193:12
curves [1] - 218:20
customer [2] - 57:22, 85:2
cut [3] - 53:17, 151:14, 186:18

D

daily [2] - 120:1, 167:7
Dakota [47] - 1:25, 2:4, 7:6, 12:3, 12:11, 12:18, 16:20, 17:2, 27:17, 28:2, 28:3, 28:12, 30:14, 30:16, 31:15, 43:14, 43:25, 66:19, 69:23, 75:22,

83:15, 83:22, 83:24, 85:3, 88:5, 99:24, 133:4, 133:6, 133:7, 133:12, 133:14, 133:16, 135:1, 135:21, 137:8, 142:4, 154:8, 165:22, 213:1, 215:8, 215:14, 215:24, 235:14, 245:10, 245:13, 250:7, 250:13
DAKOTA [2] - 1:2, 250:1
damages [1] - 159:19
dangerous [1] - 178:12
Darren [2] - 11:12, 11:12
DARREN [1] - 6:13
Daryl [9] - 7:15, 7:15, 8:22, 66:13, 83:3, 98:11, 107:16, 111:4, 111:10
DARYL [1] - 3:9
Data [2] - 67:7, 176:25
data [41] - 41:22, 42:4, 46:20, 47:4, 55:2, 55:8, 56:16, 58:18, 60:4, 60:7, 62:16, 64:13, 64:18, 65:4, 69:4, 69:16, 70:10, 97:16, 114:22, 115:1, 116:11, 120:24, 124:4, 125:8, 127:12, 127:13, 140:19, 159:3, 178:2, 178:21, 184:13, 217:6, 217:7, 217:15, 218:21, 229:6, 229:8, 230:18, 230:20
date [17] - 12:8, 30:8, 31:3, 47:14, 47:16, 48:4, 48:17, 48:18, 49:10, 67:18, 69:3, 77:23, 105:22, 112:19, 113:2, 117:24, 249:20
dated [3] - 52:3, 109:12, 135:11
Dated [1] - 250:13
Dates [1] - 7:4
dates [5] - 48:14, 50:10, 60:16, 184:15, 233:12
daughters [1] - 247:11
DAVID [2] - 5:20, 6:3
David [3] - 11:14, 11:15, 135:11
days [7] - 28:14, 48:7, 48:21, 77:10, 95:15, 153:8, 247:2
dBA [18] - 23:22, 24:16, 24:24, 25:21, 25:24, 139:5, 139:14, 139:20, 146:2, 161:4, 190:21, 223:9, 223:12, 225:5, 225:8, 225:14, 231:17
dBC [1] - 190:21
DE [6] - 107:22, 108:10, 108:17, 109:7, 109:16, 110:11
de [3] - 1:14, 107:23, 138:17
dead [1] - 249:20
deal [6] - 24:7, 36:25, 39:13, 40:14, 114:5, 163:7
dealing [5] - 24:9, 34:16, 40:8, 45:22, 161:7
deals [1] - 196:4
decade [1] - 31:22
December [8] - 47:15, 48:5, 48:6, 50:15, 109:12, 179:19, 233:8, 249:17
decibels [8] - 217:14, 217:25, 218:1, 218:2, 218:4, 218:5, 218:8, 223:16
decide [6] - 13:5, 44:1, 112:25, 153:3, 209:3, 247:22
decided [1] - 209:9
decides [1] - 103:5
decimal [1] - 185:18
decision [10] - 13:14, 62:22, 63:21, 107:7, 114:7, 114:8, 148:24, 160:2, 167:20, 192:3
decisions [1] - 126:22
decline [1] - 158:11
decommissioned [1] - 72:4
Decommissioning [1] - 7:11
decommissioning [7] - 70:24, 71:24, 134:21, 137:7, 151:2, 151:3, 151:8
deemed [1] - 26:14
deep [1] - 151:14
default [2] - 106:3, 106:12
defer [19] - 60:19, 62:23, 63:21, 66:9, 74:4, 74:10, 112:21, 113:2, 113:6, 119:21, 120:2, 122:21, 123:3, 123:7, 123:18, 148:7, 192:15, 209:14
deferment [1] - 62:19
deferral [4] - 9:4, 80:4, 90:20, 111:16
deferred [8] - 80:7, 98:21, 113:1, 172:6, 208:23, 208:25, 209:2, 209:8
define [1] - 240:19
definitely [4] - 57:18, 108:4, 157:10, 204:16
definitive [2] - 128:21, 130:4
defragmented [2] - 202:7, 202:16
defragmenting [1] - 203:12
degree [3] - 171:11, 171:13, 215:13
degrees [2] - 219:19, 219:21
delaminates [1] - 194:11
delay [2] - 63:20, 115:16
delayed [2] - 57:21, 130:1
delays [1] - 61:14
delegated [3] - 24:18, 25:10, 91:5
delegation [1] - 25:15
deliver [2] - 88:9, 172:11
delivery [3] - 57:22, 72:4, 90:15
demand [2] - 164:22, 212:4
demographic [1] - 134:19
demonstrated [1] - 223:2
demonstrates [2] - 24:24, 25:3
denial [1] - 105:17
denied [2] - 13:5, 106:25
denser [2] - 154:24, 164:10
density [1] - 137:21
deny [3] - 105:14, 106:2, 107:8
dependent [3] - 82:6, 85:18, 106:18
depicting [2] - 9:3, 234:18
depreciation [2] - 157:1, 157:17
describe [6] - 89:9, 117:9, 190:6, 228:2, 230:19, 247:13
described [2] - 180:13, 181:5
describes [1] - 28:3
describing [1] - 43:21
design [11] - 91:4, 111:21, 171:6, 176:13, 178:13, 193:9, 215:16, 216:2, 216:9, 216:12, 228:8
designated [1] - 61:18
designation [2] - 120:10, 132:14
designed [6] - 32:2, 137:5, 190:5, 190:14, 190:15, 193:5
designer [1] - 26:11
designs [1] - 205:6
desire [1] - 159:9
desired [1] - 63:3
destination [1] - 225:7
detailed [1] - 32:8
details [1] - 249:10
detected [3] - 188:4, 189:9, 205:17
detecting [1] - 205:2
Detection [1] - 205:2
detects [1] - 196:9
determination [5] - 25:11, 75:15, 77:13, 77:18, 220:22
determinations [1] - 75:8
determine [4] - 44:1, 45:10, 121:14, 241:6
determined [5] - 61:7, 172:15, 202:5, 203:10, 249:19
determining [1] - 207:25
DEUEL [1] - 1:6
Deuel [21] - 9:6, 9:7, 10:3, 12:7, 24:14, 24:19, 26:6, 26:10, 27:18, 28:19, 47:7, 73:11, 73:19, 133:17, 134:15, 155:1, 195:3, 218:1, 218:7, 221:1, 245:18
develop [1] - 44:17
developed [9] - 31:22, 39:11, 83:22, 93:4, 139:7, 155:5, 186:24, 215:22, 222:17
developer [3] - 30:12, 76:14, 84:25
developers [3] - 33:13, 158:13, 246:6
developing [3] - 61:15, 83:21, 179:23
development [13] - 13:1, 30:3, 30:6, 63:12, 76:12, 76:19, 95:11, 111:11, 111:23, 135:9, 171:2, 187:4, 216:1
develops [1] - 177:18
DH-1 [1] - 7:15
DH-2 [1] - 7:16
DH-S-1 [1] - 8:23
DH-S-2 [1] - 9:3
DH-S-3 [1] - 9:4
diagram [1] - 178:4
dialogue [1] - 163:9
dictate [1] - 175:1
dictates [1] - 175:25
difference [15] - 26:14, 26:17, 74:25, 89:24, 100:8, 100:9, 139:10, 139:15, 225:7, 229:13, 243:24, 244:5, 244:6, 245:7, 245:8
different [30] - 26:8, 33:25, 39:17, 44:16, 46:25, 47:8, 49:25, 53:19, 62:2, 63:7, 71:21, 73:21, 73:22, 73:23, 81:24, 84:9, 154:18, 154:19, 155:13, 180:2, 180:23, 186:8, 191:9, 200:19, 204:24, 224:19, 231:10, 232:10, 238:23
differentiation [1] - 193:16
differently [1] - 196:16
differing [1] - 243:10
differs [1] - 52:15
difficult [6] - 53:14, 83:13, 152:23, 209:16, 209:20, 209:21
difficulty [1] - 53:3
diffused [2] - 248:4,

248:12
digress [1] - 167:24
diligence [2] - 80:22, 216:4
dim [1] - 110:8
DIRECT [5] - 29:23, 111:6, 131:17, 170:18, 215:2
direct [16] - 16:5, 30:17, 74:23, 75:4, 83:8, 85:22, 88:8, 100:4, 117:21, 136:18, 148:2, 174:3, 185:3, 187:24, 191:8, 228:1
Direct [27] - 3:4, 3:10, 3:14, 3:18, 4:4, 4:6, 4:11, 4:15, 4:18, 5:4, 5:11, 5:14, 5:17, 5:21, 6:4, 6:8, 6:11, 6:14, 7:12, 7:12, 7:13, 7:14, 7:15, 7:16, 112:6, 171:15, 216:14
directed [2] - 234:3, 239:6
direction [1] - 107:7
directions [4] - 218:23, 219:6, 219:25, 231:25
directly [10] - 38:20, 67:25, 89:18, 101:7, 165:5, 165:10, 209:3, 219:13, 226:1, 226:17
director [5] - 111:10, 172:20, 172:21, 173:4, 215:15
discharge [1] - 28:18
discharging [1] - 28:9
disclose [7] - 148:1, 148:12, 166:6, 167:19, 168:3, 168:20, 169:14
disclosed [5] - 148:5, 148:16, 148:17, 148:22, 167:14
disclosing [1] - 165:23
disclosure [7] - 148:25, 165:16, 165:21, 166:1, 166:3, 166:7, 166:19
disclosures [2] - 165:18, 165:23
disconnect [1] - 200:14
discovered [1] - 169:4
discovery [4] - 32:25, 41:22, 56:18, 176:21
discrepancies [1] - 243:13
discrepancy [1] - 245:1
discretion [1] - 21:1
discuss [5] - 20:13, 74:23, 76:24, 120:16, 239:25
discussed [6] - 78:2, 87:19, 135:7, 149:16, 196:8, 246:19
discussing [4] - 21:17, 33:7, 147:2, 180:1
discussion [5] - 61:1, 105:8, 127:15, 169:25, 213:10
Discussion [1] - 170:10
discussions [2] - 64:4, 127:24
dish [1] - 207:22
dislodged [1] - 202:11
dismantlement [1] - 72:3
display [3] - 73:25, 195:8, 195:15
displayed [4] - 74:8, 74:9, 195:11, 195:12
disposal [3] - 71:6, 125:12, 185:25
dispose [1] - 186:19
disposed [1] - 186:14
disposing [1] - 187:1
distance [25] - 32:5, 93:17, 94:16, 96:6, 173:23, 174:6, 174:18, 174:21, 174:23, 175:1, 175:11, 175:12, 176:10, 177:4, 192:8, 202:10, 202:12, 213:11, 218:8, 231:22, 241:24, 247:23, 248:2, 248:3, 248:6
distances [1] - 93:10
distinction [1] - 206:5
distinguished [1] - 176:2
Distress [1] - 8:8
distributed [2] - 51:25, 180:7
distribution [1] - 111:21
Districts [1] - 93:22
Disturbance [1] - 8:7
divert [1] - 167:23
divided [1] - 144:10
division [1] - 208:12
DK2 [6] - 24:6, 33:1, 33:3, 33:4, 38:5, 46:6
DNH [2] - 75:18, 98:20
DO [1] - 250:8
docket [9] - 62:9, 69:6, 69:10, 173:22, 175:3, 237:5, 237:22, 239:2, 240:12
Docket [3] - 12:2, 12:5, 59:9
document [36] - 14:15, 35:21, 35:24, 36:3, 36:6, 36:18, 38:8, 40:1, 45:25, 46:1, 46:3, 46:5, 46:10, 47:20, 48:3, 50:21, 51:4, 51:6, 51:16, 51:25, 52:2, 53:18, 67:17, 67:20, 74:22, 117:10, 121:1, 122:11, 122:13, 172:22, 173:2, 180:4, 180:5, 180:7, 190:17, 222:6
documents [4] - 20:23, 27:16, 53:20, 116:21
dollars [1] - 104:6
done [20] - 29:3, 34:16, 74:12, 91:22, 122:11, 135:21, 136:8, 136:14, 137:9, 138:14, 142:20, 145:18, 150:18, 150:23, 151:6, 169:17, 214:16, 228:23, 230:2, 246:12
door [3] - 103:9, 103:13, 136:5
doors [1] - 15:3
dots [3] - 80:16, 89:21, 90:21
double [2] - 125:3, 186:6
double-check [1] - 125:3
doubles [1] - 71:14
doubt [2] - 28:21, 55:17
down [23] - 14:22, 23:24, 80:13, 94:10, 96:15, 103:1, 103:12, 103:23, 110:17, 128:13, 131:4, 136:3, 152:21, 153:4, 153:7, 167:11, 170:8, 182:25, 188:24, 208:16, 213:25, 238:13, 246:9
downsize [1] - 121:10
downsized [1] - 63:18
downwind [2] - 217:16, 232:1
DPP [1] - 130:1
DPP2 [3] - 128:21, 128:25, 129:21
DR [5] - 10:23, 11:3, 11:4, 11:5, 11:9
DR(4 [1] - 11:6
draft [1] - 129:21
driven [1] - 136:3
drives [2] - 147:12, 164:18
driveway [1] - 144:12
driving [5] - 134:25, 162:10, 162:11, 164:7, 164:13
drop [3] - 231:21, 234:3, 249:20
Dropped [2] - 7:20, 10:5
dropped [1] - 80:19
dryer [1] - 156:14
due [5] - 13:2, 80:21, 139:4, 151:24, 216:3
duly [1] - 250:8
duly-appointed [1] - 250:8
dump [4] - 71:13, 71:16, 186:5, 186:10
duplicative [1] - 17:19
during [19] - 14:19, 71:4, 92:6, 93:20, 95:2, 124:23, 138:19, 166:24, 172:14, 173:24, 174:8, 175:13, 185:20, 201:8, 201:10, 201:16, 202:2, 212:4, 249:16
duties [1] - 113:21
dwelling [1] - 224:24

E

e-mail [3] - 22:21, 180:10, 181:1
EAPC [2] - 215:7, 215:20
earliest [1] - 235:18
early [3] - 129:17, 130:4, 202:1
earth [1] - 83:14
Easement [3] - 10:16, 45:14, 45:16
easement [30] - 24:2, 24:3, 24:8, 24:11, 28:5, 28:23, 33:21, 34:3, 34:7, 35:7, 35:15, 35:23, 36:12, 36:19, 36:23, 40:10, 40:20, 40:24, 41:4, 41:7, 41:10, 41:14, 43:1, 43:2, 43:7, 44:3, 46:7, 78:21, 122:14
easements [3] - 34:6, 40:18, 44:10
easier [5] - 52:19, 88:13, 199:22, 201:24
east [3] - 155:1, 165:10, 243:1
East [2] - 2:3, 12:10
eastern [2] - 75:22, 133:11
easy [2] - 108:19, 129:12
economic [10] - 12:22, 84:1, 85:4, 135:5, 152:25, 155:3, 155:6, 159:7, 162:21, 162:22
economics [7] - 83:25, 132:8, 134:9, 164:8, 164:13, 164:14, 164:18
edge [10] - 55:5, 55:12, 56:13, 58:2, 58:15, 59:5, 59:25, 179:5, 182:7, 183:10
edges [2] - 119:9, 179:6
edify [1] - 26:21
education [7] - 30:9, 111:18, 132:4, 171:4, 215:11, 228:7, 228:12
educational [1] - 228:4
EDWARDS [7] - 21:23, 150:5, 152:4, 243:21, 243:23, 248:20, 249:18
Edwards [12] - 1:23, 3:16, 4:5, 4:9, 4:12, 4:20, 5:12, 5:21, 5:23, 6:4, 6:6, 17:10
effect [20] - 40:15, 48:25, 49:12, 49:23, 52:4, 52:5, 52:15, 53:15, 77:14, 120:17, 151:18, 191:11, 191:14,

191:16, 191:24, 199:9, 225:20, 233:8, 233:13, 244:6
Effect [1] - 7:10
effective [4] - 48:18, 121:18, 121:23, 225:16
effects [16] - 24:2, 24:3, 24:8, 24:20, 28:24, 37:24, 40:9, 40:24, 41:4, 41:7, 122:14, 122:18, 122:20, 123:6
Effects [5] - 8:4, 8:6, 8:15, 8:16, 9:15
efficiency [1] - 200:9
efficient [2] - 137:14, 152:20
effort [1] - 32:12
efforts [1] - 32:1
Ehlebracht [4] - 10:16, 16:22, 21:15, 221:11
EHLEBRACHT [1] - 5:10
eighth [1] - 133:10
either [11] - 19:16, 29:2, 61:6, 83:2, 133:9, 178:13, 186:21, 188:1, 202:16, 220:18, 229:16
EL18-026 [3] - 24:22, 25:9, 27:4
EL19-027 [3] - 1:4, 12:2, 12:5
elaborate [3] - 99:7, 100:3, 153:15
Electric [2] - 60:12, 180:11
electrical [3] - 112:1, 122:17, 171:11
electricity [3] - 92:4, 201:12, 210:8
electromagnetic [1] - 122:16
elevated [1] - 139:2
elevation [2] - 217:7, 218:21
elevations [1] - 108:6
Elicit [2] - 8:19, 9:19
emanates [1] - 238:15
emanating [1] - 223:13
embargo [1] - 167:2
emergency [1] - 201:15
emission [6] - 92:3, 92:9, 217:14, 217:15, 230:19, 232:10
Emissions [1] - 8:22
emissions [3] - 31:17, 232:6, 232:7
emit [1] - 104:4
emitting [1] - 232:14
empirical [2] - 226:7, 226:8
empirically [1] - 226:11
employ [2] - 124:21, 124:23
employed [5] - 30:11, 36:2, 36:15, 72:21, 111:20
employee [1] - 72:20
employees [1] - 113:22
encapsulate [1] - 109:19
encroaching [1] - 159:18
end [19] - 35:15, 52:5, 64:15, 64:20, 71:2, 71:7, 71:15, 130:3, 146:4, 169:3, 183:22, 185:19, 185:24, 186:16, 187:10, 187:11, 198:17, 224:6
ends [1] - 117:15
energy [13] - 12:6, 31:17, 70:3, 83:10, 84:23, 85:1, 88:9, 111:12, 111:22, 159:16, 180:11, 215:17, 216:2
ENERGY [1] - 1:5
Energy [18] - 30:3, 66:20, 67:22, 68:9, 69:6, 69:10, 69:24, 70:6, 70:13, 70:17, 71:20, 72:21, 72:22, 111:11, 114:1, 170:24, 215:7, 215:20
energy-related [1] - 159:16
enforcement [1] - 22:24
engaged [1] - 132:1
engagement [1] - 32:1
engineer [13] - 161:6, 215:6, 215:17, 215:20, 228:2, 228:4, 228:5, 228:7, 228:10, 228:11, 228:13, 228:14
engineering [11] - 74:3, 90:12, 112:1, 170:22, 170:23, 171:1, 171:7, 171:12, 188:10, 215:13, 215:15
engineers [3] - 184:7, 209:6, 216:10
enhanced [1] - 179:23
enjoyment [1] - 167:5
ensure [7] - 37:18, 47:10, 58:6, 59:19, 106:15, 172:18, 172:24
ensuring [2] - 47:1, 59:10
entails [1] - 228:3
enter [4] - 34:6, 43:3, 44:20, 45:23
entered [2] - 34:18, 54:16
entering [1] - 35:6
entire [9] - 61:17, 102:5, 118:24, 129:7, 132:11, 185:4, 190:10, 205:9, 234:14
entirely [1] - 126:8
entirety [1] - 178:23
entities [4] - 66:17, 69:18, 69:19, 83:6
entitled [2] - 2:2, 250:10
entity [5] - 118:10, 118:12, 118:24, 126:8
environment [1] - 12:21
environmental [4] - 97:17, 97:20, 101:16, 215:18
EPC [1] - 68:1
EPCO [2] - 183:13, 183:15
Epilepsy [2] - 8:17, 8:18
EPOC [2] - 179:23, 182:19
equal [1] - 189:10
equations [1] - 226:9
equipped [1] - 106:16
equipping [1] - 106:21
equivalent [1] - 144:10
erroneous [1] - 221:12
error [7] - 130:7, 134:1, 134:3, 200:20, 200:24, 221:14, 236:24
especially [2] - 14:13, 94:11
essentially [2] - 135:22, 199:24
establish [1] - 176:15
established [3] - 50:10, 120:6, 207:20
estate [13] - 131:22, 131:23, 132:9, 132:10, 132:17, 132:20, 132:22, 136:13, 140:4, 161:12, 164:15, 165:17, 167:8
estates [2] - 132:25, 158:19
estimate [2] - 124:21, 125:1
estimates [2] - 123:12, 129:24
estimating [3] - 157:16, 208:1, 224:2
estimation [1] - 58:1
et [6] - 66:17, 84:13, 156:16, 185:23, 203:13
ethical [1] - 166:15
ethically [1] - 148:12
evaluate [2] - 149:19, 168:10
evaluated [1] - 172:13
evening [2] - 162:12, 245:1
event [3] - 59:18, 145:20, 190:11
everywhere [2] - 27:6, 231:10
evidence [4] - 50:7, 56:18, 149:20, 226:21
Evidence [1] - 8:21
evidentiary [4] - 12:4, 12:16, 13:20, 16:13
exact [10] - 26:10, 28:14, 53:16, 60:8, 93:10, 97:15, 119:20, 211:11, 226:9, 243:4
exactly [8] - 36:14, 36:16, 160:8, 207:7, 223:18, 226:15, 241:10, 247:5
Examination [68] - 3:4, 3:4, 3:5, 3:5, 3:6, 3:7, 3:7, 3:8, 3:10, 3:10, 3:11, 3:11, 3:14, 3:14, 3:15, 3:15, 3:16, 3:18, 3:19, 3:19, 3:20, 3:21, 4:4, 4:4, 4:5, 4:5, 4:6, 4:7, 4:7, 4:8, 4:8, 4:9, 4:11, 4:11, 4:12, 4:12, 4:15, 4:15, 4:18, 4:18, 4:19, 4:19, 4:20, 5:4, 5:4, 5:5, 5:11, 5:11, 5:12, 5:14, 5:17, 5:21, 5:21, 5:22, 5:23, 5:23, 6:4, 6:4, 6:5, 6:5, 6:6, 6:8, 6:11, 6:12, 6:14, 6:14, 6:15, 6:15
EXAMINATION [26] - 29:23, 32:19, 46:16, 73:6, 74:17, 98:16, 104:2, 105:5, 111:6, 113:13, 114:17, 126:1, 131:17, 136:21, 140:10, 146:16, 150:4, 170:18, 173:18, 194:20, 196:2, 213:8, 215:2, 220:16, 227:22, 243:22
examination [15] - 13:12, 15:17, 16:8, 16:12, 20:5, 20:23, 21:5, 21:10, 21:22, 22:10, 32:17, 113:10, 136:18, 173:11, 220:13
Examiner [1] - 13:18
examines [1] - 67:17
example [11] - 24:14, 34:22, 40:15, 41:18, 44:12, 139:14, 203:1, 223:9, 224:6, 225:2, 231:13
examples [3] - 142:24, 143:14, 159:2
excavation [1] - 195:13
exceed [2] - 120:1, 193:9
exceeding [1] - 37:17
except [7] - 17:19, 17:25, 18:3, 91:22, 97:9, 168:22, 241:12
Exception [4] - 47:6, 47:12, 221:1, 221:3
exception [3] - 217:22, 219:15, 220:5
exchange [2] - 40:22, 98:23
excused [3] - 110:18, 170:9, 214:19
exercised [1] - 121:10
exhibit [20] - 18:11, 18:17, 19:3, 20:5, 32:22, 32:23, 42:1,

52:20, 53:13, 54:16, 65:3, 79:20, 79:21, 81:6, 115:5, 119:12, 123:8, 173:21, 179:9, 237:8
Exhibit [98] - 7:13, 7:14, 7:15, 7:16, 7:16, 7:17, 7:17, 7:18, 7:23, 8:3, 8:4, 8:5, 8:7, 8:8, 8:10, 8:12, 8:13, 8:14, 8:16, 8:17, 8:18, 8:19, 8:20, 8:21, 8:23, 9:3, 9:4, 9:6, 9:7, 9:8, 9:9, 9:13, 9:14, 9:14, 9:15, 9:15, 9:17, 9:18, 9:19, 9:21, 9:23, 10:3, 10:4, 10:4, 10:5, 10:7, 10:8, 10:9, 20:8, 23:22, 23:25, 30:18, 30:21, 30:25, 35:22, 38:6, 47:19, 50:13, 52:17, 53:21, 55:1, 55:3, 55:19, 62:15, 64:13, 64:18, 66:15, 70:20, 89:18, 113:15, 114:21, 117:4, 117:21, 119:3, 120:23, 120:24, 123:8, 124:5, 138:21, 171:16, 171:18, 171:19, 177:22, 185:16, 187:25, 189:17, 216:15, 216:16, 216:19, 216:20, 221:17, 228:1, 236:2, 237:7, 241:20, 246:14
exhibited [1] - 237:3
Exhibits [7] - 11:12, 11:12, 11:13, 11:14, 11:14, 30:19, 216:18
EXHIBITS [8] - 7:2, 8:2, 9:2, 10:2, 10:15, 10:20, 11:2, 11:11
exhibits [21] - 17:12, 17:19, 17:24, 19:10, 21:2, 30:17, 30:19, 30:24, 44:9, 56:4, 63:17, 112:6, 112:12, 133:19, 133:24, 171:15, 171:17, 171:22, 216:16, 216:18, 216:24
existing [1] - 78:21
exists [1] - 174:25
expand [1] - 145:3
expect [3] - 124:23, 209:13, 220:6
expected [2] - 12:22, 112:24
expecting [2] - 19:24, 77:10
expects [1] - 75:15
expenses [1] - 157:7
expensive [3] - 84:16, 84:19, 84:23
experience [27] - 26:3, 30:10, 77:6, 111:19, 132:5, 133:7, 134:24, 135:2, 137:8, 148:9, 151:4, 152:18, 156:9, 157:24, 159:25, 160:19, 161:24, 163:10, 171:5, 171:6, 200:8, 202:23, 215:12, 215:21, 215:25, 220:7, 228:16
experienced [1] - 109:1
experiences [3] - 137:10, 137:11, 158:3
expert [12] - 26:2, 101:17, 119:21, 139:16, 152:17, 191:2, 191:9, 191:10, 191:13, 191:21, 191:23, 245:17
expert's [1] - 25:9
experts [2] - 192:7, 192:12
explain [18] - 66:24, 76:1, 79:13, 83:14, 89:11, 93:3, 102:23, 102:24, 116:3, 118:2, 127:20, 144:5, 181:21, 204:20, 204:25, 226:15, 230:17, 247:4
explained [3] - 87:24, 112:19, 190:25
Explanation [1] - 9:4
explanation [5] - 183:4, 184:12, 197:14, 226:24, 245:3
explore [1] - 27:21
Exposure [2] - 8:3, 9:14
express [1] - 141:14
expressed [3] - 75:20, 76:5, 141:15
extended [1] - 42:11
extension [1] - 113:6
extensive [1] - 202:9
extensively [1] - 26:4
extent [7] - 24:21, 40:5, 40:12, 95:11, 95:23, 110:2, 154:23
externalities [1] - 137:1
extra [3] - 206:17, 227:8, 228:12
extremely [1] - 27:7
eyes [1] - 245:4

F

FAA [23] - 74:25, 75:20, 76:25, 77:3, 85:24, 86:8, 98:19, 98:24, 99:4, 99:6, 99:9, 99:16, 105:9, 105:14, 106:1, 106:4, 106:19, 106:25, 107:8, 108:1, 109:11, 206:8
FAA's [2] - 99:12, 109:9
facade [1] - 219:7
face [1] - 85:7
facilitate [1] - 177:16
facilities [9] - 32:8, 84:12, 84:17, 157:22, 162:5, 162:24, 171:10, 174:3
FACILITY [1] - 1:5
facility [12] - 12:7, 12:19, 12:20, 12:23, 12:25, 32:13, 72:11, 88:8, 160:11, 161:25, 211:23, 212:1
facing [1] - 219:13
fact [7] - 84:4, 141:10, 158:4, 193:20, 221:11, 222:23, 223:13
factor [12] - 149:19, 223:19, 223:23, 224:4, 224:22, 225:2, 225:6, 226:19, 226:20, 227:3, 233:1
factors [6] - 13:4, 224:1, 224:18, 226:11, 226:12, 226:14
facts [2] - 49:16, 50:7
failed [2] - 201:20, 201:21
failure [1] - 190:12
failures [2] - 175:15, 185:22
fair [7] - 34:10, 36:22, 59:14, 91:17, 190:3, 226:23, 229:6
fairly [1] - 121:25
fairs [1] - 124:15
fall [1] - 119:22
familiar [19] - 35:23, 36:1, 36:5, 61:23, 61:24, 82:17, 109:9, 109:14, 134:14, 134:15, 143:12, 165:18, 175:10, 197:25, 227:11, 246:16, 248:17, 249:2
families [1] - 120:7
family [6] - 120:8, 120:9, 120:16, 136:2, 185:11
far [21] - 42:22, 59:20, 76:21, 78:5, 93:5, 93:9, 96:7, 104:20, 105:16, 108:25, 154:13, 176:11, 176:13, 182:19, 187:7, 200:20, 206:4, 209:8, 244:15, 246:12, 248:12
farm [29] - 34:6, 111:21, 118:11, 122:18, 137:1, 140:2, 140:18, 140:20, 140:25, 141:1, 141:22, 142:23, 155:24, 156:20, 157:4, 157:10, 159:13, 159:14, 160:5, 160:14, 163:14, 164:3, 164:24, 169:14, 204:8, 205:9, 216:2, 216:9, 229:5
Farm [2] - 10:16, 10:22
farmer [4] - 145:16, 152:13, 153:6, 175:20
farmers [2] - 152:11, 204:8
farmette [2] - 141:23, 142:9
farming [2] - 157:25, 175:20
farmland [2] - 156:25, 203:7
farms [7] - 26:4, 111:23, 147:3, 153:3, 155:25, 216:12, 228:8
Farms [1] - 9:17
fashion [2] - 42:17, 45:15
fast [1] - 107:24
fault [1] - 169:21
favorable [1] - 217:18
feasible [1] - 95:21
feather [1] - 182:21
feathered [1] - 182:24
feathering [1] - 182:21
feature [2] - 137:3, 181:16
features [1] - 189:20
February [5] - 1:8, 2:4, 12:9, 250:11, 250:14
federal [2] - 31:24, 32:3
fee [1] - 156:23
feedback [1] - 246:9
feedlot [2] - 165:7, 165:10
feeds [1] - 165:5
feelings [1] - 157:19
feet [17] - 141:11, 160:20, 160:23, 161:1, 175:4, 208:2, 218:8, 231:19, 231:20, 241:24, 241:25, 242:2, 242:3, 242:4, 242:8
fellows [1] - 191:11
felt [2] - 101:17, 101:18
few [11] - 28:10, 74:15, 74:21, 133:2, 133:11, 146:3, 149:5, 195:25, 204:23, 209:3, 248:10
FFA [1] - 74:24
Fiberglass [3] - 187:12, 187:13, 187:16
FIEGEN [37] - 1:12, 82:1, 91:21, 91:24, 92:8, 92:12, 92:18, 93:1, 93:13, 94:3, 94:8, 95:12, 95:24, 96:12, 96:17, 96:23, 97:8, 97:22, 102:1, 102:10, 102:14, 128:11, 129:5, 152:7, 153:9, 154:1, 168:15, 210:2, 210:12, 210:16,

210:25, 211:8, 211:13, 212:7, 212:12, 212:18, 212:24
Fiegen [6] - 12:13, 91:20, 128:10, 152:6, 210:1, 211:10
Fiegen's [1] - 129:13
field [8] - 172:16, 183:8, 195:16, 223:2, 228:20, 228:22, 229:4, 229:7
Field [1] - 8:5
figure [8] - 73:1, 88:15, 97:23, 151:13, 208:12, 212:13, 245:2, 245:6
figured [1] - 151:11
Figures [1] - 7:3
file [8] - 41:25, 42:7, 42:8, 112:6, 133:18, 169:6, 171:15, 216:14
filed [21] - 16:5, 18:11, 18:17, 18:22, 19:1, 19:3, 19:5, 42:9, 42:16, 45:18, 45:19, 49:4, 49:9, 61:12, 64:11, 69:5, 79:12, 94:5, 98:25, 173:21, 237:8
filing [7] - 49:10, 73:22, 75:18, 75:24, 79:18, 80:3, 97:11
fill [1] - 168:23
filled [1] - 25:20
final [13] - 13:14, 13:23, 16:4, 24:22, 25:2, 53:22, 77:20, 79:4, 79:10, 110:14, 181:16, 200:19, 200:22
Final [2] - 9:6, 9:7
finance [2] - 112:4, 132:7
financial [4] - 82:2, 89:22, 151:9, 216:4
financing [1] - 65:10
fine [10] - 19:16, 19:17, 21:20, 27:20, 50:11, 54:14, 91:17, 121:5, 155:19, 226:25
fingertips [1] - 189:24
fire [2] - 149:9, 162:2
firm [4] - 132:10, 132:13, 215:16, 216:5
First [1] - 11:9
first [32] - 13:25, 25:8, 29:20, 38:13, 60:5, 60:8, 67:8, 71:18, 100:23, 114:22, 115:1, 115:13, 124:4, 128:8, 129:16, 129:17, 148:16, 149:5, 160:4, 160:9, 160:15, 173:20, 180:6, 185:21, 187:15, 196:4, 200:14, 200:18, 241:2, 243:24, 245:6, 247:6
Fish [2] - 88:5, 99:24
fit [1] - 75:24
Fitbit [1] - 81:12
five [7] - 22:14, 26:18, 185:21, 193:17, 215:14, 237:17, 245:20
fix [1] - 161:17
fix-up [1] - 161:17
flag [1] - 23:13
fleet [1] - 61:17
flexibility [2] - 63:11, 63:13
Flicker [6] - 7:9, 8:18, 8:20, 9:7, 9:9, 10:8
flicker [58] - 23:23, 24:1, 24:15, 27:20, 28:1, 35:4, 36:7, 37:1, 37:5, 37:15, 40:9, 40:15, 114:4, 119:15, 119:17, 119:21, 120:17, 122:15, 134:21, 137:6, 138:7, 139:2, 139:6, 139:10, 161:4, 215:10, 216:3, 216:12, 217:4, 218:17, 219:18, 219:21, 220:1, 228:18, 234:13, 234:16, 235:9, 235:12, 235:21, 237:3, 237:4, 237:14, 237:21, 240:20, 243:10, 247:3, 247:5, 247:6, 247:15, 247:18, 247:24, 248:5, 248:11, 248:12, 248:13, 248:17, 249:1
flight [1] - 98:8
flimsy [1] - 27:7
floor [1] - 190:6
floors [1] - 156:15
Florida [2] - 171:8, 171:14
fluctuate [1] - 247:11
folder [2] - 177:23, 237:7
folks [4] - 40:25, 163:25, 203:3, 203:9
follow [18] - 25:14, 41:23, 52:19, 67:21, 88:20, 89:7, 91:8, 91:14, 93:10, 106:7, 109:25, 188:19, 196:23, 198:8, 199:3, 201:25, 203:24, 241:9
follow-up [3] - 91:14, 188:19, 203:24
followed [2] - 16:1, 16:2
following [11] - 2:1, 47:3, 55:17, 81:18, 116:11, 121:21, 126:3, 126:14, 237:16, 240:10, 241:6
food [1] - 131:7
foot [5] - 143:23, 144:1, 144:11, 160:22, 205:11
footprint [14] - 129:8, 134:2, 134:9, 134:12, 140:2, 151:8, 154:21, 155:12, 155:22, 156:6, 159:5, 163:18, 205:9, 238:9
footprints [2] - 139:18, 147:3
FOR [1] - 1:5
Force [1] - 111:25
force [2] - 158:14, 164:14
Ford [3] - 139:19, 145:24, 146:2
forecasting [1] - 221:23
forget [1] - 127:12
forgive [2] - 86:19, 127:11
forks [1] - 215:7
form [10] - 28:5, 31:18, 33:21, 34:25, 42:23, 42:25, 45:7, 45:20, 53:16, 213:7
formal [2] - 22:18, 228:12
former [2] - 41:14, 67:23
formerly [1] - 31:5
forth [4] - 12:17, 23:18, 32:13, 109:10
forward [7] - 50:14, 66:3, 81:11, 88:24, 88:25, 113:1, 151:10
forwarded [1] - 17:22
Foss [2] - 2:3, 12:10
fossil [1] - 92:5
foundation [4] - 17:12, 27:7, 52:14, 193:9
foundations [4] - 151:14, 193:4, 195:7, 200:10
founded [1] - 132:12
four [21] - 80:16, 80:22, 81:1, 81:3, 81:24, 94:25, 95:15, 113:5, 113:7, 133:15, 160:24, 200:22, 205:17, 221:8, 237:5, 237:16, 237:22, 238:7, 238:16, 239:9, 239:12
fourth [11] - 31:2, 31:4, 31:9, 56:22, 57:8, 57:19, 59:1, 59:15, 114:13, 117:5, 205:15
fractional [1] - 223:12
frame [1] - 77:11
frequency [6] - 123:2, 123:6, 230:8, 230:11, 230:14, 230:20
Frequency [6] - 7:18, 8:11, 8:12, 9:16, 9:18, 10:21
frequently [1] - 145:19
Friday [2] - 20:6, 20:10
front [8] - 33:8, 67:3, 88:22, 95:6, 96:1, 123:11, 179:18, 240:14
frontage [1] - 142:5
fudge [3] - 226:19, 226:20, 227:2
fuels [1] - 92:5
fulfill [1] - 122:4
full [8] - 37:7, 38:3, 64:14, 64:19, 71:25, 80:5, 182:4, 182:20
fully [2] - 175:10, 225:24
function [3] - 102:8, 182:14, 188:12
functional [2] - 156:14, 161:25
fund [2] - 115:21, 116:4
funds [2] - 116:24, 117:2
future [7] - 65:16, 76:19, 113:3, 114:12, 123:5, 148:1, 206:18

15

G

gallons [1] - 190:1
Game [2] - 88:5, 99:24
gap [1] - 25:20
garage [2] - 143:22, 144:11
Garry [2] - 10:16, 16:22
GARRY [1] - 5:10
Gary [1] - 12:12
GARY [1] - 1:11
gas [2] - 84:13, 159:17
gather [1] - 114:12
GE [21] - 9:11, 61:17, 172:2, 172:3, 172:5, 172:7, 172:8, 172:10, 173:23, 173:25, 174:6, 174:7, 178:11, 178:19, 179:22, 180:3, 180:11, 184:7, 202:9
gear [4] - 189:24, 190:13, 232:16, 232:22
General [2] - 60:12, 180:11
general [9] - 25:6, 90:17, 108:7, 133:5, 155:3, 192:6, 203:16, 231:8
generally [7] - 145:6, 148:5, 149:18, 157:14, 158:21, 160:20, 249:2
generate [3] - 183:1, 188:15, 242:7
generated [7] - 92:5, 179:25, 182:3, 182:7, 182:12, 188:12, 238:24
generating [9] - 83:11, 84:12, 84:17, 196:21, 210:24, 211:5, 211:23, 211:24
generation [5] - 124:1, 210:18, 210:22, 211:18, 211:21
generator [1] - 83:10
Generator [1] - 8:23

German [2] - 27:18, 28:1
given [14] - 13:2, 56:19, 60:18, 67:5, 68:4, 100:1, 105:25, 106:17, 139:6, 178:10, 186:23, 189:14, 200:2, 229:7
glancing [1] - 225:19
glare [4] - 36:7, 37:1, 37:11, 224:6
goal [3] - 84:25, 181:15
God [1] - 187:15
golf [1] - 147:10
Goodwin [1] - 93:22
gosh [1] - 187:20
governing [5] - 13:3, 48:25, 233:23, 238:4, 238:25
government [1] - 13:3
governments [1] - 31:24
graciously [1] - 177:23
grade [2] - 144:7, 144:9
graduated [1] - 132:6
grand [1] - 215:7
Grand [1] - 9:6
grandkids [1] - 164:21
GRANT [1] - 1:5
grant [4] - 51:14, 73:11, 195:3, 218:3
Grant [31] - 9:7, 10:4, 12:7, 47:14, 47:22, 48:4, 52:2, 52:8, 52:9, 53:5, 60:23, 73:20, 117:7, 117:17, 214:1, 217:19, 218:6, 218:16, 233:6, 236:1, 236:15, 237:6, 237:12, 237:18, 237:19, 238:8, 238:15, 239:3, 239:10, 239:14
granted [5] - 13:5, 13:6, 23:8, 49:13, 106:6
granular [1] - 154:14
gravel [7] - 136:3, 136:11, 139:19, 141:9, 144:20, 146:1, 164:5
gravitate [2] - 162:5, 162:7
gravity [1] - 231:21
gray [1] - 92:10
grazing [1] - 142:6
great [2] - 47:24, 88:18
Greber [6] - 10:18, 20:1, 20:5, 20:21, 21:17, 221:10
Greber's [1] - 21:13
green [3] - 14:7, 80:13, 90:20
greenhouse [1] - 219:3
Greg [2] - 1:14, 140:13
grid [1] - 212:20
grinding [2] - 232:16, 232:22
ground [9] - 189:21, 217:7, 222:7, 222:11, 223:20, 224:4, 224:5, 225:16, 226:5
ground-based [2] - 222:7, 222:11
groups [3] - 159:5, 159:22, 173:1
guarantee [2] - 57:17, 85:10
guaranteeing [3] - 57:5, 57:13, 59:7
guarantees [1] - 151:12
guess [12] - 20:19, 57:16, 81:23, 92:1, 109:22, 117:15, 124:25, 191:4, 199:22, 199:24, 208:19, 243:5
guidance [1] - 231:8
guide [1] - 231:12
Guidelines [1] - 8:11
guidelines [1] - 25:13
guy [1] - 110:22
guys [3] - 95:17, 95:18

H

Habitat [1] - 7:6
Hagie [1] - 152:19
HALEY [1] - 4:3
Haley [13] - 7:12, 9:5, 10:6, 120:4, 120:5, 122:22, 192:12, 214:21, 214:25, 215:6, 220:12, 220:18, 227:24
half [10] - 15:7, 15:8, 97:6, 97:7, 137:23, 142:18, 143:5, 145:23, 208:6, 229:20
half-hour [2] - 15:8, 145:23
halfway [2] - 129:18, 225:23
hall [1] - 14:22
hand [7] - 26:2, 39:25, 47:19, 48:2, 125:13, 160:13, 246:13
handed [1] - 36:16
handy [1] - 121:3
HANSON [75] - 1:11, 12:1, 53:7, 81:21, 82:2, 82:11, 82:15, 82:20, 82:24, 83:5, 83:8, 84:3, 84:9, 84:15, 84:21, 85:9, 85:14, 85:18, 85:21, 86:6, 86:12, 86:19, 87:7, 87:10, 87:15, 87:19, 87:23, 88:4, 88:7, 88:18, 88:23, 89:3, 91:23, 96:21, 100:25, 101:6, 101:10, 101:19, 101:22, 101:25, 129:12, 130:5, 130:15, 130:19, 130:23, 154:6, 154:8, 154:10, 154:13, 154:18, 155:15, 156:24, 157:18, 158:24, 159:8, 159:20, 160:3, 161:9, 162:3, 162:9, 162:14, 162:18, 163:8, 163:24, 164:23, 168:13, 168:16, 169:8, 201:3, 201:6, 201:17, 207:4, 241:1, 241:16, 249:19
Hanson [15] - 12:12, 14:4, 14:12, 81:20, 99:23, 100:23, 102:3, 104:14, 129:11, 154:5, 154:7, 169:10, 201:2, 208:10, 208:20
Hanson's [3] - 89:7, 99:3, 100:7
happy [12] - 41:23, 41:25, 88:21, 95:5, 95:10, 95:23, 104:9, 109:24, 110:10, 158:18, 159:24, 161:15
harbor [6] - 80:11, 80:17, 89:21, 90:3, 184:18, 185:1
harbors [5] - 100:7, 100:10, 100:11, 100:13
hard [5] - 79:25, 103:10, 131:6, 224:5, 225:23
hardship [1] - 37:19
hardware [2] - 180:22, 184:1
harmful [2] - 178:12, 179:2
Hart [12] - 7:15, 7:15, 8:22, 66:13, 83:3, 98:11, 107:16, 111:4, 111:10, 113:15, 114:19, 179:4
HART [1] - 3:9
Hart's [1] - 248:22
Harvest [1] - 245:18
hazard [4] - 75:9, 75:16, 77:14, 77:18
hazards [1] - 106:6
head [5] - 104:13, 109:9, 184:16, 231:18, 233:11
headed [1] - 132:10
health [5] - 12:24, 23:17, 25:12, 25:23, 162:2
Health [5] - 8:9, 8:10, 8:16, 9:15, 9:15
Health-Based [1] - 8:10
hear [8] - 14:8, 14:9, 19:13, 19:17, 153:21, 240:23, 244:4, 246:8
heard [12] - 20:17, 46:25, 47:8, 147:15, 147:18, 147:22, 149:5, 153:13, 175:3, 183:7, 198:9, 246:11
Hearing [2] - 7:22, 13:18
hearing [21] - 12:2, 12:4, 12:9, 12:14, 12:16, 12:17, 13:18, 13:22, 16:13, 17:5, 17:13, 22:23, 52:7, 52:8, 81:17, 131:11, 180:2, 203:15, 240:23, 249:23
hearings [1] - 147:22
heat [1] - 28:9
heated [1] - 144:7
height [23] - 61:2, 61:5, 62:6, 76:7, 89:24, 90:6, 134:22, 160:24, 161:3, 174:1, 174:12, 174:18, 174:21, 176:1, 176:7, 202:2, 204:1, 204:7, 207:20, 218:19, 218:22, 226:2, 226:16
heights [3] - 100:9, 134:8, 217:6
held [2] - 2:2, 35:19
hello [3] - 114:19, 114:20, 227:25
help [14] - 48:1, 55:21, 55:25, 67:6, 90:12, 90:17, 90:25, 122:2, 128:19, 180:22, 199:13, 207:6, 210:20, 210:25
helped [1] - 177:24
helpful [4] - 44:11, 55:10, 76:23, 110:2
helps [4] - 53:12, 85:6, 129:5, 181:10
hence [1] - 174:17
HEREBY [1] - 250:8
Herrington [1] - 173:4
hesitant [1] - 103:9
Hessler [10] - 10:7, 10:8, 10:9, 25:10, 26:3, 26:15, 80:21, 80:24, 217:23, 219:16
HESSLER [1] - 6:3
Hessler's [2] - 27:12, 218:13
HGTV [1] - 161:18
HH [2] - 9:11, 9:11
hi [1] - 227:24
high [10] - 64:4, 89:11, 108:3, 138:19, 140:19, 153:1, 161:25, 164:19, 222:12, 223:13
high-level [1] - 64:4
high-speed [1] - 164:19
higher [11] - 26:13, 37:6, 188:4, 188:5, 189:2, 189:9, 225:11, 232:10, 232:11, 232:24, 242:2
highest [4] - 133:6, 232:5, 232:12, 242:10
highlight [1] - 52:16
highlighted [1] - 50:23
highlights [1] - 50:15
highly [2] - 63:3,

104:11
HILARY [1] - 6:10
Hilary [1] - 11:13
himself [2] - 102:24
hire [1] - 125:2
hired [1] - 160:2
hiring [1] - 124:18
Historical [2] - 9:21, 9:23
historical [1] - 83:20
historically [1] - 77:9
history [1] - 150:22
hit [1] - 167:1
hoc [1] - 25:20
hold [7] - 29:4, 75:18, 94:20, 100:22, 132:14, 133:5, 190:4
holding [2] - 75:24, 190:10
hole [1] - 103:1
home [15] - 23:23, 37:1, 94:13, 94:18, 138:7, 139:1, 140:19, 141:21, 143:2, 143:6, 143:23, 144:2, 145:2, 165:8, 242:16
homes [9] - 24:16, 24:20, 28:19, 88:9, 119:14, 119:16, 140:2, 235:10, 244:22
Homme [1] - 26:10
honest [2] - 176:12, 191:18
honestly [1] - 231:15
hope [3] - 27:21, 36:20, 159:6
hoped [1] - 63:4
hopeful [1] - 105:12
hopefully [1] - 147:7
hoping [1] - 187:10
horizon [2] - 219:19, 219:22
hospitals [1] - 162:15
host [4] - 34:24, 43:7, 43:22, 44:21
hosting [5] - 44:13, 44:23, 45:2, 45:6, 45:25
hot [1] - 212:25
hottest [2] - 211:3, 211:22
hour [7] - 15:8, 139:20, 145:23, 145:25, 146:1
hours [30] - 23:24, 24:16, 25:5, 27:4, 27:20, 88:10, 88:14, 88:17, 119:15, 119:16, 119:23, 119:24, 119:25, 138:9, 138:15, 138:18, 138:19, 139:6, 139:9, 145:23, 161:4, 220:1, 220:7, 235:6, 247:18, 248:10
house [23] - 136:4, 138:11, 138:12, 139:9, 139:13, 141:19, 144:7, 144:9, 144:23, 144:24, 149:4, 150:19, 155:10, 155:11, 156:8, 156:10, 157:16, 164:11, 164:16, 242:20, 242:25, 247:8, 247:17
houses [4] - 156:5, 157:12, 161:20, 168:1
hub [11] - 61:2, 61:5, 62:6, 89:24, 90:6, 100:8, 193:21, 193:22, 217:6, 218:19, 226:2
HUECK [6] - 107:22, 108:10, 108:17, 109:7, 109:16, 110:11
Hueck [2] - 1:14, 107:23
human [1] - 26:5
humans [1] - 26:8
hundreds [2] - 216:10, 230:25
hunters [2] - 202:20, 203:14
hurdles [2] - 109:1, 109:6
hypothetical [4] - 42:16, 42:17, 44:6, 225:5

I

I-1 [1] - 10:16
I-2 [1] - 10:16
I-29 [4] - 96:3, 96:7, 96:8, 96:13
I-3 [1] - 10:17
I-4 [2] - 10:17, 20:9
I-5 [1] - 10:18
I-6 [1] - 10:18
I3 [1] - 35:22
ice [17] - 149:8, 188:4, 188:19, 188:21, 188:22, 189:3, 189:9, 189:11, 196:4, 202:6, 202:11, 202:16, 203:13, 224:6, 229:21, 229:23, 230:2
ID [2] - 9:8, 9:10
idea [6] - 77:6, 86:22, 88:10, 184:4, 243:7, 245:13
ideal [2] - 158:25, 159:1
identified [2] - 221:10, 249:2
identify [5] - 27:14, 34:9, 54:5, 97:18, 107:15
Identify [1] - 8:21
identifying [1] - 220:18
IDSD2 [1] - 136:1
II [108] - 1:4, 1:17, 9:6, 9:7, 9:8, 9:9, 9:22, 12:6, 26:6, 30:5, 31:13, 31:14, 31:16, 31:21, 32:13, 48:24, 55:6, 55:14, 56:15, 56:22, 57:2, 58:8, 58:15, 58:22, 59:7, 60:11, 62:9, 65:9, 68:1, 68:5, 68:7, 68:23, 69:5, 69:7, 69:11, 69:22, 70:5, 70:11, 70:16, 71:12, 71:22, 72:6, 72:8, 72:10, 72:13, 72:16, 72:20, 72:22, 73:8, 78:20, 79:12, 93:3, 96:4, 97:1, 105:19, 105:21, 106:1, 106:24, 107:5, 111:13, 112:17, 112:20, 112:25, 113:4, 113:16, 113:22, 113:25, 115:20, 115:25, 116:18, 117:1, 117:3, 117:14, 117:16, 117:22, 117:24, 118:5, 118:12, 118:16, 119:6, 122:6, 124:15, 125:2, 126:4, 126:8, 126:22, 126:25, 127:21, 131:25, 133:9, 170:25, 171:3, 171:10, 172:1, 186:5, 192:2, 195:18, 206:7, 207:19, 215:9, 216:8, 220:9, 228:19, 228:24, 230:1, 230:7, 238:9, 241:22
II's [3] - 106:12, 107:8, 175:12
II-Alt [1] - 220:9
Illinois [2] - 132:6, 140:4
illustrative [1] - 246:14
imagine [1] - 231:10
immediately [5] - 124:12, 132:9, 137:18, 145:13, 174:17
impact [23] - 35:11, 64:3, 134:4, 135:23, 136:16, 137:2, 138:6, 138:8, 150:10, 150:13, 150:14, 151:24, 152:2, 155:9, 157:22, 160:10, 163:11, 166:21, 168:10, 169:18, 196:14, 196:18
Impact [2] - 8:7, 9:13
impacted [2] - 160:5, 160:14
impacting [2] - 166:10, 166:13
impacts [15] - 34:9, 34:16, 35:1, 35:4, 58:7, 58:23, 80:25, 128:22, 132:2, 134:8, 135:5, 140:5, 159:23, 167:5
impair [2] - 12:24, 23:17
impairment [1] - 25:12
impeachment [1] - 51:9
implement [2] - 205:22, 206:8
implemented [2] - 93:21, 172:19
implication [2] - 27:18, 199:8
implications [2] - 27:21, 199:4
implying [1] - 50:6
important [4] - 14:16, 76:10, 145:8, 161:10
importantly [1] - 64:9
importation [1] - 27:22
imported [1] - 27:17
impossibility [1] - 217:17
impossible [1] - 209:19
improve [1] - 163:15
IN [2] - 1:4, 1:5
incentive [1] - 162:21
Incl [1] - 8:12
inclined [2] - 66:11, 89:12
include [8] - 16:8, 43:9, 126:11, 186:11, 230:19, 233:15, 233:16, 245:19
included [12] - 68:6, 68:10, 76:17, 124:11, 217:22, 218:18, 218:21, 219:14, 233:22, 235:14, 235:16, 245:10
includes [1] - 124:18
Including [1] - 9:16
including [17] - 30:12, 30:13, 111:15, 111:21, 111:23, 121:15, 121:16, 132:25, 133:16, 134:10, 141:4, 141:5, 171:9, 173:1, 216:1, 216:12, 217:6
income [3] - 156:25, 157:6, 157:12
inconsistency [2] - 148:15, 148:21
incorporate [3] - 55:4, 55:11, 58:14
incorporating [2] - 56:12, 58:12
incorporation [1] - 69:20
incorrect [1] - 235:16
incorrectly [1] - 110:1
increase [5] - 32:5, 129:2, 182:25, 190:19, 244:24
increased [6] - 190:20, 191:16, 192:25, 200:8, 200:9, 200:10
indicate [6] - 34:8, 38:12, 75:7, 122:11, 223:22, 234:12
indicated [13] - 22:21, 64:13, 64:18, 78:20, 89:21, 102:23, 105:11, 105:20, 130:11, 130:20, 197:4, 206:24, 207:14

indicates [1] - 223:10
indicating [2] - 96:16, 199:25
indicating) [1] - 177:23
indication [3] - 20:6, 135:23, 136:15
indications [1] - 143:10
indirect [1] - 70:5
individual [6] - 175:17, 176:3, 176:5, 203:20, 208:15, 224:18
individuals [4] - 73:24, 159:16, 179:2, 221:8
industrial [4] - 132:25, 162:19, 162:21, 162:23
industry [9] - 25:4, 27:5, 33:14, 34:1, 137:22, 187:14, 215:21, 222:13, 228:6
infer [3] - 50:3, 86:6, 86:7
inference [1] - 27:19
inferences [2] - 50:3, 53:3
inferring [2] - 49:16, 227:2
influence [2] - 148:12, 156:18
influenced [1] - 154:23
inform [1] - 26:2
Information [1] - 8:21
information [29] - 14:19, 49:21, 50:23, 51:1, 65:17, 70:24, 88:21, 94:6, 97:19, 129:19, 153:10, 153:11, 154:19, 176:16, 178:7, 178:15, 178:18, 178:24, 188:18, 192:11, 192:17, 205:3, 220:20, 220:23, 221:12, 228:23, 232:23, 233:2, 246:7
informed [1] - 204:3
infrasound [5] - 123:2, 123:6, 230:8, 230:11, 230:15
Infrasound [7] - 7:19, 8:11, 8:12, 9:16, 9:17, 9:18, 10:21
infrastructure [15] - 34:24, 43:7, 44:13, 44:21, 45:3, 45:6, 89:10, 136:12, 162:1, 162:25, 163:17, 164:19, 204:4, 204:21, 208:7
inhabitants [5] - 12:22, 12:25, 23:18, 25:12
initial [4] - 79:12, 127:1, 160:21, 173:20
initiate [1] - 123:5
injury [1] - 12:21
Input [1] - 7:22
input [8] - 92:14, 115:15, 218:23, 218:24, 222:25, 229:6, 229:8, 229:14
inputs [3] - 184:9, 217:5, 218:17
inputted [1] - 218:20
inquire [1] - 180:2
inquiry [2] - 44:1, 180:25
inserted [1] - 50:24
inside [4] - 146:22, 146:24, 156:7, 202:18
inspected [1] - 134:12
install [1] - 59:4
installation [2] - 37:10, 87:3
Installations [1] - 8:10
installed [4] - 56:20, 58:2, 59:9, 59:25
installing [1] - 105:23
installment [3] - 58:9, 59:2, 59:11
instance [7] - 91:2, 106:2, 162:6, 174:20, 174:22, 174:23, 232:23
instead [9] - 49:17, 97:13, 107:4, 121:18, 130:10, 130:15, 130:19, 130:21, 241:25
Institute [2] - 112:2, 132:16
institutions [1] - 216:4
insurance [11] - 149:3, 149:6, 149:12, 149:16, 153:11, 153:14, 153:20, 176:8, 176:9, 240:4
insurer [2] - 175:12, 175:22
integrity [2] - 193:11, 199:8
intend [6] - 60:9, 62:10, 71:12, 72:2, 77:21, 123:4
intended [3] - 181:17, 200:12, 222:7
intending [1] - 186:5
intends [2] - 22:21, 112:20
intensity [1] - 247:7
intent [1] - 85:9
intention [4] - 61:13, 62:12, 71:17, 76:18
interaction [1] - 245:20
interchange [1] - 128:24
interchangeably [2] - 243:25, 244:2
Interconnection [1] - 8:23
interconnection [2] - 85:7, 129:14
interest [5] - 39:4, 87:21, 126:15, 126:19, 158:20
interested [1] - 127:8
interesting [3] - 135:17, 147:9, 176:11
interface [1] - 205:13
interfere [1] - 13:1
interference [1] - 122:17
internal [2] - 172:20, 173:2
internally [1] - 192:13
internet [1] - 164:19
interpret [1] - 65:19
interpretation [4] - 33:15, 50:22, 115:22, 143:18
interrogatory [1] - 68:17
interrupt [2] - 23:2, 67:1
intervenor [1] - 16:24
Intervenor [10] - 10:9, 10:12, 11:7, 11:7, 11:8, 11:8, 11:9, 18:1, 20:7, 68:18
Intervenor's [3] - 23:23, 114:25, 244:22
Intervenors [15] - 1:19, 16:1, 16:3, 16:22, 19:25, 23:19, 28:19, 37:23, 65:3, 70:20, 116:12, 120:24, 159:13, 160:7, 178:3
Intervenors' [5] - 11:5, 62:16, 66:15, 114:22, 122:10
INTERVENORS' [2] - 5:9, 10:15
intimately [1] - 165:18
introduce [2] - 24:3, 158:5
introducing [1] - 193:7
invade [1] - 24:20
invalid [1] - 53:1
Inventory [1] - 9:22
investigate [1] - 37:18
investigation [3] - 37:4, 149:7, 153:20
invited [1] - 132:19
involved [8] - 104:11, 132:22, 140:1, 192:9, 198:11, 204:23, 221:19, 226:19
involves [1] - 172:20
Iowa [2] - 149:6, 153:13
IR [1] - 10:12
irrelevant [1] - 63:9
ISO [2] - 221:18, 222:3
issue [22] - 65:10, 94:9, 128:17, 137:12, 138:1, 139:24, 141:11, 148:14, 149:8, 149:11, 153:11, 156:13, 160:25, 163:3, 165:16, 166:15, 167:2, 168:6, 240:13, 246:11
issued [5] - 12:16, 117:12, 117:16, 240:16
issues [26] - 12:17, 58:8, 95:5, 134:16, 134:19, 135:2, 135:8, 141:5, 141:8, 141:12, 141:14, 141:18, 149:13, 149:16, 153:14, 155:10, 156:19, 156:20, 163:7, 172:14, 172:18, 200:2, 203:12, 209:16, 209:17, 240:24
item [2] - 236:11, 236:17
items [2] - 161:10, 165:23
iterate [1] - 241:1
iterative [1] - 49:7
itself [8] - 42:5, 52:21, 160:11, 188:24, 196:10, 205:5, 207:23, 208:15

18

J

J721 [1] - 129:1
J722 [2] - 121:16, 129:15
Jamaica [1] - 171:12
January [12] - 27:8, 30:21, 48:20, 60:22, 64:15, 64:20, 133:20, 135:12, 171:19, 180:2, 181:5, 216:18
Jay [8] - 7:12, 9:5, 10:6, 120:4, 122:22, 214:21, 214:25, 215:6
JAY [1] - 4:3
jetliner [1] - 183:24
jetliner's [1] - 183:22
JH-R-1 [1] - 10:7
JH-R-2 [1] - 10:8
JH-R-3 [1] - 10:9
JH-S-1 [1] - 9:6
JH-S-2 [1] - 9:7
JH-S-3 [1] - 9:8
JH-S-4 [1] - 9:9
job [4] - 84:8, 124:15, 135:18, 137:9
jobs [5] - 31:19, 31:20, 162:22, 162:25, 164:13
Joe [1] - 2:3
joining [2] - 30:15, 111:24
Journal [1] - 132:18
judges [1] - 25:18
July [6] - 30:18, 77:10, 112:7, 171:16, 206:9, 216:14
jump [2] - 78:1, 196:23
jumping [2] - 77:12, 78:19
juncture [2] - 85:11, 129:18
June [2] - 60:15, 184:18
junk [1] - 168:1
Juno [1] - 172:17
jurisdiction [2] - 22:23, 52:12
jurisdictions [1] - 73:22
justify [1] - 104:10

K

Kaitlyn [1] - 1:15
Karen [1] - 13:17
karen [1] - 1:13
Kearney [7] - 11:12, 11:12, 24:5, 32:23, 38:6, 41:21, 46:2
KEARNEY [1] - 6:13
keep [3] - 54:5, 94:5, 163:22
keeping [3] - 95:18, 95:20, 149:3
keys [1] - 97:23
kids [2] - 158:20, 162:6
kind [22] - 34:1, 35:1, 63:25, 79:17, 85:6, 94:4, 96:13, 108:20, 137:4, 138:3, 138:10, 142:10, 145:19, 147:12, 158:18, 165:14, 167:6, 181:25, 183:11, 189:15, 221:24, 236:14
kinds [3] - 25:17, 142:24, 143:10
kitchen [1] - 156:15
kitchens [1] - 161:18
knee [1] - 181:10
knock [3] - 136:4, 193:15, 193:18
knowing [4] - 71:10, 95:21, 186:2, 199:15
knowledge [7] - 40:21, 78:6, 99:6, 127:5, 179:10, 191:6, 191:19
known [2] - 65:12, 123:2
knows [2] - 115:13, 207:7
Kranz [7] - 10:17, 20:7, 20:10, 20:16, 21:17, 24:2, 35:23
Kristen [3] - 1:23, 17:9, 51:21
Kristie [1] - 12:13
KRISTIE [1] - 1:12

L

labor [3] - 124:13, 124:16, 124:18
lack [6] - 55:4, 55:12, 56:12, 58:9, 136:12, 244:20
lake [1] - 147:11
Lake [1] - 93:22
lakes [3] - 97:12, 97:13, 134:15
Lampeter [4] - 7:16, 7:17, 10:10, 192:12
LAMPETER [1] - 4:10
Land [2] - 9:9, 10:4
land [28] - 28:3, 28:4, 28:5, 28:10, 30:12, 34:23, 36:15, 40:10, 41:1, 43:11, 132:8, 132:25, 141:20, 141:24, 142:2, 142:8, 142:15, 143:5, 143:16, 144:13, 146:24, 158:11, 158:16, 159:4, 159:5, 203:8, 217:9, 229:12
landfill [2] - 186:14, 187:9
landfills [4] - 186:20, 186:21, 187:1, 187:5
landowner [10] - 31:19, 33:16, 35:20, 36:17, 36:21, 37:21, 42:25, 78:10, 78:11, 78:13
landowners [20] - 28:6, 31:24, 32:6, 32:9, 33:19, 34:6, 34:19, 39:15, 40:2, 43:4, 45:23, 65:12, 78:16, 78:17, 134:11, 159:9, 202:20, 203:14, 204:6, 204:13
lands [1] - 28:19
language [9] - 28:14, 37:12, 41:15, 43:3, 45:14, 53:13, 65:20, 213:22, 214:3
languish [1] - 163:22
laptop [1] - 55:23
Laretta [2] - 10:17, 20:7
large [8] - 132:25, 133:1, 134:25, 156:23, 158:9, 158:21
larger [4] - 20:11, 90:24, 142:3, 142:23
largest [1] - 83:9
last [20] - 20:6, 64:6, 67:13, 88:7, 109:7, 116:14, 116:20, 117:18, 130:6, 132:21, 133:11, 146:3, 163:24, 187:2, 193:14, 215:19, 228:8, 229:20, 246:7, 247:2
lastly [1] - 100:6
late [9] - 18:11, 18:17, 19:1, 19:3, 19:5, 41:25, 42:9, 195:16, 237:8
late-filed [4] - 18:11, 18:17, 19:3, 237:8
lateral [1] - 193:8
latest [1] - 218:11
law [2] - 27:18, 109:22
Law [2] - 12:18, 28:2
LAWRENCE [1] - 5:20
Lawrence [7] - 11:15, 11:16, 135:11, 135:18, 148:21, 150:23, 159:3
Lawrence's [2] - 148:2, 150:9
Laws [1] - 28:3
laws [5] - 12:19, 28:12, 186:15, 241:2, 241:8
lawsuit [1] - 169:6
lawyer [3] - 150:17, 166:15, 166:18
lawyers [2] - 14:13, 25:17
lay [1] - 229:12
laying [2] - 52:13, 138:4
layout [2] - 172:1, 238:22
lead [2] - 56:17, 168:22
leadership [1] - 132:15
leading [1] - 182:7
leak [4] - 190:7, 190:8, 190:11, 190:16
leaks [1] - 189:21
learn [1] - 226:13
learned [1] - 137:10
lease [9] - 24:4, 38:13, 38:16, 39:11, 39:25, 41:8, 44:25, 46:4, 158:11
Lease [4] - 10:16, 38:4, 39:2, 45:15
leases [2] - 45:8, 63:4
least [6] - 23:7, 36:23, 85:1, 133:15, 199:10, 206:21
leave [3] - 15:6, 168:1, 185:18
lectured [1] - 132:18
left [6] - 47:19, 48:2, 129:23, 151:8, 229:20, 249:22
left-hand [2] - 47:19, 48:2
legal [14] - 37:25, 39:6, 39:20, 49:16, 50:3, 52:7, 52:25, 53:3, 106:11, 148:7, 148:13, 166:12, 240:21
legally [1] - 167:21
legend [1] - 207:15
legislated [1] - 137:5
legislation [1] - 160:25
legislative [1] - 14:20
legislature [3] - 25:13, 106:8, 109:21
less [11] - 84:16, 84:19, 84:23, 90:7, 91:3, 160:22, 187:6, 225:10, 225:13, 243:5, 244:5
lessen [1] - 35:11
lessened [1] - 224:23
Letter [14] - 7:19, 7:20, 7:21, 9:21, 9:23, 236:1, 236:15, 239:1, 239:7, 239:23, 239:25, 240:3, 240:17
Level [3] - 7:8, 9:8, 9:17
level [16] - 24:16, 37:7, 37:16, 45:10, 64:4, 89:11, 101:14, 108:3, 139:17, 151:22, 196:22, 232:11, 232:12, 232:13, 241:23, 242:10
levels [10] - 37:15, 139:3, 179:12, 217:14, 232:5, 232:10, 242:1, 242:3, 244:21, 247:10
leverage [2] - 65:5, 85:6
liability [2] - 69:20, 149:8
liberation [1] - 174:10
license [2] - 133:6, 169:5
licensed [2] - 133:3, 140:3
lied [1] - 168:13
lies [1] - 44:5
Life [1] - 8:13
life [11] - 45:2, 71:2, 71:5, 71:7, 71:15, 185:19, 185:20, 185:24, 186:16, 187:11
lifespan [1] - 92:7
lift [1] - 183:23
light [12] - 14:7, 28:9, 28:17, 104:15, 122:15, 176:15, 205:25, 206:1, 208:16, 247:7, 247:10, 247:12
Light [1] - 171:8
light's [1] - 109:19
lightening [1] - 194:12
Lighting [1] - 205:2
lighting [5] - 102:5, 104:1, 106:4, 109:10, 109:12
lights [16] - 85:23, 104:20, 108:11, 109:18, 110:6, 110:8, 205:3, 205:4, 205:15, 205:20, 205:21, 205:24, 206:3, 206:4, 206:5, 206:9
likely [4] - 74:16, 124:18, 162:7, 169:3
likewise [1] - 139:13
limit [10] - 24:25, 25:3, 25:25, 26:12, 26:13, 119:22, 138:14, 176:4, 220:4, 235:1
limited [6] - 22:14, 69:20, 108:20, 108:24, 109:5, 109:6
limits [4] - 27:23, 217:24, 218:6, 220:1
line [35] - 31:1, 50:25, 52:21, 52:22, 61:20, 61:21, 68:8, 68:22, 69:9, 69:11, 75:14, 77:2, 79:6, 100:18, 108:6, 113:18, 119:6, 119:13, 126:6, 130:8, 140:16, 157:20, 162:4, 167:11, 199:20, 211:16, 221:19, 225:17, 228:2, 228:17, 229:21, 230:22, 231:17, 233:5, 247:25
lines [20] - 47:1, 85:5, 90:13, 97:12, 117:22, 159:17, 160:19, 175:6, 175:7, 189:18, 192:25, 200:6, 200:14, 200:18, 200:22, 232:4,

234:12, 238:14
link [1] - 183:2
lips [1] - 190:6
List [1] - 10:5
list [3] - 66:16, 66:21, 69:18
listed [15] - 31:5, 61:12, 62:10, 66:22, 66:23, 67:22, 94:23, 122:14, 147:25, 148:24, 178:24, 178:25, 198:18, 231:13, 237:5
listen [1] - 240:25
listening [1] - 14:17
listing [2] - 150:22, 169:2
lists [1] - 232:9
lit [1] - 14:7
Literature [1] - 8:16
live [11] - 14:7, 26:8, 93:6, 94:10, 138:10, 144:17, 144:19, 144:20, 157:21, 158:4, 165:10
lives [1] - 39:14
living [4] - 93:16, 149:17, 164:1, 238:7
Living [1] - 8:14
LLC [17] - 1:4, 12:6, 30:4, 68:1, 70:3, 70:5, 70:6, 70:11, 71:21, 71:22, 72:21, 72:23, 117:1, 117:3, 117:14, 117:17, 118:12
LLC's [2] - 7:19, 7:20
LNT [1] - 87:16
LNTE [7] - 56:19, 58:9, 59:2, 59:11, 119:7, 130:9, 179:10
LNTEs [1] - 183:18
load [8] - 193:6, 193:8, 193:23, 194:2, 211:25, 212:4, 212:19, 212:25
load-in [3] - 193:6, 193:23, 194:2
loading [1] - 193:5
loads [3] - 192:25, 200:10, 200:11
loans [1] - 66:7
local [22] - 13:3, 31:15, 31:24, 32:9, 35:17, 72:2, 73:22, 87:19, 124:15, 124:16, 124:17, 124:18, 125:6, 137:9, 143:7, 151:17, 163:20, 186:21, 201:9, 203:3, 203:8, 204:8
locate [3] - 55:10, 158:7, 227:7
located [9] - 24:10, 30:14, 55:17, 80:11, 80:15, 98:21, 203:7, 203:8, 207:14
location [19] - 12:9, 15:20, 74:1, 75:12, 91:4, 93:9, 144:21, 147:12, 161:13, 161:14, 161:15, 161:24, 174:4, 195:9, 207:5, 211:11, 242:8, 249:7
locational [1] - 156:19
locations [14] - 63:10, 63:13, 80:8, 80:9, 80:10, 81:2, 90:2, 99:20, 206:24, 207:2, 217:5, 217:9, 218:18, 218:25
Locations [1] - 10:5
locked [1] - 15:6
logic [1] - 189:7
logical [1] - 188:22
longitudinal [2] - 193:8, 193:23
look [28] - 21:6, 33:22, 41:7, 55:23, 83:20, 86:13, 88:23, 88:25, 97:22, 109:22, 113:15, 132:2, 141:3, 141:25, 144:1, 145:5, 149:12, 157:6, 157:9, 163:1, 168:8, 180:18, 187:20, 208:21, 229:4, 237:10, 241:5, 241:9
looked [22] - 93:14, 134:12, 134:16, 134:19, 136:3, 136:4, 136:5, 136:6, 138:21, 150:22, 150:23, 165:6, 176:12, 183:11, 202:8, 202:10, 231:16, 234:25, 235:5, 244:22, 249:4, 249:14
looking [25] - 35:10, 36:18, 48:1, 90:20, 128:13, 129:7, 134:13, 134:25, 135:4, 135:5, 135:25, 140:12, 144:8, 147:4, 147:15, 148:20, 165:6, 167:12, 183:9, 197:23, 209:1, 219:6, 236:21, 245:21, 249:5
looks [7] - 46:1, 94:8, 96:13, 97:6, 117:11, 129:22, 211:16
lose [1] - 169:5
loss [2] - 116:13, 116:19
loud [1] - 80:1
louder [1] - 232:1
love [1] - 168:8
low [18] - 55:4, 55:12, 56:12, 58:2, 58:15, 59:4, 59:25, 119:9, 123:2, 123:6, 179:4, 183:10, 202:17, 210:6, 230:8, 230:10, 230:14, 230:20
Low [6] - 7:18, 8:11, 8:12, 9:16, 9:18, 10:21
Low-Frequency [2] - 8:12, 9:16
lower [9] - 26:12, 47:19, 48:2, 48:18, 123:1, 137:16, 183:1, 209:12, 209:13
lowering [1] - 179:24
lunch [5] - 14:21, 131:5, 131:10, 234:25, 249:4

M

ma'am [5] - 115:24, 116:5, 116:17, 116:23, 117:19
machine [1] - 196:9
machines [2] - 61:13, 62:12
magnifying [1] - 227:14
MAI [1] - 132:14
mail [3] - 22:21, 180:10, 181:1
main [1] - 217:20
Main [1] - 1:25
maintain [3] - 63:1, 117:25, 168:1
maintenance [5] - 13:7, 31:20, 124:14, 193:2, 203:3
major [5] - 148:2, 205:5, 205:6, 205:12, 205:18
majority [2] - 138:12, 185:2
management [4] - 111:22, 149:13, 171:7, 173:7
manager [6] - 30:3, 60:6, 61:1, 101:12, 170:22, 180:11
managerial [1] - 113:21
managers [1] - 113:24
manner [2] - 227:5, 231:25
manual [7] - 173:25, 174:18, 175:25, 200:23, 231:1, 231:5, 231:16
manuals [1] - 173:21
manufactured [2] - 119:9, 194:8
manufacturer [15] - 174:7, 175:8, 178:16, 178:19, 197:1, 197:8, 197:13, 198:15, 198:22, 198:25, 199:4, 199:11, 203:10, 232:9, 233:3
manufacturer's [7] - 178:3, 190:18, 192:22, 198:5, 199:15, 200:7, 213:11
manufacturers [2] - 205:25, 230:18
manufacturing [2] - 108:20, 215:16
map [8] - 79:17, 89:18, 97:10, 206:24, 207:14, 207:15, 207:16, 238:11
Map [3] - 10:4, 10:13, 10:13
Maps [1] - 9:3
maps [2] - 133:25, 177:18
March [1] - 130:3
margin [1] - 223:15
MARK [1] - 3:17
Mark [24] - 7:13, 7:13, 9:12, 10:11, 60:3, 60:19, 74:4, 74:5, 74:10, 89:12, 89:15, 91:12, 91:15, 98:7, 98:13, 104:11, 104:19, 170:16, 170:22, 177:11, 190:23, 195:20, 201:23
mark [2] - 97:7, 110:21
Mark's [2] - 91:13, 192:11
marked [9] - 35:21, 54:2, 54:6, 54:10, 54:15, 121:2, 133:19, 133:21, 246:14
marked-up [2] - 54:2, 54:10
market [18] - 108:21, 109:5, 128:18, 138:22, 148:23, 154:10, 154:14, 154:15, 155:16, 155:18, 156:25, 157:8, 158:21, 158:25, 161:21, 161:22, 167:1
Market [1] - 9:13
marketing [4] - 83:17, 83:18, 140:1, 166:24
marking [2] - 109:10, 109:12
markup [1] - 53:21
MAROUS [1] - 3:13
MaRous [13] - 9:12, 10:10, 98:7, 131:15, 131:21, 132:12, 136:23, 136:24, 136:25, 149:23, 150:6, 154:6
mass [1] - 61:16
master's [3] - 112:2, 112:4, 171:13
matched [4] - 135:4, 194:6, 194:7, 194:9
matched-pair [1] - 135:4
material [3] - 14:2, 172:23, 178:20
materialize [1] - 76:20
materially [1] - 26:7
materials [2] - 178:13, 179:1
math [1] - 212:8
MATTER [1] - 1:4
matter [13] - 2:2, 12:5, 23:16, 101:16, 103:15, 123:20, 123:23, 137:16, 148:22, 153:5, 243:1, 244:10, 250:10
matters [4] - 13:20, 14:6, 22:22, 159:19
Matthew [2] - 2:2, 12:10
maximum [5] - 182:3, 202:10, 217:13, 223:9, 249:15

McComsey [3] - 1:24, 250:17, 250:18
MCCOMSEY [1] - 250:5
McCunney [1] - 9:13
MCCUNNEY [1] - 4:14
McDonald [2] - 35:24, 36:15
McPherson [1] - 10:22
mean [34] - 40:22, 40:23, 40:24, 43:6, 44:24, 57:10, 57:22, 68:17, 70:1, 70:3, 70:7, 92:10, 99:15, 136:10, 140:25, 141:12, 150:13, 154:25, 157:3, 158:12, 164:6, 164:21, 167:6, 167:11, 167:19, 168:9, 169:6, 186:15, 202:3, 202:4, 221:3, 228:19, 232:7
meaning [1] - 17:13
means [18] - 14:8, 33:17, 34:4, 34:20, 35:6, 40:25, 41:2, 43:9, 53:23, 57:20, 76:1, 89:23, 162:1, 162:2, 204:12, 205:2, 219:3, 226:8
meant [2] - 95:17, 199:14
measurable [1] - 222:21
measure [1] - 37:10
measured [2] - 177:8, 223:4
Measurement [2] - 9:17, 10:21
measurement [4] - 144:6, 144:14, 218:22, 226:13
measurements [1] - 246:3
Measures [2] - 8:4, 8:9
measures [2] - 138:13, 174:16
mechanical [6] - 215:6, 215:13, 215:19, 228:7, 228:9, 228:13
mechanicals [1] - 156:16
mediation [1] - 36:25
medical [1] - 144:22
meet [2] - 139:8, 173:7
meeting [9] - 12:2, 30:7, 31:23, 60:23, 92:14, 115:15, 180:13, 181:4, 181:6
meetings [1] - 229:3
megawatt [39] - 60:11, 60:12, 60:13, 61:2, 62:11, 62:12, 80:9, 80:14, 80:17, 88:17, 91:4, 93:8, 94:14, 95:4, 98:21, 99:2, 100:9, 121:20, 123:13, 123:15, 137:23, 172:1, 172:2, 172:3, 172:4, 172:5, 172:6, 172:7, 172:8, 185:8, 209:6, 209:7, 210:9, 210:13, 210:15, 212:5, 218:12, 220:9
megawatts [50] - 57:4, 62:23, 63:6, 63:22, 80:2, 80:4, 80:7, 82:5, 82:8, 83:11, 84:16, 90:19, 94:4, 94:23, 95:9, 95:14, 95:15, 95:20, 111:16, 112:21, 113:1, 122:4, 122:6, 123:14, 124:24, 126:11, 127:1, 127:4, 127:6, 127:14, 127:17, 128:11, 128:14, 172:11, 172:12, 206:18, 206:22, 208:22, 209:9, 209:10, 209:18, 210:17, 210:18, 210:21, 211:4, 212:9, 212:10, 212:11, 212:13, 212:21
members [1] - 63:3
membership [1] - 132:19
memory [2] - 197:20, 199:19
mention [1] - 221:18
mentioned [8] - 24:2, 145:25, 167:15, 196:13, 197:14, 229:21, 232:8, 246:11
merely [1] - 25:3
met [2] - 139:7, 139:25
Meteorological [2] - 8:19, 9:19
meter [6] - 61:2, 61:5, 62:6, 219:4, 226:2
meters [4] - 222:24, 248:7, 248:8, 248:9
methods [1] - 156:25
mic [1] - 194:25
MICHAEL [1] - 3:13
Michael [5] - 9:12, 10:10, 131:15, 131:21, 149:23
microphone [3] - 96:21, 207:4, 207:13
mics [2] - 14:6, 14:10
middle [2] - 180:20, 224:9
Midwest [2] - 132:23, 135:7
might [22] - 37:23, 114:5, 131:6, 137:24, 139:20, 145:3, 146:2, 147:7, 148:24, 154:18, 160:10, 166:20, 175:17, 176:5, 193:9, 200:19, 224:20, 236:2, 236:21, 246:1, 247:3
mile [2] - 92:23, 97:7
miles [9] - 97:6, 139:20, 145:25, 146:1, 244:18, 245:15, 245:16, 245:20, 245:23
Miles [4] - 1:17, 16:16, 23:13, 55:25
milestones [2] - 116:6, 172:23
millennials [1] - 161:20
million [15] - 71:13, 71:16, 87:13, 87:14, 104:5, 129:4, 129:22, 164:11, 186:5, 186:9, 208:6, 208:12
mind [6] - 77:2, 95:20, 199:18, 231:19, 245:23, 245:24
minimal [4] - 138:20, 193:24, 193:25
minimize [1] - 90:9
minimizes [1] - 90:14
minimum [3] - 125:9, 142:19, 143:4
minimus [1] - 138:17
Minnesota [1] - 122:3
minus [1] - 157:1
minute [2] - 146:4, 234:13
minutes [10] - 22:14, 26:19, 120:1, 170:11, 188:11, 220:7, 234:19, 234:22, 235:22, 249:15
mishaps [1] - 90:14
misinformation [1] - 64:8
MISO [15] - 94:9, 95:19, 111:17, 112:21, 112:23, 113:3, 121:16, 128:14, 128:22, 128:23, 129:23, 129:25, 211:1, 211:20
missed [2] - 154:4, 219:19
missing [1] - 238:1
misstatement [1] - 244:19
misunderstanding [2] - 166:2, 204:22
mitigate [4] - 34:9, 37:11, 37:21, 94:1
mixed [1] - 225:16
MM-S-1 [1] - 9:13
MN-buyout-20186-143575-01 [1] - 11:6
mocked [1] - 50:13
model [20] - 60:9, 60:13, 61:7, 61:8, 217:5, 218:17, 219:17, 222:20, 226:7, 226:8, 226:18, 233:3, 235:12, 242:20, 242:21, 243:10, 245:7, 245:8, 247:20
modeled [3] - 217:19, 243:3, 247:17
modeling [9] - 55:6, 55:13, 217:12, 221:23, 226:9, 229:9, 230:24, 231:3, 233:17
Modeling [2] - 7:8, 7:9
modelled [2] - 10:7, 10:8
models [4] - 185:8, 185:10, 246:2, 246:24
modern [6] - 156:14, 161:16, 161:18, 161:25, 162:24, 163:13
modernization [1] - 164:22
modifications [1] - 13:6
Mogen [2] - 17:3, 17:4
moisture [1] - 227:15
moment [1] - 18:6
money [8] - 35:10, 84:4, 123:23, 153:21, 163:17, 163:19, 163:20, 164:8
monitoring [1] - 215:22
Monitoring [1] - 8:14
Montgomery [1] - 112:3
month [2] - 48:21, 249:16
monthly [1] - 218:24
months [1] - 149:5
monumental [1] - 156:21
moon [1] - 235:12
moral [2] - 148:13, 166:14
Morey [1] - 11:13
MOREY [1] - 6:10
morning [14] - 14:5, 18:23, 74:19, 74:20, 81:22, 81:23, 98:8, 107:22, 162:11, 201:22, 208:5, 208:11, 235:3, 246:22
mortgage [1] - 65:5
mortgages [1] - 66:8
most [15] - 63:11, 64:9, 90:21, 106:5, 161:9, 162:18, 185:22, 206:1, 208:23, 215:25, 216:8, 217:18, 235:10, 242:12, 242:18
motion [1] - 17:14
Motion [6] - 18:1, 19:11, 20:17, 20:22, 21:12, 22:11
mountains [1] - 187:16
move [7] - 17:13, 112:25, 184:11, 192:18, 194:25, 241:14, 248:15
Moved [1] - 7:21
moved [1] - 151:10
moving [5] - 66:3, 94:17, 151:2, 157:19, 241:20
Mower [2] - 122:4, 122:9
MR [130] - 15:16, 16:16, 16:19, 17:1, 17:6, 17:25, 18:8, 18:15, 18:18, 19:2, 19:6, 19:16, 19:21, 19:24, 20:20, 21:9,

21:14, 21:16, 21:18, 22:7, 22:17, 23:12, 26:20, 26:24, 27:3, 29:4, 29:13, 29:21, 29:24, 32:15, 32:20, 37:25, 39:6, 39:10, 39:16, 42:4, 42:10, 42:14, 42:18, 43:15, 43:20, 46:13, 49:15, 49:25, 51:17, 52:6, 52:22, 52:24, 54:20, 54:22, 54:24, 55:16, 67:6, 67:12, 68:11, 68:13, 68:24, 70:9, 73:4, 73:7, 74:12, 79:23, 98:6, 98:13, 98:15, 98:17, 100:14, 100:18, 102:18, 103:3, 103:8, 103:20, 105:1, 107:22, 108:10, 108:17, 109:7, 109:16, 110:2, 110:11, 110:15, 111:4, 111:7, 113:9, 113:14, 114:14, 125:18, 131:2, 131:14, 131:18, 136:17, 136:22, 140:7, 146:15, 146:17, 149:25, 170:5, 170:16, 170:19, 173:10, 173:14, 176:19, 177:7, 177:16, 179:19, 190:23, 192:4, 194:19, 194:21, 195:1, 195:20, 207:10, 213:6, 213:9, 214:6, 214:9, 214:13, 214:21, 214:25, 215:3, 220:12, 220:17, 226:20, 226:22, 227:1, 227:19, 239:18, 240:2, 240:6, 243:18

MS [226] - 14:4, 15:13, 15:24, 16:18, 16:23, 16:24, 17:3, 17:7, 17:9, 17:11, 17:17, 17:22, 18:5, 18:9, 18:10, 18:14, 18:16, 18:19, 18:20, 18:25, 19:4, 19:7, 19:19, 19:23, 20:19, 21:4, 21:19, 21:23, 22:2, 22:4, 22:6, 22:8, 23:4, 26:18, 26:23, 27:2, 28:25, 29:6, 29:9, 29:11, 29:14, 29:16, 29:18, 32:18, 38:2, 39:8, 39:19, 42:2, 42:8, 43:18, 44:4, 44:8, 44:14, 46:14, 46:17, 49:18, 49:20, 50:5, 50:9, 51:6, 51:8, 51:10, 51:12, 51:14, 51:15, 51:18, 51:20, 51:23, 52:1, 52:11, 52:13, 52:20, 52:23, 53:10, 53:17, 54:4, 54:8, 54:12, 54:14, 54:17, 54:18, 54:19, 54:21, 54:23, 54:25, 55:1, 55:2, 55:19, 56:3, 56:5, 56:7, 56:9, 56:11, 58:20, 67:10, 68:19, 68:21, 69:1, 69:14, 69:15, 70:15, 72:24, 73:1, 73:5, 74:13, 74:15, 74:18, 79:19, 81:8, 81:10, 81:17, 89:5, 91:20, 97:25, 98:12, 98:14, 100:15, 100:21, 102:15, 102:25, 103:14, 103:22, 103:25, 104:3, 104:25, 105:2, 105:4, 105:6, 107:18, 107:20, 110:13, 110:16, 110:19, 113:11, 114:15, 114:16, 114:18, 115:12, 120:22, 120:25, 125:15, 125:17, 125:20, 125:22, 126:2, 128:2, 128:4, 128:10, 129:11, 130:25, 131:3, 131:11, 136:19, 140:8, 140:9, 140:11, 146:11, 146:13, 150:2, 150:5, 152:4, 152:6, 154:5, 165:3, 168:12, 170:4, 170:6, 170:11, 170:14, 173:12, 173:16, 173:17, 173:19, 176:24, 177:2, 177:3, 177:12, 177:14, 177:20, 177:21, 177:22, 179:21, 180:8, 191:3, 191:8, 192:18, 192:20, 194:17, 194:18, 194:24, 195:23, 195:25, 196:3, 201:1, 201:2, 210:1, 213:4, 214:7, 214:10, 214:11, 214:12, 214:14, 214:15, 214:16, 214:20, 214:23, 220:14, 227:4, 227:20, 227:23, 239:25, 240:4, 240:7, 240:10, 240:13, 240:15, 240:21, 241:12, 241:19, 243:15, 243:17, 243:19, 243:21, 243:23, 248:20, 249:18

MS1 [1] - 138:22

MT-1 [1] - 7:13

multiple [3] - 43:16, 86:15, 86:18

Murphy [18] - 1:17, 3:4, 3:7, 3:10, 3:18, 3:21, 4:4, 4:6, 4:7, 4:15, 4:18, 16:17, 50:5, 53:11, 67:20, 120:25, 121:1, 239:16

MURPHY [57] - 29:21, 29:24, 32:15, 37:25, 39:6, 39:16, 42:4, 42:14, 43:15, 49:15, 49:25, 51:17, 52:6, 52:22, 52:24, 54:20, 55:16, 67:6, 67:12, 68:11, 68:13, 68:24, 70:9, 79:23, 98:6, 98:13, 98:15, 98:17, 100:14, 103:8, 110:2, 110:15, 111:4, 111:7, 113:9, 131:2, 170:16, 170:19, 173:10, 176:19, 177:7, 177:16, 179:19, 190:23, 192:4, 213:6, 213:9, 214:6, 214:21, 214:25, 215:3, 220:12, 226:20, 227:1, 239:18, 240:2, 240:6

music [1] - 244:5

must [2] - 14:16, 16:6

mute [1] - 14:11

mutual [1] - 145:20

mutually [3] - 121:14, 121:19, 122:5

MW [3] - 9:3, 9:8, 9:9

MWs [1] - 9:4

N

nacelle [1] - 189:22

NAD83 [1] - 9:11

name [10] - 29:25, 30:2, 35:24, 111:8, 131:19, 133:1, 149:21, 170:20, 215:4, 215:6

nameplate [9] - 60:11, 61:8, 62:13, 90:11, 100:12, 100:13, 123:24, 123:25, 212:5

nameplated [3] - 172:3, 172:5, 172:11

nameplates [1] - 185:8

napping [1] - 239:17

narrow [1] - 145:1

NARUC [3] - 27:7, 27:12, 27:13

national [1] - 132:21

natural [3] - 84:13, 139:21, 203:23

nature [9] - 59:21, 61:15, 63:14, 108:9, 157:2, 158:3, 174:11, 204:5, 233:2

navy [1] - 15:18

NCF [1] - 210:23

near [8] - 23:20, 114:12, 123:5, 123:21, 141:20, 142:14, 145:2, 177:5

Nearby [1] - 8:15

nearly [1] - 231:19

necessarily [6] - 43:6, 58:25, 84:7, 99:15, 140:20, 156:20

necessary [10] - 28:23, 59:18, 63:11, 83:14, 84:22, 85:16, 106:14, 157:3, 197:10, 202:24

need [43] - 15:14, 15:15, 17:14, 17:22, 29:2, 34:9, 39:23, 50:8, 50:9, 56:7, 60:4, 61:10, 71:5, 86:8, 89:10, 98:19, 99:4, 99:8, 109:22, 113:5, 114:24, 117:6, 137:24, 142:21, 143:4, 152:9, 152:12, 152:13, 152:14, 164:20, 166:6, 173:21, 184:15, 188:1, 192:4, 192:7, 206:20, 236:5, 236:9, 236:10, 239:19, 241:18, 245:18

needed [8] - 58:6, 102:8, 102:13, 106:21, 163:17, 167:19, 167:22, 201:7

needing [1] - 15:21

needs [6] - 18:2, 53:7, 59:20, 104:11, 145:20, 167:14

NEER [4] - 30:4, 30:11, 30:15, 83:9

negative [10] - 135:23, 136:15, 138:17, 148:11, 150:10, 150:13, 150:14, 163:11, 169:18, 244:3

negatively [5] - 160:5, 160:14, 166:10, 166:13, 166:21

neighbor [10] - 33:7, 33:10, 33:12, 33:15, 33:20, 33:23, 33:25, 40:5, 44:16, 168:21

neighbors [4] - 24:21, 167:25, 168:1

Nelson [6] - 12:13, 89:5, 128:7, 165:3, 202:22, 245:11

NELSON [41] - 1:11, 87:9, 89:6, 89:14, 89:17, 89:20, 90:1, 90:18, 91:10, 91:13, 91:18, 128:9, 165:4, 165:12, 165:20, 166:5, 166:17, 167:10, 168:11, 169:9, 170:3, 201:18, 201:23, 202:18, 203:11, 203:22, 204:10, 204:18, 205:19, 206:6, 206:13, 206:17, 206:23, 207:12, 207:17, 208:3, 208:9, 208:18, 209:11, 209:19, 209:22

Nelson's [1] - 168:18

nerves [1] - 20:11

nervous [2] - 212:19, 212:21

Nest [1] - 7:7

network [1] - 82:9

never [9] - 28:11, 57:13, 160:2,

174:20, 176:12, 219:11, 233:3, 246:11
new [30] - 32:4, 49:8, 49:11, 49:14, 49:22, 50:8, 50:10, 50:18, 50:24, 52:4, 82:18, 84:12, 84:23, 94:4, 94:17, 94:18, 95:11, 121:18, 121:20, 121:23, 143:2, 152:21, 153:10, 153:11, 155:6, 163:14, 163:19, 194:4, 234:1
NewEra [2] - 34:16, 113:21
newly [2] - 50:24, 84:17
next [19] - 61:17, 61:20, 62:6, 70:16, 95:15, 98:4, 98:10, 103:4, 109:15, 112:23, 162:4, 164:23, 164:24, 170:15, 180:25, 199:7, 214:20, 214:24, 245:5
next-up [2] - 61:17, 62:6
NextEra [31] - 30:3, 66:18, 69:22, 69:25, 70:1, 70:2, 70:3, 70:6, 70:10, 70:13, 70:17, 71:20, 72:17, 72:21, 72:22, 111:11, 111:12, 111:20, 111:24, 113:21, 113:25, 120:14, 126:14, 126:19, 127:8, 127:23, 170:24, 171:9, 192:1, 243:3
night [2] - 15:6, 244:25
nine [3] - 80:10, 172:5, 185:3
nobody [1] - 221:15
Noise [9] - 7:18, 8:3, 8:4, 8:6, 8:10, 8:11, 8:12, 9:14, 9:18
noise [83] - 23:21, 24:1, 25:8, 26:4, 35:3, 37:5, 37:15, 40:9, 40:15, 55:4, 55:12, 56:12, 58:2, 58:15, 59:4, 59:25, 80:24, 114:4, 119:9, 122:15, 123:2, 123:6, 134:22, 139:2, 139:13, 139:16, 139:17, 139:21, 139:24, 145:25, 151:21, 151:22, 151:25, 163:3, 163:6, 179:4, 180:23, 180:24, 181:9, 181:14, 181:17, 182:6, 182:10, 183:2, 183:10, 188:20, 189:1, 190:20, 191:15, 191:17, 196:14, 196:18, 196:22, 215:10, 216:2, 217:6, 217:12, 217:24, 222:7, 222:15, 222:23, 224:2, 225:10, 229:12, 229:17, 230:8, 230:11, 230:14, 230:18, 230:19, 231:21, 232:1, 232:11, 233:14, 237:2, 237:4, 243:24, 244:2, 244:21, 245:17, 245:19, 246:18
noisemaker [1] - 231:19
non [2] - 100:10, 100:11
non-safe [2] - 100:10, 100:11
none [8] - 29:13, 54:22, 113:24, 128:8, 145:7, 243:11, 243:18, 246:4
nonobstruction [2] - 41:10, 41:13
nonparticipant [3] - 35:18, 94:13, 94:15
nonparticipants [13] - 24:9, 24:17, 25:1, 25:6, 34:10, 34:17, 34:19, 35:6, 39:12, 40:13, 42:12, 94:11, 114:5
nonparticipating [15] - 24:24, 25:22, 32:6, 33:18, 42:25, 45:23, 78:11, 120:16, 175:6, 217:25, 218:2, 218:4, 220:19, 221:9, 248:21
nonparticipator [1] - 120:10
norm [3] - 138:9, 155:6, 160:23
normal [13] - 173:24, 188:5, 188:6, 189:2, 189:9, 189:10, 201:8, 202:2, 232:7, 232:15, 232:18, 232:24
normally [3] - 100:21, 188:23, 203:4
north [3] - 72:15, 207:10, 216:5
North [5] - 213:1, 215:7, 215:14, 215:23, 230:22
northeast [1] - 154:23
Northern [16] - 65:9, 65:16, 65:19, 66:1, 71:23, 72:11, 72:14, 111:15, 112:18, 116:1, 118:3, 118:4, 126:21, 126:25, 215:22
northwest [1] - 154:25
notable [1] - 80:19
Notary [2] - 250:7, 250:18
note [6] - 23:1, 76:10, 81:25, 139:1, 235:20, 247:18
noted [3] - 27:4, 27:5, 245:18
notes [4] - 91:13, 92:14, 92:21, 181:4
nother [1] - 163:3
nothing [16] - 24:11, 42:7, 42:8, 81:8, 105:1, 107:18, 110:15, 128:2, 134:4, 144:2, 178:17, 181:9, 181:12, 194:14, 201:1, 229:12
Notice [3] - 7:21, 7:22, 12:16
notice [4] - 27:11, 138:25, 234:16, 235:9
noticed [3] - 12:15, 63:17, 245:1
notification [1] - 63:16
notified [1] - 63:17
notifying [1] - 63:20
notions [1] - 107:25
Nova [1] - 171:14
November [1] - 179:16
NSP [26] - 63:18, 63:22, 72:7, 83:6, 85:10, 103:5, 103:7, 113:17, 114:6, 116:4, 116:6, 117:23, 117:25, 118:1, 118:13, 118:17, 118:19, 118:22, 118:25, 121:10, 122:5, 122:8, 126:9, 127:7, 127:10, 127:21
NSP's [2] - 66:5, 114:8
number [45] - 20:9, 30:13, 31:18, 34:5, 38:9, 40:25, 44:10, 44:19, 54:8, 63:10, 71:14, 76:3, 76:6, 76:13, 79:11, 79:20, 79:22, 88:10, 90:5, 93:11, 111:23, 114:23, 115:5, 115:6, 119:20, 122:12, 124:8, 127:12, 147:5, 155:25, 156:6, 182:13, 186:6, 193:19, 205:6, 217:12, 219:2, 221:20, 222:2, 222:19, 222:25, 223:12, 228:6, 243:4, 249:5
numbers [8] - 37:5, 96:11, 96:12, 120:8, 124:7, 208:4, 223:3, 236:12
numerous [3] - 31:23, 86:24, 159:15

O

O&M [1] - 95:4
o'clock [2] - 15:2, 244:25
oath [5] - 29:22, 111:5, 131:16, 170:17, 215:1
Oberg [1] - 207:8
OBERG [1] - 207:10
obey [1] - 241:2
object [2] - 23:7, 103:8
objection [37] - 19:3, 19:6, 22:19, 22:25, 23:1, 23:8, 37:25, 39:6, 39:16, 39:20, 43:15, 49:15, 49:25, 52:6, 52:20, 54:18, 54:20, 54:24, 68:11, 68:14, 68:15, 68:24, 70:9, 70:10, 70:12, 81:25, 176:19, 177:7, 190:23, 191:1, 192:10, 192:19, 226:20, 227:1, 239:21, 240:24
objections [1] - 92:20
Objective [2] - 8:4, 8:9
objector [2] - 153:17, 159:22
objects [1] - 56:15
obligated [1] - 36:24
obligations [1] - 173:8
obliged [1] - 37:9
obstruction [3] - 109:10, 109:12, 242:22
obtain [3] - 73:17, 107:6, 159:10
obtains [1] - 24:8
obviously [17] - 20:25, 57:10, 58:5, 99:13, 135:25, 137:12, 138:15, 139:17, 150:16, 154:14, 155:9, 156:23, 161:13, 165:17, 167:12, 167:17, 208:23
occasions [1] - 133:15
occupied [7] - 9:10, 217:9, 218:2, 218:15, 218:24, 220:2, 224:24
occur [9] - 31:4, 31:9, 59:17, 61:14, 127:1, 172:18, 219:18, 219:21, 249:16
occurred [2] - 79:13, 233:12
occurring [2] - 196:9, 196:17
occurs [1] - 247:6
octave [1] - 230:20
October [8] - 12:16, 27:13, 56:23, 57:5, 57:6, 57:9, 57:15, 63:18
odd [1] - 244:22
OF [6] - 1:2, 1:4, 1:5, 250:1, 250:3
off-site [1] - 186:21
offer [16] - 16:6, 32:16, 33:12, 39:13, 40:5, 40:12, 40:16, 43:11, 45:4, 45:16, 54:15, 113:9, 140:17, 158:11, 173:11, 220:12
offered [9] - 33:23, 36:20, 40:2, 41:6, 43:13, 43:22, 43:25,

49:21, 165:24
offering [4] - 35:9, 35:10, 39:2, 41:12
offhand [2] - 109:24, 227:7
office [1] - 172:17
officer [1] - 111:25
officers [1] - 113:22
offices [1] - 14:24
official [1] - 27:11
officially [1] - 48:9
often [2] - 90:6, 211:2
oftentimes [1] - 90:9
oil [10] - 189:21, 189:22, 190:1, 190:2, 190:3, 190:7, 190:8, 190:10, 190:12, 190:15
old [5] - 49:13, 50:16, 156:13, 157:16, 234:2
older [1] - 137:10
Ollson [2] - 7:23, 10:6
OLLSON [1] - 4:17
OLSON [1] - 6:7
Olson [1] - 11:14
omnidirectional [1] - 219:5
once [8] - 23:7, 32:11, 42:24, 72:13, 114:1, 118:4, 123:18, 155:5
one [110] - 15:13, 15:14, 20:11, 21:14, 26:3, 26:13, 28:1, 30:25, 33:3, 34:7, 35:24, 50:20, 51:23, 51:24, 54:5, 54:6, 54:9, 57:2, 62:20, 67:7, 75:12, 77:12, 77:20, 79:10, 80:15, 80:16, 83:3, 86:13, 86:14, 86:17, 86:21, 86:23, 87:7, 90:4, 90:6, 103:2, 103:6, 103:8, 104:4, 104:18, 107:1, 107:13, 115:2, 115:4, 115:13, 120:8, 120:9, 120:19, 121:3, 123:7, 123:17, 123:20, 130:6, 133:25, 136:1, 136:9, 137:23, 139:11, 139:14, 144:23, 145:7, 146:6, 147:8, 148:16, 152:11, 152:19, 158:21, 160:6, 160:9, 160:13, 160:15, 164:9, 180:8, 182:13, 183:7, 191:23, 193:14, 193:16, 194:3, 194:11, 194:13, 196:4, 199:6, 199:7, 199:16, 201:3, 201:24, 205:6, 207:1, 207:5, 207:10, 217:12, 219:2, 219:4, 220:4, 235:5, 236:8, 244:7, 244:22, 248:20, 248:21, 248:25, 249:11, 249:15
one's [2] - 176:19, 176:22
one-question [1] - 103:2
one-story [1] - 144:23
one-third [3] - 62:20, 123:17, 123:20
ones [9] - 56:5, 129:12, 184:19, 184:25, 208:25, 209:3, 235:17, 238:6
Onida [2] - 1:25, 250:13
online [7] - 57:8, 57:11, 57:21, 58:1, 58:22, 59:1, 59:15
open [6] - 14:21, 15:7, 62:23, 103:9, 103:13, 235:11
opening [14] - 22:13, 22:15, 22:18, 22:20, 23:3, 23:6, 23:10, 29:2, 29:9, 29:16, 91:25, 92:1, 229:22
operate [7] - 72:12, 72:15, 106:17, 117:24, 118:11, 201:8, 211:25
operated [2] - 71:20, 71:22
operating [8] - 58:7, 66:7, 72:11, 77:22, 95:3, 188:6, 203:3, 217:13
operation [12] - 13:7, 77:22, 105:22, 124:14, 179:24, 202:2, 219:12, 223:5, 232:16, 232:19, 237:2, 246:3
operational [6] - 56:22, 106:15, 219:24, 232:5, 232:7, 233:4
operations [19] - 30:8, 31:3, 31:20, 57:6, 57:7, 59:8, 59:11, 59:24, 77:24, 112:19, 117:24, 173:24, 174:9, 174:10, 175:13, 175:14, 232:21
operator [1] - 152:14
opinion [14] - 25:9, 106:11, 137:2, 139:9, 139:12, 151:16, 151:23, 155:11, 155:12, 155:17, 166:23, 168:3, 175:9, 224:19
opinions [3] - 136:12, 136:16, 169:20
opportunities [1] - 121:15
opportunity [6] - 23:1, 32:10, 34:23, 102:16, 122:5, 135:10
oppose [1] - 86:1
opposed [2] - 155:1, 226:7
opposition [5] - 23:15, 23:18, 159:13, 159:14, 159:16
Optical [1] - 8:22
optimized [2] - 209:5, 209:6
optimum [1] - 206:1
option [3] - 43:1, 44:20, 110:7
options [2] - 19:13, 187:3
Ord [2] - 10:3, 10:4
order [10] - 12:3, 24:22, 25:2, 101:6, 101:10, 114:5, 131:12, 179:12, 180:9, 180:19
Order [1] - 12:15
ordered [1] - 172:10
ordering [1] - 206:10
orderly [1] - 13:1
ordinance [58] - 24:12, 24:14, 27:24, 47:22, 48:4, 48:18, 48:25, 49:8, 49:11, 49:13, 49:14, 49:22, 49:23, 50:14, 50:16, 50:18, 50:25, 51:10, 51:12, 52:4, 52:5, 52:14, 52:15, 52:16, 52:19, 53:14, 53:15, 53:22, 53:24, 93:5, 93:20, 143:7, 143:13, 143:18, 200:3, 213:12, 213:19, 218:16, 233:6, 233:7, 233:13, 233:23, 234:1, 234:2, 234:6, 234:10, 238:4, 238:23, 238:25, 239:23, 240:8, 240:11, 240:16, 240:18, 240:19, 240:24
ordinances [5] - 32:5, 52:3, 197:20, 198:14, 199:16
organization [3] - 170:23, 176:15, 177:17
orientation [1] - 203:5
original [2] - 103:18, 199:2
Original [1] - 7:20
originals [1] - 137:23
otherwise [4] - 56:9, 72:12, 110:25, 154:2
output [9] - 180:24, 181:9, 182:4, 182:20, 183:1, 183:3, 191:24, 224:2, 224:23
outputs [1] - 184:9
outreach [1] - 30:7
outs [1] - 50:16
outside [4] - 15:2, 176:21, 202:13, 228:13
outstanding [1] - 75:13
outward [1] - 231:24
overage [1] - 120:16
overall [1] - 210:14
overnight [1] - 187:22
overrule [1] - 13:21
overruled [1] - 13:22
oversight [4] - 13:19, 126:15, 173:5, 173:6
overview [11] - 30:9, 31:11, 110:4, 111:18, 112:14, 132:4, 134:5, 171:4, 171:24, 215:11, 217:1
own [6] - 66:6, 72:12, 116:1, 117:24, 118:11, 245:17
owned [4] - 71:20, 71:22, 118:24, 118:25
owner [4] - 42:12, 65:16, 66:2, 249:6
owners [6] - 146:23, 158:9, 158:22, 203:24, 220:18, 221:9
ownership [6] - 72:7, 72:8, 118:3, 118:13, 118:14, 167:8
owns [1] - 249:7

P

p.m [1] - 249:23
pace [1] - 14:15
PAGE [6] - 3:2, 4:2, 5:2, 5:9, 5:19, 6:2
page [72] - 24:6, 26:24, 26:25, 31:1, 33:1, 33:4, 33:6, 36:7, 38:5, 38:9, 38:10, 38:11, 38:12, 38:13, 38:15, 38:16, 38:19, 46:6, 47:19, 48:2, 75:2, 79:2, 79:4, 83:9, 85:22, 86:7, 88:7, 113:17, 117:5, 117:9, 117:22, 119:6, 119:13, 124:6, 124:7, 130:8, 140:16, 159:20, 160:3, 180:21, 181:11, 189:17, 190:17, 196:24, 197:14, 197:16, 197:22, 198:17, 199:14, 201:6, 210:5, 211:16, 212:3, 213:15, 213:18, 213:25, 214:3, 228:1, 231:17, 232:4, 233:5, 234:12, 236:11, 236:12, 236:20, 236:22, 237:16, 238:11, 241:22
Pages [1] - 1:9
pages [8] - 50:13, 74:23, 76:24, 197:23, 199:20, 213:14, 237:16, 237:17
paid [2] - 136:2, 143:15
Paige [1] - 11:14
PAIGE [1] - 6:7
pain [1] - 20:12
pair [1] - 135:4
paper [1] - 56:3
paragraph [6] - 24:23,

25:2, 36:11, 124:11, 160:4
Parameters [1] - 8:6
parameters [2] - 192:5, 194:15
paraphrase [1] - 65:8
paraphrasing [1] - 101:2
parcel [2] - 142:3, 217:10
Parcel [1] - 9:9
parcels [1] - 142:21
parent [2] - 70:4, 182:10
Park [4] - 24:23, 25:24, 26:9, 93:22
Parks [2] - 88:5, 99:24
parks [1] - 162:16
part [39] - 24:4, 26:7, 27:17, 32:22, 35:7, 36:5, 36:19, 38:5, 41:21, 45:1, 47:2, 49:7, 53:25, 68:23, 69:6, 75:21, 80:21, 80:24, 91:5, 91:6, 100:1, 118:23, 127:15, 127:23, 128:16, 128:20, 142:2, 142:8, 147:6, 158:10, 177:17, 202:11, 209:10, 233:25, 234:6, 238:4, 244:20
Part [1] - 11:9
partially [2] - 37:3, 106:7
participant [5] - 44:24, 120:8, 120:9, 220:6, 249:8
Participants [1] - 8:13
participants [5] - 24:7, 24:11, 26:21, 39:11, 65:13
participate [12] - 33:17, 34:5, 34:20, 34:25, 40:13, 41:2, 41:3, 43:5, 43:10, 43:12, 44:12, 158:10
participating [13] - 33:24, 35:9, 36:21, 41:5, 42:12, 42:19, 78:10, 78:12, 78:16, 218:3, 218:5, 220:19, 221:10
participation [25] - 34:2, 34:18, 35:5, 35:14, 35:19, 40:6, 40:17, 40:22, 41:5, 41:12, 41:16, 41:18, 42:23, 43:21, 45:5, 45:11, 45:13, 45:16, 45:24, 78:2, 78:8, 78:9, 102:20, 103:5, 114:4
participator's [1] - 66:5
participators [1] - 66:6
particular [13] - 15:11, 75:17, 90:2, 135:21, 143:17, 146:6, 192:15, 197:11, 199:9, 202:9, 209:1, 248:3, 248:6
particularly [2] - 132:2, 132:22
particulars [1] - 134:23
parties [13] - 13:10, 13:13, 13:15, 16:14, 17:11, 17:18, 19:9, 20:14, 87:21, 121:14, 121:19, 127:16, 127:20
partly [1] - 177:16
partner [2] - 215:7, 215:20
partnership [1] - 69:21
partnerships [1] - 66:17
parts [3] - 18:1, 39:24, 52:18
Party [1] - 10:17
party [1] - 182:9
pass [3] - 83:2, 107:12, 180:4
passed [4] - 106:8, 125:10, 125:12, 234:2
passes [2] - 158:19, 247:9
past [6] - 14:23, 34:16, 77:9, 92:15, 158:6, 175:3
path [2] - 103:23, 132:11
patriarch [1] - 158:19
pave [1] - 163:16
paved [4] - 147:12, 156:3, 161:16, 161:25
pavement [1] - 224:5
pay [1] - 161:22
paying [1] - 116:6
payments [4] - 31:19, 116:6, 116:8, 134:10
pdf [1] - 124:5
peasy [1] - 129:12
peer [1] - 135:4
peer-reviewed [1] - 135:4
pending [1] - 18:1
Penn [1] - 112:4
people [46] - 17:13, 40:13, 44:12, 45:4, 53:24, 80:4, 92:21, 93:2, 93:16, 94:10, 94:20, 125:7, 136:9, 136:11, 144:15, 144:17, 144:23, 145:5, 145:8, 146:23, 147:14, 147:15, 151:8, 156:9, 157:19, 157:21, 158:16, 161:7, 161:19, 162:4, 162:14, 162:15, 162:18, 163:18, 164:5, 164:6, 167:24, 168:5, 168:7, 177:10, 211:20, 228:9, 231:1, 231:2, 238:7
per [27] - 24:16, 33:1, 87:4, 87:5, 87:12, 88:10, 102:4, 102:6, 102:10, 102:11, 116:6, 118:14, 120:1, 139:6, 141:21, 142:6, 143:23, 144:1, 144:11, 208:11, 220:1, 220:4, 220:7, 234:19, 234:22, 235:6, 249:16
perceived [2] - 35:11, 76:13
percent [16] - 41:13, 48:12, 49:9, 93:12, 199:14, 199:25, 205:23, 210:9, 210:12, 210:14, 210:23, 212:3, 212:5, 212:8, 213:22, 219:11
percentage [3] - 26:16, 155:19, 223:6
perfect [1] - 211:13
perfectly [1] - 23:15
perform [4] - 133:3, 228:20, 228:22, 229:23
performed [3] - 219:15, 221:6, 229:21
performing [1] - 222:15
perhaps [10] - 45:15, 59:22, 68:21, 88:12, 101:2, 107:3, 122:2, 197:20, 231:12, 232:21
perimeter [2] - 218:9, 241:24
period [1] - 166:25
permanent [3] - 31:20, 167:4, 171:2
permissible [1] - 203:13
permission [1] - 206:8
permit [16] - 12:6, 13:5, 48:10, 48:12, 53:1, 62:21, 63:8, 73:15, 94:14, 94:24, 96:5, 96:24, 96:25, 151:23, 173:8, 237:19
Permit [22] - 11:16, 47:6, 47:11, 47:12, 47:15, 48:7, 48:22, 48:24, 49:1, 49:4, 49:12, 49:13, 221:1, 221:4, 221:5, 233:9, 233:14, 233:24, 236:1, 237:25, 238:18, 239:1
PERMIT [1] - 1:5
permits [15] - 62:17, 69:12, 73:13, 73:17, 74:1, 85:16, 87:20, 96:1, 172:22, 195:2, 195:4, 195:5, 195:9, 195:14, 241:10
Permits [1] - 7:9
permitted [8] - 14:23, 37:6, 57:3, 59:22, 63:9, 69:9, 115:21, 178:10
permitting [6] - 30:6, 73:20, 171:7, 172:25, 240:8, 241:13
person [7] - 41:11, 74:9, 101:11, 101:20, 107:11, 239:13, 239:15
personal [11] - 113:23, 144:24, 147:17, 148:9, 164:7, 166:9, 167:16, 167:17, 168:4, 168:6, 168:9
personally [3] - 20:2, 21:3, 147:18
personnel [2] - 193:2, 200:12
persons [2] - 13:11, 37:23
perspective [4] - 89:22, 178:25, 187:7, 188:22
pertaining [3] - 101:1, 160:7, 175:16
pertains [1] - 172:13
phase [3] - 124:24, 128:20, 128:21
phenomenal [1] - 26:17
phone [2] - 14:11, 15:19
photo [1] - 216:3
photos [1] - 165:7
Photosensitive [2] - 8:17, 8:18
phrase [1] - 196:15
phrased [1] - 95:16
physical [3] - 183:18, 189:20, 217:17
physically [2] - 159:18, 247:25
physics [4] - 226:7, 226:9, 226:10, 226:15
physics-based [1] - 226:7
pick [3] - 166:17, 209:3, 209:9
picked [1] - 232:12
picture [1] - 183:14
pictures [1] - 178:8
pie [1] - 231:23
piece [6] - 142:8, 142:10, 142:20, 156:22, 166:7, 202:11
pieces [10] - 87:3, 109:2, 142:20, 142:25, 143:24, 155:23, 158:9, 183:9, 183:12, 186:19
Pierre [2] - 2:4, 12:11
piggybacking [1] - 129:13
pivot [1] - 106:3
place [19] - 25:16, 35:7, 49:8, 81:3, 86:21, 86:23, 87:11, 90:6, 106:1, 143:8, 151:7, 168:2, 168:20, 174:16, 186:25, 195:17, 197:12, 233:10, 239:23
placed [10] - 90:9, 145:2, 190:18, 192:22, 199:7, 200:7, 205:8, 205:11, 205:13

placement [2] - 32:7, 75:23
places [1] - 242:18
placing [2] - 86:14, 86:23
Plan [1] - 7:11
plan [8] - 80:3, 90:19, 106:1, 106:12, 113:16, 186:15, 186:18, 195:17
plane [1] - 109:18
planned [2] - 31:9, 95:11
planning [1] - 128:21
plans [5] - 46:19, 46:22, 47:5, 62:17, 186:10
plant [1] - 163:5
planting [1] - 37:10
plants [1] - 171:9
platform [1] - 185:8
play [2] - 114:9, 243:2
playing [2] - 166:15, 247:12
plots [1] - 143:11
plural [1] - 124:15
plus [1] - 126:11
ply [1] - 237:2
point [25] - 19:11, 21:17, 27:16, 29:1, 36:8, 44:1, 44:9, 48:16, 49:24, 65:1, 68:4, 71:11, 103:23, 131:5, 148:2, 148:23, 186:3, 192:11, 197:4, 207:8, 223:7, 245:6, 245:9, 247:19, 248:12
pointed [2] - 98:19, 127:13
pointing [1] - 226:17
points [3] - 25:6, 92:7, 128:23
pole [2] - 143:22, 144:12
police [1] - 162:2
policy [3] - 28:1, 94:15, 176:9
polygon [1] - 97:17
Polysomnographic [1] - 8:6
Polytechnic [1] - 112:2
pool [1] - 145:1
poor [1] - 108:6
porous [1] - 224:7
portfolio [2] - 61:19, 62:2
portion [8] - 20:22, 98:22, 123:21, 129:23, 205:10, 208:24, 209:4, 220:10
portions [3] - 18:3, 22:20, 108:14
pose [2] - 12:20, 102:18
posed [1] - 105:19
position [10] - 26:22, 101:12, 129:1, 129:3, 135:15, 160:1, 170:7, 173:6, 179:14, 219:5
positions [1] - 132:15
possibility [4] - 57:25, 58:13, 58:17, 108:12
possible [8] - 72:3, 85:2, 95:11, 95:23, 103:15, 105:14, 107:10, 165:8
possibly [7] - 39:12, 62:19, 108:11, 145:1, 187:3, 197:18, 237:24
Postconstruction [1] - 7:17
Potential [2] - 8:19, 9:19
potential [19] - 9:4, 58:23, 75:21, 76:8, 76:11, 76:15, 80:24, 83:19, 85:2, 85:4, 90:14, 106:6, 126:12, 141:11, 141:18, 151:9, 165:9, 169:6, 169:14
potentially [5] - 94:25, 197:1, 199:14, 199:25, 248:11
pothole [1] - 142:4
pounds [12] - 70:22, 71:8, 71:9, 71:13, 71:16, 185:18, 185:25, 186:1, 186:5, 186:9, 193:17, 193:18
Power [16] - 65:9, 65:10, 65:16, 66:2, 71:23, 72:11, 72:14, 111:15, 112:18, 116:1, 118:3, 118:4, 126:21, 126:25, 171:8, 215:23
power [24] - 22:24, 24:17, 28:20, 88:9, 159:17, 160:19, 179:23, 180:12, 180:23, 181:2, 181:10, 193:12, 201:7, 201:9, 201:10, 201:16, 211:6, 211:8, 211:23, 211:24, 218:20, 223:10, 232:4
Power's [1] - 65:20
powers [1] - 158:13
Poweshiek [1] - 7:6
PPA [1] - 83:19
practice [2] - 16:21, 246:24
Practices [2] - 27:8, 27:12
preceding [1] - 124:12
precise [1] - 91:8
Precision [1] - 1:25
preconstruction [2] - 229:11, 229:17
predicted [2] - 114:12, 225:10
prefer [4] - 19:17, 19:19, 56:2, 89:15
preference [2] - 19:18, 144:24
preferences [1] - 145:8
prefile [1] - 30:17
Prefiled [17] - 11:12, 11:12, 11:13, 11:14, 11:14, 11:15, 30:20, 112:6, 112:7, 133:18, 133:20, 171:15, 171:16, 171:18, 216:14, 216:15, 216:17
prefiled [14] - 17:19, 18:1, 21:21, 30:18, 30:24, 31:12, 101:11, 112:12, 112:14, 133:24, 134:5, 171:22, 171:24, 217:1
preliminary [8] - 13:21, 13:23, 14:6, 64:7, 129:15, 129:19, 244:10, 247:22
prepare [2] - 82:14, 98:5
prepared [3] - 36:3, 164:25, 244:25
present [6] - 12:14, 13:10, 51:6, 82:12, 193:1, 200:11
presented [5] - 27:23, 123:13, 234:16, 234:18, 237:5
president [2] - 131:21, 132:16
presiding [1] - 12:14
pressure [5] - 26:12, 179:12, 241:23, 242:1, 242:3
pretend [1] - 14:3
pretty [7] - 61:4, 93:7, 123:20, 138:20, 157:20, 180:20, 183:4
Prevailing [4] - 24:23, 25:24, 26:9, 133:16
prevent [2] - 189:21, 207:23
previous [4] - 88:16, 105:18, 129:25, 181:11
previously [5] - 83:23, 130:1, 133:13, 150:21, 244:17
price [2] - 140:19, 144:10
prices [1] - 157:1
primaries [2] - 80:23, 81:4
primarily [1] - 133:11
Primary [1] - 10:5
primary [4] - 80:9, 80:14, 91:5, 100:12
principal [1] - 242:16
printed [2] - 236:19, 236:20
printer [1] - 236:24
private [2] - 32:9, 159:15
privilege [2] - 28:6, 31:23
privity [1] - 39:3
pro [5] - 1:20, 1:22, 16:3, 50:1, 68:17
probabilities [2] - 218:23, 219:23
probability [2] - 202:15, 202:17
probed [1] - 135:19
problem [9] - 52:11, 115:17, 139:17, 149:3, 151:22, 153:18, 153:22, 161:3, 246:10
problems [1] - 65:1
procedural [1] - 13:20
procedure [2] - 203:17, 240:9
proceed [4] - 15:25, 16:11, 23:2, 76:20
proceeded [1] - 103:20
proceeding [4] - 28:16, 56:18, 80:5, 192:15
Proceedings [1] - 1:7 26
proceedings [4] - 2:1, 13:24, 250:9, 250:12
proceeds [1] - 61:14
process [17] - 49:7, 52:9, 53:25, 73:20, 77:7, 82:11, 93:21, 99:10, 99:22, 110:9, 151:17, 168:22, 172:19, 179:23, 186:20, 207:25, 241:13
processes [2] - 71:25, 186:24
procure [4] - 80:6, 82:5, 82:7, 95:8
procuring [1] - 63:5
produce [5] - 41:17, 41:21, 193:22, 219:11, 229:8
Produced [1] - 8:11
produced [6] - 34:3, 46:1, 46:5, 88:11, 196:18, 234:8
producer [1] - 123:22
produces [1] - 188:17
producing [1] - 209:12
product [2] - 84:16, 85:1
production [1] - 209:13
productions [1] - 163:4
productive [1] - 142:3
productivity [1] - 156:3
Professional [2] - 250:6, 250:19
professionals [2] - 132:13, 135:6
profile [7] - 188:6, 188:8, 190:21, 191:17, 232:9, 238:14, 238:19
profiles [2] - 230:19, 239:14
profit [2] - 116:13, 116:19
program [5] - 83:24, 229:7, 230:12, 230:14, 231:1
prohibit [2] - 198:4, 198:14
prohibiting [1] - 200:3
project [189] - 13:8, 23:21, 30:2, 30:8, 30:12, 30:14, 31:14, 31:17, 31:21, 31:22, 32:2, 32:8, 33:17,

33:24, 34:5, 34:25, 35:5, 35:8, 36:16, 37:7, 40:3, 40:14, 40:23, 41:2, 42:15, 43:6, 43:10, 44:13, 44:25, 45:1, 45:2, 45:5, 45:19, 45:21, 47:13, 55:5, 55:6, 55:13, 55:14, 56:14, 57:4, 57:18, 57:21, 58:1, 58:7, 59:22, 60:6, 60:9, 60:14, 60:17, 60:25, 61:1, 61:14, 61:18, 61:19, 61:25, 62:1, 62:2, 62:11, 62:20, 62:23, 63:2, 63:24, 63:25, 64:3, 64:7, 65:6, 65:16, 66:3, 66:10, 66:25, 69:4, 69:8, 70:25, 71:2, 71:3, 71:5, 71:22, 71:24, 72:6, 72:7, 72:10, 72:14, 72:15, 76:16, 77:22, 79:9, 80:3, 80:10, 81:2, 82:3, 82:5, 83:16, 83:25, 84:1, 84:11, 85:8, 85:13, 87:17, 89:9, 90:10, 90:16, 92:4, 92:9, 93:8, 93:23, 94:22, 95:1, 98:22, 99:21, 101:12, 101:14, 103:4, 107:9, 108:14, 111:14, 111:22, 112:17, 115:21, 116:2, 116:3, 116:4, 117:25, 121:17, 121:18, 121:20, 121:22, 121:23, 122:4, 122:9, 123:13, 124:21, 126:15, 131:25, 132:2, 133:10, 134:7, 134:8, 134:9, 134:10, 134:23, 137:24, 139:7, 139:25, 145:16, 146:19, 146:21, 146:22, 147:5, 148:1, 149:3, 149:17, 151:15, 152:14, 158:10, 171:7, 172:16, 177:5, 178:5, 178:9, 184:22, 184:24, 185:5, 185:19, 185:21, 186:7, 186:16, 192:23, 197:11, 206:7, 206:15, 216:8, 217:3, 217:24, 228:20, 228:25, 229:24, 230:3, 230:9, 230:24, 231:20, 235:10, 235:15, 243:13, 245:19, 246:3, 246:8

project's [5] - 31:3, 31:8, 65:11, 92:7, 114:2

projected [2] - 23:21, 31:4

projections [1] - 145:21

projects [25] - 30:13, 35:16, 43:14, 43:25, 44:17, 68:2, 76:19, 82:22, 83:6, 83:17, 83:19, 84:2, 105:17, 133:8, 133:16, 135:1, 146:24, 151:5, 151:6, 159:16, 160:5, 160:15, 160:21, 186:8, 243:3

promise [2] - 27:1, 78:5

promote [1] - 241:3

proof [2] - 13:10, 241:17

propagates [1] - 231:24

proper [4] - 25:15, 151:7, 160:18, 216:11

properly [3] - 137:4, 138:4, 153:24

properties [14] - 44:18, 44:21, 66:5, 80:25, 94:13, 132:3, 134:17, 134:18, 135:5, 140:6, 143:10, 147:2, 154:11, 203:25

property [66] - 23:19, 24:20, 31:18, 34:21, 35:12, 37:23, 39:4, 43:7, 44:19, 45:10, 65:13, 66:7, 94:12, 98:6, 110:22, 132:3, 132:24, 135:23, 139:22, 140:13, 140:21, 141:5, 141:9, 141:15, 142:1, 143:3, 143:21, 143:24, 144:3, 145:2, 145:4, 146:18, 146:20, 147:4, 147:25, 148:22, 150:14, 150:23, 152:2, 158:2, 158:3, 158:22, 160:4, 160:13, 165:6, 165:13, 165:16, 165:18, 165:21, 165:24, 166:2, 166:7, 166:22, 167:5, 167:13, 169:1, 169:2, 169:12, 175:6, 175:7, 218:1, 220:18, 221:9, 224:25, 242:19, 249:7

Property [2] - 7:10, 9:22

proposal [6] - 10:7, 10:8, 10:9, 80:21, 80:24, 218:13

propose [1] - 20:20

Proposed [2] - 7:17, 11:16

proposed [14] - 12:19, 32:7, 76:6, 76:12, 79:9, 99:20, 102:12, 126:24, 132:2, 134:7, 135:9, 140:18, 140:20, 248:16

prospecting [1] - 216:1

protect [2] - 25:1, 25:23

protection [1] - 28:7

Protocol [1] - 7:18

protocol [1] - 246:18

proud [1] - 53:25

provide [42] - 13:19, 24:12, 30:9, 31:11, 33:21, 40:20, 51:19, 55:21, 56:11, 60:8, 64:6, 69:18, 74:22, 78:24, 83:2, 85:1, 99:8, 99:21, 104:12, 106:23, 111:18, 112:14, 116:12, 132:4, 134:5, 135:15, 151:13, 162:24, 162:25, 163:14, 163:16, 171:4, 171:24, 173:3, 177:10, 178:7, 201:7, 215:11, 217:1, 239:7, 246:7

provided [26] - 42:5, 42:23, 45:8, 52:2, 53:13, 53:21, 54:3, 57:1, 65:7, 67:19, 70:24, 104:17, 120:8, 152:19, 178:18, 178:21, 199:17, 215:10, 217:3, 220:23, 221:12, 228:23, 239:6, 241:10, 242:9, 243:10

provider [1] - 201:9

provides [6] - 31:17, 67:20, 121:1, 159:7, 163:21, 201:10

providing [6] - 33:18, 53:23, 135:3, 143:14, 162:21, 162:22

provision [2] - 36:24, 40:8

provisions [4] - 37:8, 109:16, 109:19, 109:23

proximate [6] - 132:3, 144:21, 160:5, 160:10, 160:14, 162:23

proximately [1] - 164:2

proximities [1] - 76:7

proximity [12] - 90:4, 108:5, 137:12, 147:11, 160:16, 161:24, 173:24, 174:3, 174:8, 175:25, 176:6, 203:2

PSA [2] - 83:19, 121:13

Psychological [1] - 8:8

public [10] - 14:17, 92:12, 92:14, 115:15, 151:9, 177:5, 177:8, 178:11, 178:12, 210:4

PUBLIC [2] - 1:1, 1:10

Public [5] - 7:22, 12:3, 133:14, 250:7, 250:18

Publication [1] - 7:22

published [1] - 181:12

PUC [12] - 7:22, 25:8, 25:19, 56:19, 85:25, 86:9, 122:3, 124:20, 125:1, 137:8, 238:21, 239:11

PUCs [1] - 151:11

pull [3] - 197:18, 197:19, 199:21

pulled [2] - 28:12, 55:24

pulling [1] - 82:19

punted [1] - 204:20

purchase [11] - 61:16, 85:17, 108:20, 116:6, 116:8, 118:15, 142:14, 143:1, 143:5, 164:2, 184:14

purchased [11] - 60:14, 60:16, 62:1, 62:4, 169:3, 184:18, 184:21, 184:25, 185:2, 185:6, 185:9

purchasing [4] - 158:1, 161:10, 201:12, 201:14

purports [1] - 46:6

purpose [3] - 39:2, 53:5, 220:21

purposely [1] - 103:12

purposes [6] - 17:13, 110:6, 199:1, 220:19, 221:1, 246:14

pursuant [2] - 12:15, 186:14

pursuing [1] - 85:2

push [1] - 14:6

put [31] - 32:12, 38:3, 50:14, 67:15, 92:2, 92:23, 94:19, 99:19, 135:3, 135:8, 144:2, 148:23, 148:25, 158:21, 159:2, 174:16, 180:22, 181:25, 182:9, 182:17, 182:22, 183:22, 184:1, 186:25, 187:7, 189:15, 191:21, 195:17, 226:13, 231:6, 231:11

puzzled [1] - 204:11

puzzles [1] - 165:13

Q

qualified [2] - 124:13, 154:15

qualifying [3] - 130:15, 142:10, 159:11

qualities [1] - 224:15

Quality [1] - 8:13

quality [1] - 162:1

quantities [1] - 61:16

quarter [13] - 31:5, 31:6, 31:9, 56:22, 57:8, 57:14, 57:19,

59:1, 59:16, 87:14, 114:13, 129:16, 129:17
quarters [1] - 104:5
question's [2] - 70:8, 157:23
questioning [4] - 42:16, 52:21, 52:22, 157:21
questions [53] - 22:1, 25:17, 50:2, 52:7, 53:4, 72:25, 74:21, 81:11, 81:19, 89:3, 89:17, 92:16, 95:15, 95:22, 100:16, 100:19, 100:22, 102:17, 103:3, 103:11, 103:15, 103:17, 105:7, 105:18, 107:24, 113:23, 125:18, 125:23, 126:6, 128:5, 128:9, 152:4, 152:8, 152:9, 154:3, 173:14, 173:20, 177:15, 194:22, 196:1, 196:24, 201:3, 202:1, 204:19, 208:20, 208:22, 209:23, 214:9, 214:11, 214:13, 243:15, 248:15, 249:18
Questions [18] - 3:6, 3:12, 3:16, 3:20, 4:6, 4:13, 4:16, 4:20, 5:5, 5:7, 5:12, 5:15, 5:17, 5:22, 6:6, 6:9, 6:11, 6:16
queue [6] - 128:15, 128:16, 129:1, 129:3, 129:14, 211:19
quick [4] - 107:23, 108:18, 109:8, 158:8
quicker [1] - 61:20
quickly [2] - 14:1, 111:3
quite [9] - 28:2, 97:23, 129:18, 145:18, 152:15, 157:17, 176:12, 191:18, 221:20
quote [3] - 61:9, 61:11, 233:5

R

rabbit [1] - 103:1
radar [18] - 75:21, 76:1, 86:17, 86:18, 87:12, 99:20, 102:8, 102:11, 205:6, 205:7, 205:14, 206:14, 206:21, 206:23, 207:2, 207:8, 207:22
radars [2] - 76:8
radiofrequency [1] - 122:17
radius [2] - 217:20, 242:8
rain [1] - 138:19
raise [1] - 65:10
raised [2] - 103:21, 125:13
RALL [1] - 5:13
Rall [1] - 10:18
ranching [1] - 157:25
random [1] - 209:3
Range [4] - 133:16, 235:14, 245:10, 245:13
range [4] - 142:2, 142:9, 160:22, 230:20
ranges [1] - 190:21
Raptor [1] - 7:7
rather [3] - 163:22, 191:7, 209:17
rating [1] - 212:5
reach [2] - 57:7, 59:10
reached [2] - 33:16, 120:15
reaches [2] - 128:22, 224:24
reaching [1] - 189:21
read [32] - 14:16, 31:7, 48:3, 48:17, 56:2, 56:10, 56:24, 60:10, 61:10, 69:16, 69:25, 72:9, 107:4, 115:12, 115:17, 115:21, 116:15, 116:22, 122:12, 124:12, 130:17, 141:18, 150:21, 150:22, 167:16, 180:21, 199:24, 236:14, 236:24, 246:18, 246:22
readily [1] - 108:21
reading [7] - 13:25, 14:2, 14:15, 94:5, 210:10, 211:14, 242:10
reads [2] - 28:8, 117:22
ready [1] - 52:1
real [17] - 15:19, 107:24, 108:18, 109:7, 131:22, 131:23, 132:9, 132:17, 132:20, 132:22, 136:13, 140:4, 161:12, 164:15, 165:17, 167:8
Realistic [2] - 9:9, 9:10
realistic [2] - 219:17, 219:20
reality [1] - 27:17
realize [2] - 84:6, 147:6
really [32] - 29:1, 50:9, 58:11, 62:7, 84:3, 84:21, 85:18, 99:18, 118:8, 132:8, 135:7, 137:9, 138:3, 138:20, 139:16, 142:6, 144:2, 147:14, 148:13, 161:7, 161:15, 161:21, 161:23, 164:14, 187:22, 212:7, 229:4, 236:21, 241:13, 245:2, 245:12, 248:4
realm [1] - 101:17
Realtime [2] - 250:6, 250:19
reason [12] - 39:10, 70:12, 79:13, 94:12, 140:18, 140:21, 140:24, 140:25, 189:8, 203:17, 207:20, 209:14
reasonable [9] - 14:15, 24:25, 25:23, 25:25, 58:18, 58:19, 58:21, 209:11, 222:21
reasonably [1] - 56:17
reasoning [1] - 90:25
reasons [5] - 106:5, 141:10, 145:7, 147:6, 203:18
rebar [1] - 186:11
Rebuttal [11] - 10:6, 10:6, 10:10, 10:10, 10:11, 10:11, 10:12, 30:20, 133:20, 171:18, 216:17
rebuttal [2] - 16:4, 16:6
recalling [1] - 239:21
receive [12] - 23:21, 23:23, 75:8, 75:15, 82:21, 83:23, 85:15, 99:16, 139:11, 139:14, 232:23, 234:21
received [17] - 21:2, 30:16, 35:11, 46:23, 47:12, 48:7, 48:10, 48:22, 48:23, 54:9, 77:13, 77:18, 82:20, 99:23, 111:25, 129:21, 220:21
receives [3] - 138:7, 139:9, 234:19
receiving [1] - 28:8
recent [1] - 235:17
recently [2] - 20:10, 111:12
receptor [18] - 120:7, 217:20, 219:8, 220:5, 220:6, 225:19, 226:17, 234:14, 234:19, 235:5, 235:6, 242:8, 242:15, 245:14, 248:21, 249:1, 249:7, 249:10
Receptor [2] - 9:8, 9:10
receptors [19] - 119:22, 217:15, 217:19, 218:14, 220:3, 225:11, 234:21, 235:1, 237:5, 237:18, 238:1, 238:16, 238:20, 239:9, 242:7, 242:11, 248:8, 248:9
recess [7] - 81:16, 81:18, 131:8, 131:10, 170:13, 214:22, 249:23
recognize [2] - 53:18, 53:20
recollection [1] - 175:5
recommend [3] - 174:6, 175:23, 199:5
recommendation [5] - 197:5, 198:6, 199:3, 231:4, 231:7
recommendations [3] - 197:2, 198:15, 200:1
recommended [12] - 13:19, 190:19, 192:23, 197:7, 197:13, 199:11, 199:12, 200:8, 213:11, 223:24, 231:3, 231:11
record [22] - 16:19, 19:11, 24:3, 24:5, 24:24, 25:2, 30:1, 38:3, 42:1, 54:16, 56:6, 56:8, 93:16, 110:3, 111:9, 124:13, 131:20, 169:18, 170:10, 170:21, 215:5, 246:15
recording [2] - 181:6, 224:2
RECROSS [2] - 104:2, 105:5
Recross [7] - 3:7, 3:8, 4:7, 4:8, 4:8, 4:9, 5:23
recross [2] - 100:15, 170:7
RECROSS-EXAMINATION [2] - 104:2, 105:5
Recross-Examination [7] - 3:7, 3:8, 4:7, 4:8, 4:8, 4:9, 5:23
recrossing [1] - 103:16
recycle [3] - 186:25, 187:11, 187:19
red [3] - 23:13, 108:10, 109:19
redacted [1] - 45:20
Redirect [6] - 3:7, 3:21, 4:7, 5:23, 6:6, 6:12
redirect [16] - 98:1, 98:14, 98:15, 100:14, 100:16, 100:22, 100:25, 102:16, 103:11, 105:8, 110:14, 131:1, 131:2, 170:4, 170:6, 213:5
REDIRECT [2] - 98:16, 213:8
redline [1] - 54:2
reduce [13] - 80:24, 145:3, 179:11, 180:22, 181:14, 181:17, 182:2, 182:8, 182:10, 182:12, 182:14, 183:19, 183:23
reduced [7] - 45:15, 57:3, 123:17, 180:24, 182:4, 200:9, 235:21
reducing [5] - 181:9, 182:15, 182:20, 183:2

reduction [2] - 183:19, 244:23
refer [3] - 47:18, 47:20, 114:21
reference [3] - 122:12, 232:21, 235:10
referenced [3] - 173:25, 197:22, 235:7
references [1] - 24:5
referred [4] - 35:22, 129:14, 194:22, 199:6
referring [6] - 32:22, 33:1, 54:5, 181:4, 223:8, 246:19
refers [1] - 175:5
reflect [4] - 31:4, 61:22, 80:17, 123:12
reflected [2] - 41:16, 214:4
reflection [3] - 225:25, 227:17, 242:22
reflective [3] - 57:18, 57:23, 224:12
reflects [1] - 93:16
refresh [2] - 197:20, 199:18
refuse [10] - 71:8, 71:9, 71:17, 185:25, 186:1, 186:9, 186:11, 186:12, 187:5, 187:8
regard [10] - 20:18, 21:13, 99:3, 100:7, 103:10, 131:24, 132:3, 134:2, 159:23, 243:13
regarding [19] - 7:19, 7:20, 9:21, 9:23, 59:23, 60:24, 76:25, 77:20, 87:16, 105:8, 105:9, 105:19, 123:5, 126:3, 126:4, 126:22, 127:14, 149:17, 172:25
regardless [6] - 43:10, 45:2, 166:21, 206:4, 232:14, 241:7
regards [1] - 62:9
region [2] - 13:1, 208:17
registered [1] - 149:21
Registered [2] - 250:5, 250:19
regulation [1] - 25:19
regulations [5] - 110:5, 110:10, 179:13, 241:3, 241:7
regulatory [1] - 30:7
rehash [1] - 239:20
reimbursement [1] - 83:24
REISS [22] - 15:13, 17:9, 17:17, 18:20, 29:16, 54:18, 56:3, 56:7, 74:15, 74:18, 81:8, 105:4, 105:6, 107:18, 115:12, 125:22, 126:2, 128:2, 195:25, 196:3, 201:1, 214:15
Reiss [11] - 1:23, 3:6, 3:8, 3:11, 3:20, 5:5, 6:8, 6:11, 6:12, 6:14, 17:9
reiterate [1] - 14:12
Related [1] - 9:15
related [3] - 151:3, 159:16, 178:11
relating [1] - 199:10
relation [3] - 159:22, 165:13, 206:6
relationship [4] - 26:16, 86:15, 159:9, 161:10
relative [2] - 164:3, 245:13
relatively [2] - 187:9, 222:11
relegated [2] - 80:22, 81:4
relevancy [1] - 240:8
relevant [3] - 28:15, 56:17, 192:14
relief [2] - 82:6, 119:15
rely [1] - 220:20
remainder [3] - 185:1, 200:15, 205:14
remaining [2] - 77:13, 200:6
remarks [1] - 160:13
remediation [3] - 36:6, 37:1, 37:4
remember [7] - 61:4, 93:2, 96:24, 144:16, 180:1, 197:16, 238:2
remembered [1] - 185:14
remind [2] - 28:22, 179:15
remove [1] - 151:15
removed [1] - 51:2
rendered [1] - 169:20
renew [2] - 44:25, 78:21
renewable [3] - 83:10, 111:22, 180:11
renewals [1] - 78:25
renewed [1] - 79:8
repeat [8] - 40:11, 46:24, 55:9, 64:17, 84:8, 86:3, 107:1, 198:7
repeating [1] - 14:13
rephrase [6] - 73:14, 86:4, 88:12, 107:3, 174:22, 199:22
rephrased [1] - 39:17
replace [3] - 31:2, 194:12, 194:13
replaced [1] - 20:11
replacing [1] - 71:5
reply [1] - 181:8
report [13] - 27:13, 134:1, 134:4, 135:3, 135:9, 159:3, 166:20, 235:4, 235:5, 237:14, 238:17, 238:22, 238:24
Report [12] - 7:5, 7:5, 7:6, 7:7, 7:7, 7:8, 7:8, 7:9, 9:6, 9:7, 27:8, 27:12
Reported [4] - 1:24, 8:4, 8:7, 8:9
Reporter [4] - 250:6, 250:19, 250:19
reporter [9] - 14:2, 29:22, 51:24, 107:4, 111:5, 131:16, 170:17, 215:1, 250:9
Reporting [1] - 1:25
reports [4] - 148:3, 234:8, 234:17, 239:12
repowering [4] - 121:17, 121:22, 122:1, 122:3
represent [8] - 19:25, 80:8, 80:11, 221:8, 224:7, 226:10, 231:2, 232:5
representative [1] - 230:23
representatives [1] - 32:9
represented [4] - 13:11, 16:2, 80:14, 159:15
representing [2] - 16:25, 17:2
represents [2] - 80:2, 224:5
reproducible [1] - 222:21
request [32] - 22:19, 42:4, 46:21, 47:4, 55:2, 55:8, 56:16, 58:11, 58:18, 60:4, 60:7, 62:16, 65:4, 69:5, 69:17, 70:10, 82:16, 99:24, 105:14, 106:2, 107:9, 114:22, 115:1, 116:11, 116:21, 120:24, 124:5, 127:12, 127:13, 178:2, 184:13
requested [6] - 55:3, 55:11, 82:20, 88:1, 146:18, 146:20
requesting [2] - 82:12, 147:5
Requests [2] - 67:7, 176:25
requests [7] - 32:25, 41:22, 88:5, 99:25, 100:3, 105:8
require [8] - 21:4, 41:10, 71:6, 86:1, 95:6, 175:12, 175:23, 185:24
required [14] - 37:14, 63:23, 73:17, 75:8, 78:21, 85:23, 93:18, 106:4, 172:23, 174:24, 175:2, 185:4, 195:2, 195:6
requirement [11] - 92:23, 110:6, 147:25, 166:19, 168:20, 168:25, 174:12, 176:9, 228:4, 233:15, 234:1
requirements [12] - 32:3, 35:17, 87:24, 88:2, 109:9, 122:8, 139:4, 172:22, 173:3, 193:9, 198:3, 233:7
requires [2] - 121:13, 165:25
reread [1] - 185:16
resale [1] - 201:13
research [7] - 141:25, 142:16, 149:2, 202:8, 202:9, 215:17, 215:18
reserved [1] - 184:22
residence [5] - 161:11, 164:1, 164:2, 226:2, 249:6
residences [2] - 24:25, 25:22
resident [1] - 94:17
residential [9] - 133:1, 134:17, 138:6, 143:3, 145:1, 147:2, 147:6, 149:4, 157:20
Residents [1] - 8:15
residents [3] - 93:6, 151:17, 153:14
resolved [1] - 18:2
resort [1] - 187:2
resource [3] - 90:7, 90:8, 216:1
Resources [11] - 7:5, 9:24, 30:4, 70:6, 70:13, 70:17, 71:20, 72:21, 72:23, 111:11, 114:1
resources [3] - 64:2, 70:3, 171:9
respond [4] - 65:21, 83:4, 89:13, 107:13
responded [4] - 60:3, 69:4, 98:25, 99:5
respondent [1] - 115:2
responding [1] - 200:24
response [40] - 21:8, 39:9, 42:3, 43:19, 49:19, 56:15, 58:24, 60:10, 60:18, 62:15, 64:13, 64:18, 65:15, 65:20, 65:21, 65:23, 66:15, 67:5, 67:18, 67:21, 67:23, 68:19, 68:21, 69:13, 91:8, 98:18, 99:3, 100:6, 102:22, 105:7, 114:22, 114:25, 122:10, 124:4, 125:4, 125:8, 160:9, 178:6, 184:13, 185:16
Response [1] - 10:12
responses [2] - 32:24, 45:8
Responses [5] - 10:23, 11:3, 11:4, 11:5, 11:9
responsibilities [3] - 113:24, 114:1, 228:17
responsibility [3] - 169:2, 169:13, 169:15
responsible [3] - 30:6, 71:23, 171:1
responsive [1] - 116:21
rest [2] - 29:4, 110:25
restate [2] - 96:10, 121:22

restaurant [1] - 163:20
restrooms [1] - 14:21
Result [1] - 9:9
resulted [1] - 80:25
resulting [2] - 190:15, 190:16
results [16] - 9:10, 10:9, 129:15, 129:22, 129:25, 130:1, 130:4, 200:9, 218:10, 218:11, 218:13, 220:3, 222:20, 223:3, 233:18, 234:9
Results [3] - 9:8, 9:10, 9:11
Resume [4] - 7:13, 7:14, 7:15, 7:17
resume [1] - 106:3
retail [3] - 201:9, 201:13, 201:15
retailing [1] - 140:1
retain [3] - 72:7, 118:19, 126:14
retains [1] - 118:19
reuse [1] - 187:12
revenues [1] - 123:17
Revenues [1] - 7:16
reverberate [1] - 242:19
review [8] - 32:13, 99:12, 132:1, 135:10, 165:21, 172:21, 180:5, 180:6
Review [1] - 8:16
reviewed [3] - 134:7, 135:4, 150:8
reviewing [1] - 60:24
reviews [1] - 99:7
revision [1] - 93:20
Rich [2] - 7:16, 192:12
RICH [1] - 4:10
Richard [2] - 7:17, 10:10
Richter [16] - 136:2, 140:13, 141:19, 141:20, 142:14, 142:17, 142:19, 148:4, 148:21, 150:14, 150:17, 155:10, 165:6, 166:5, 169:12
Richter's [2] - 143:21, 163:9
Richters [2] - 143:15, 167:17
RIDGE [1] - 1:4
Ridge [177] - 1:17, 7:3, 12:6, 13:9, 16:1, 16:4, 16:15, 16:17, 17:23, 19:1, 19:2, 21:8, 21:10, 22:16, 22:17, 24:8, 24:13, 24:19, 26:6, 28:23, 29:20, 30:5, 30:13, 31:13, 31:14, 31:16, 31:21, 32:13, 34:15, 36:12, 36:25, 42:2, 48:24, 54:19, 55:5, 55:6, 55:13, 55:14, 56:13, 56:15, 56:20, 56:21, 57:2, 58:3, 58:8, 58:10, 58:14, 58:15, 58:22, 59:3, 59:4, 59:7, 59:12, 59:24, 60:11, 60:25, 62:9, 62:16, 65:7, 65:9, 68:1, 68:3, 68:5, 68:7, 68:23, 69:5, 69:7, 69:11, 69:22, 70:5, 70:11, 70:16, 71:12, 71:15, 71:18, 71:21, 72:6, 72:8, 72:10, 72:13, 72:16, 72:18, 72:19, 72:22, 73:8, 75:15, 77:21, 78:20, 79:12, 93:3, 96:4, 96:5, 96:25, 97:1, 97:25, 103:7, 105:19, 105:20, 105:25, 106:12, 106:24, 107:5, 107:8, 110:14, 111:13, 112:17, 112:20, 112:25, 113:4, 113:16, 113:22, 113:25, 115:20, 115:25, 116:18, 116:25, 117:2, 117:13, 117:16, 117:22, 117:24, 118:5, 118:12, 118:16, 118:23, 119:6, 120:11, 120:14, 122:6, 124:15, 124:17, 125:1, 126:4, 126:8, 126:22, 126:25, 127:21, 131:13, 131:14, 131:24, 133:9, 170:4, 170:14, 170:25, 171:2, 171:10, 172:1, 172:10, 172:14, 175:11, 175:12, 178:5, 179:10, 183:8, 186:5, 192:2, 195:18, 206:7, 207:19, 213:5, 214:23, 215:9, 216:8, 217:3, 220:9, 220:21, 220:24, 221:13, 228:19, 228:24, 230:1, 230:7, 234:17, 238:9, 241:22, 243:13
rights [2] - 23:19, 121:10
Riina_Bray_IWT_ Niagara [1] - 10:23
ring [1] - 127:18
risk [8] - 76:8, 76:11, 76:13, 149:13, 151:10, 153:21, 193:2, 200:12
Rislov [1] - 1:14
RL-1 [1] - 7:17
RL-2 [1] - 7:17
RL-3 [1] - 7:18
RM-S-1 [1] - 9:14
RM-S-2 [1] - 9:14
RM-S-3 [1] - 9:15
RM-S-4 [1] - 9:15
RM-S-5 [1] - 9:17
RM-S-6 [1] - 9:18
RM-S-7 [1] - 9:19
road [11] - 103:12, 136:3, 139:19, 141:9, 142:5, 146:1, 161:16, 164:6, 167:18, 177:5, 246:9
roads [8] - 134:2, 136:11, 144:20, 147:12, 156:3, 161:25, 163:16, 177:8
Robert [1] - 9:13
ROBERT [1] - 4:14
Robish [26] - 1:21, 3:5, 3:15, 3:19, 4:8, 4:19, 6:5, 6:15, 17:1, 18:14, 18:15, 22:6, 29:12, 54:23, 73:3, 87:25, 105:1, 125:17, 125:18, 146:14, 146:15, 194:18, 194:19, 194:24, 214:12, 243:17
ROBISH [21] - 17:1, 17:6, 18:15, 18:18, 22:7, 29:13, 54:24, 73:4, 73:7, 74:12, 105:1, 125:18, 146:15, 146:17, 149:25, 194:19, 194:21, 195:1, 195:20, 214:13, 243:18
rocks [1] - 154:19
role [6] - 30:5, 111:13, 131:24, 170:25, 215:9, 246:6
roles [2] - 30:12, 111:21
roll [1] - 173:3
roll-up [1] - 173:3
roof [1] - 141:8
room [7] - 14:12, 15:6, 138:12, 247:8, 247:10, 247:11, 248:22
root [1] - 172:15
roots [1] - 188:10
rotates [1] - 193:21
rotor [5] - 196:10, 196:11, 196:12, 196:17, 219:13
rough [1] - 97:17
round [1] - 112:23
rows [1] - 152:21
RPR [1] - 1:24
rule [2] - 102:19, 241:2
rules [6] - 12:20, 106:19, 151:7, 241:2, 241:6, 241:8
ruling [2] - 15:22, 103:14
rulings [7] - 13:20, 13:21, 13:23, 27:19, 27:25, 106:5
run [4] - 28:17, 106:21, 137:17, 234:17
runaway [5] - 174:9, 174:15, 175:13, 175:18, 232:16
rural [7] - 143:2, 143:10, 144:21, 145:1, 147:2, 164:5, 235:11

S

S1 [4] - 11:12, 32:23, 38:6, 124:5
S19 [1] - 18:21
S2 [1] - 11:12
S3 [1] - 11:13
S4 [1] - 11:14
S5 [1] - 11:14
S6 [1] - 11:15
S7 [3] - 11:16, 18:22, 248:16
safe [12] - 80:11, 80:17, 89:21, 90:3, 100:7, 100:10, 100:11, 100:13, 175:12, 184:18, 185:1
safety [30] - 12:24, 23:17, 25:12, 106:4, 106:6, 107:25, 110:6, 173:21, 173:23, 173:25, 174:7, 174:16, 174:18, 175:8, 175:25, 178:21, 178:24, 193:1, 200:12, 202:1, 202:3, 202:5, 202:13, 202:18, 203:5, 203:11, 203:12, 203:16, 203:20, 204:11
sake [1] - 71:11
sale [10] - 85:12, 85:17, 114:11, 116:2, 127:22, 127:24, 145:5, 147:4, 165:24
sales [11] - 116:7, 118:15, 134:16, 134:18, 135:20, 136:5, 157:1, 157:9, 157:14, 216:5, 230:23
SAPPINGTON [1] - 5:3
Sappington [7] - 7:12, 9:20, 10:11, 100:4, 101:4, 122:22, 177:17
SARAH [1] - 5:3
Sarah [8] - 7:12, 9:20, 10:11, 100:4, 101:4, 122:21, 177:17
saturation [6] - 75:21, 76:1, 76:9, 76:11, 76:13, 207:24
sausage [1] - 64:1
save [1] - 91:15
saw [2] - 93:1, 212:3
scale [3] - 63:8, 97:5, 224:7
scan [1] - 205:9
scanning [1] - 97:17
scattered [1] - 208:24
scenario [2] - 167:16, 187:2
schedule [2] - 57:18, 57:24
scheduled [4] - 15:11, 58:24, 145:19, 145:20
school [2] - 132:7, 162:1

schools [3] - 144:22, 162:7, 163:15
Schumacher [9] - 1:17, 3:14, 4:11, 5:4, 16:16, 20:3, 20:18, 46:5, 178:6
SCHUMACHER [11] - 16:16, 17:25, 19:2, 19:16, 21:9, 21:16, 22:17, 131:14, 131:18, 136:17, 170:5
Science [1] - 112:1
science [2] - 112:4, 171:11
scientific [1] - 228:21
scientist [1] - 161:6
scope [5] - 22:23, 58:13, 68:24, 176:21, 222:6
Scores [1] - 8:9
screwing [1] - 244:7
scroll [1] - 213:25
SD [2] - 9:21, 9:23
se [5] - 1:20, 1:22, 16:3, 50:1, 68:17
sea [1] - 15:18
searches [5] - 64:14, 64:16, 64:19, 64:21, 65:1
Second [2] - 11:5, 11:5
second [16] - 33:3, 47:2, 50:20, 55:2, 60:7, 108:17, 117:6, 128:20, 141:2, 148:24, 175:24, 180:9, 189:5, 205:10, 207:1, 248:20
secondly [1] - 27:4
seconds [1] - 146:3
Secretary [1] - 149:21
section [4] - 14:20, 24:4, 36:11, 197:25
Section [12] - 36:6, 36:24, 38:13, 38:18, 38:19, 38:20, 38:23, 38:25, 39:1, 41:8, 122:14
securing [1] - 124:16
see [37] - 19:14, 28:13, 38:19, 39:1, 52:9, 52:16, 66:20, 67:4, 67:16, 76:18, 76:19, 76:20, 79:25, 88:12, 88:14, 99:19, 130:22, 150:7, 158:18, 160:12, 165:25, 178:24, 180:19, 187:4, 188:1, 204:10, 207:15, 207:22, 211:2, 213:18, 213:22, 235:20, 237:10, 237:17, 238:13, 238:15, 243:2
seeing [4] - 200:13, 231:6, 239:19
seek [3] - 113:5, 124:13, 147:16
seeking [4] - 18:3, 105:23, 197:9, 197:12
seeks [1] - 56:16
seem [8] - 25:19, 84:21, 90:23, 117:13, 140:22, 181:19, 197:24, 204:12
Seizures [2] - 8:19, 9:19
self [1] - 228:15
Self [3] - 8:4, 8:7, 8:9
Self-Reported [3] - 8:4, 8:7, 8:9
self-study [1] - 228:15
sell [5] - 85:10, 94:12, 141:21, 158:2, 158:16
seller [3] - 168:19, 168:25, 169:15
selling [2] - 111:15, 140:6
seminal [1] - 27:16
SEMS [1] - 128:17
send [1] - 182:23
senior [6] - 30:2, 60:6, 60:25, 101:11, 173:3, 215:16
sense [6] - 49:16, 58:21, 152:25, 191:7, 199:23, 210:10
sensitivity [2] - 134:20, 139:23
sensor [2] - 219:3
sensors [1] - 219:2
sent [1] - 148:6
sentence [4] - 31:7, 31:8, 130:17, 130:22
sentences [1] - 140:22
SEP [4] - 46:19, 46:22, 47:5, 62:17
separate [4] - 39:23, 45:12, 69:10, 71:19
separated [1] - 90:23
SEPs [1] - 62:18
September [13] - 30:19, 56:21, 59:6, 60:15, 63:18, 64:11, 112:8, 133:19, 171:17, 184:19, 185:6, 211:15, 216:16
series [2] - 60:13, 242:7
serious [1] - 12:21
serve [1] - 246:23
served [1] - 132:14
service [1] - 15:19
services [6] - 72:3, 144:21, 147:11, 161:16, 161:24, 164:6
servitude [1] - 28:4
session [2] - 81:18, 106:9
Set [4] - 11:3, 11:5, 11:6, 11:9
set [8] - 12:17, 67:8, 97:16, 109:10, 145:22, 194:6, 194:7, 194:9
setback [4] - 32:5, 175:5, 176:1, 176:7
setbacks [7] - 93:21, 137:20, 149:10, 155:2, 160:18, 177:9, 197:21
seven [1] - 132:21
seventh [1] - 133:10
several [6] - 16:22, 34:4, 63:4, 119:19, 156:22, 239:22
shadow [50] - 9:10, 23:23, 24:1, 24:15, 27:20, 28:1, 35:4, 36:7, 37:1, 37:5, 37:11, 37:15, 40:9, 40:15, 114:4, 122:15, 134:21, 137:6, 138:7, 139:2, 139:5, 139:10, 161:4, 215:10, 216:2, 216:12, 217:4, 218:17, 220:1, 228:18, 234:13, 237:3, 237:4, 239:2, 239:6, 240:19, 247:3, 247:5, 247:6, 247:9, 247:14, 247:15, 247:18, 247:24, 248:3, 248:11, 248:13, 248:17, 249:1
Shadow [5] - 7:9, 8:20, 9:7, 9:9, 10:8
shaft [4] - 196:10, 196:11, 196:13, 196:18
shall [2] - 198:21, 198:23
shape [2] - 156:15, 231:23
sharp [1] - 245:4
Shawn [1] - 173:4
sheer [1] - 224:6
sheet [2] - 116:13, 116:19
sheets [1] - 178:21
shelf [1] - 28:13
ship [2] - 15:18, 20:1
shipped [3] - 185:4, 194:4, 194:5
shipping [3] - 71:8, 185:22, 185:25
Shirley [1] - 10:21
short [16] - 30:9, 31:11, 73:4, 81:16, 81:18, 111:18, 112:14, 132:4, 134:5, 170:13, 171:4, 171:24, 174:21, 214:22, 215:11, 217:1
shorten [1] - 159:10
shorter [2] - 90:2, 90:6
shorthand [2] - 250:9
shortly [1] - 179:22
show [6] - 16:19, 51:4, 51:15, 63:25, 241:4, 242:20
showing [7] - 53:14, 53:23, 169:1, 207:16, 238:19, 238:21
shows [3] - 48:5, 101:11, 161:18
shut [3] - 153:4, 153:7, 188:24
shy [3] - 87:13, 190:9
sic [3] - 34:16, 96:7, 183:13
side [6] - 82:10, 83:19, 90:15, 101:16, 139:19, 207:11
sides [1] - 145:21
sight [1] - 108:6
sign [1] - 35:18
signal [1] - 182:23
signed [2] - 120:10, 249:8
significant [4] - 31:18, 148:15, 156:17, 157:10
significantly [1] - 187:5
signing [2] - 78:8, 78:9
Silicon [1] - 164:10
similar [9] - 110:8, 135:18, 171:9, 172:18, 178:9, 182:9, 183:21, 197:24, 228:21
simply [8] - 28:17, 28:19, 35:10, 89:23, 157:4, 163:13, 208:11, 241:9
simulations [1] - 242:10
simultaneously [1] - 219:5
single [2] - 155:24, 231:11
sister [2] - 60:25, 72:15
site [27] - 35:16, 62:13, 63:2, 74:1, 80:3, 80:5, 95:4, 99:13, 102:8, 102:12, 106:21, 106:22, 108:8, 116:9, 129:25, 186:21, 187:15, 187:17, 194:10, 195:9, 195:14, 197:10, 203:1, 210:15, 210:24, 212:6
site-by-site [1] - 99:13
sited [1] - 177:5
sites [3] - 76:12, 93:14, 159:6
siting [7] - 12:23, 32:5, 32:7, 35:17, 35:20, 78:15, 90:3
situation [15] - 37:21, 59:17, 94:2, 138:17, 143:7, 143:17, 158:23, 159:4, 166:12, 166:24, 174:15, 175:1, 175:10, 176:13, 233:4
situations [3] - 108:11, 174:9, 199:6
six [3] - 75:7, 132:13, 172:8
size [7] - 63:8, 102:13, 134:8, 137:24, 140:19, 144:7, 202:4
sizing [1] - 90:13
skilled [1] - 26:2
Skipper [1] - 7:6
Skipper-Poweshiek [1] - 7:6

Skipperling [1] - 7:7
sky [1] - 222:12
slant [1] - 96:17
slated [1] - 57:7
sleek [1] - 161:19
Sleep [3] - 8:5, 8:6, 8:7
slightly [2] - 124:2, 126:5
slow [1] - 182:25
slowly [1] - 14:16
small [5] - 20:22, 134:13, 142:10, 187:9, 215:15
smaller [5] - 34:23, 90:10, 90:11, 142:21, 142:24
smell [2] - 163:4, 163:6
snow [3] - 224:14, 224:16, 224:20
snow-covered [1] - 224:20
so-called [2] - 24:1, 35:22
social [1] - 12:21
Society's [2] - 9:21, 9:23
soft [1] - 224:7
software [24] - 180:12, 180:14, 180:17, 180:19, 180:22, 181:2, 181:20, 182:2, 182:5, 182:22, 183:3, 183:25, 216:6, 216:9, 216:11, 229:7, 230:24, 231:2, 231:5, 231:9, 231:14, 234:12
soil [1] - 156:2
solar [1] - 159:24
sold [11] - 72:11, 72:14, 83:5, 103:5, 113:16, 118:12, 126:8, 128:18, 140:21, 147:3, 157:14
sole [1] - 140:21
solely [1] - 99:2
solid [1] - 99:19
solve [1] - 241:11
someone [16] - 15:4, 36:20, 39:14, 40:6, 41:6, 70:25, 71:1, 78:8, 78:9, 94:12, 101:1, 157:25, 166:1, 168:22, 176:14, 191:20
sometime [2] - 179:16, 249:16
sometimes [6] - 92:8, 144:20, 187:22, 187:23, 203:8, 210:3
somewhat [2] - 61:23, 109:14
somewhere [5] - 130:12, 166:22, 208:6, 208:17, 227:6
son [1] - 247:11
soon [1] - 57:11
sorry [36] - 18:22, 31:13, 33:3, 36:8, 38:15, 38:22, 40:11, 41:20, 54:7, 55:19, 64:17, 67:1, 68:20, 74:3, 74:25, 75:2, 79:2, 96:15, 96:22, 107:1, 114:23, 115:6, 117:6, 118:7, 120:23, 126:18, 130:18, 172:2, 185:15, 189:7, 198:7, 212:11, 219:19, 236:13, 236:18, 239:17
sort [10] - 33:21, 35:15, 42:12, 43:8, 97:16, 225:19, 226:3, 242:21, 242:22, 245:22
Sorted [2] - 9:8, 9:10
Sound [9] - 7:8, 7:18, 8:7, 9:6, 9:8, 9:9, 9:16, 10:7
sound [84] - 24:16, 24:25, 26:12, 55:4, 55:6, 55:11, 55:13, 56:12, 58:11, 59:21, 119:21, 137:6, 179:12, 179:24, 182:2, 182:3, 182:6, 183:19, 188:6, 188:8, 188:11, 188:17, 188:20, 189:10, 191:2, 191:17, 191:20, 191:21, 192:12, 216:12, 217:3, 217:4, 217:12, 217:13, 217:15, 217:18, 218:10, 220:25, 223:10, 224:8, 224:10, 224:12, 224:16, 224:23, 225:20, 226:1, 226:4, 227:17, 227:18, 228:18, 230:19, 232:4, 232:5, 232:8, 232:9, 232:24, 235:15, 237:14, 237:21, 237:22, 238:14, 238:15, 238:19, 238:21, 239:3, 239:7, 239:11, 239:14, 240:19, 240:20, 241:15, 241:21, 241:23, 242:1, 242:3, 242:10, 243:9, 243:25, 244:4, 244:15, 246:16
sounds [8] - 58:14, 61:23, 61:24, 177:13, 190:4, 190:9, 240:21, 244:4
source [6] - 31:17, 92:3, 222:11, 222:23, 223:13, 225:18
sources [1] - 222:8
Sources [2] - 8:12, 9:17
South [37] - 1:25, 2:4, 12:3, 12:11, 12:18, 16:20, 17:2, 27:17, 28:2, 30:14, 30:16, 31:15, 43:14, 43:25, 66:19, 69:23, 75:22, 83:15, 83:22, 83:24, 85:3, 88:5, 99:24, 133:4, 133:6, 133:7, 133:12, 133:14, 135:1, 135:21, 137:8, 154:8, 165:22, 230:22, 250:7, 250:13
SOUTH [2] - 1:2, 250:1
south [3] - 155:1, 207:11, 216:5
southeast [3] - 90:22, 208:24, 209:4
southeastern [1] - 123:21
Southeastern [1] - 171:14
space [1] - 247:7
Space [1] - 75:19
spaced [5] - 197:5, 197:7, 198:21, 198:24, 200:1
spaces [1] - 235:11
spacial [2] - 102:13, 245:13
spacing [12] - 190:19, 192:23, 197:1, 198:5, 198:14, 198:18, 199:12, 199:14, 199:15, 200:8, 213:20, 214:3
speaking [4] - 14:10, 144:25, 149:18, 163:10
speaks [1] - 42:5
special [1] - 201:11
Special [4] - 47:6, 47:12, 221:1, 221:3
specialization [1] - 132:8
specialized [1] - 205:25
specializes [1] - 131:22
specific [12] - 22:25, 60:16, 109:17, 133:7, 135:9, 141:18, 150:18, 184:21, 193:19, 194:9, 194:14, 230:10
specifically [8] - 123:1, 141:13, 144:25, 146:21, 184:22, 194:7, 221:22, 222:7
specifications [3] - 217:6, 218:18, 232:20
specifics [2] - 72:5, 122:22
speculate [1] - 224:18
speculating [1] - 191:3
speculative [1] - 157:17
speed [13] - 145:25, 164:19, 182:14, 182:15, 182:16, 182:17, 182:20, 182:25, 183:1, 188:12, 210:6, 232:11, 232:14
speeds [3] - 137:16, 218:22, 232:10
spelled [1] - 70:6
spend [1] - 235:24
spent [3] - 111:24, 215:14, 215:19
spherical [2] - 231:24
spill [1] - 67:14
spilled [1] - 190:13
spin [1] - 182:16
spinning [3] - 188:15, 188:25, 196:20
split [1] - 142:22
sponsor [1] - 38:7
sponsored [3] - 20:8, 60:18, 65:23
SPP [15] - 111:17, 112:21, 112:23, 113:3, 128:15, 128:16, 128:22, 128:23, 129:6, 129:24, 130:2, 211:2, 211:20, 212:19, 212:24
spray [1] - 152:12
sprayer [1] - 137:15
sprayers [2] - 137:14, 152:25
spraying [5] - 137:13, 138:5, 145:11, 145:17, 152:15
spread [3] - 93:23, 138:1, 163:21
spreading [1] - 208:14
square [3] - 143:23, 144:1, 219:4
SS [1] - 250:2
SS-S-1 [1] - 9:21
SS-S-2 [1] - 9:23
STAFF [1] - 1:13
Staff [36] - 1:23, 11:3, 11:4, 15:12, 17:8, 17:10, 18:19, 18:22, 20:4, 20:15, 21:19, 29:15, 29:16, 32:11, 32:23, 32:24, 54:17, 74:14, 81:8, 98:18, 100:19, 102:20, 103:20, 105:3, 107:18, 125:21, 128:2, 150:3, 151:10, 177:22, 195:24, 210:2, 213:10, 214:14, 243:20, 246:14
Staff's [6] - 11:3, 11:4, 11:9, 16:3, 124:4, 124:5
STAFF'S [3] - 5:19, 6:2, 11:11
stake [1] - 72:13
stand [5] - 67:23, 69:12, 79:16, 104:12, 189:8
standard [10] - 25:4, 27:5, 34:5, 37:13, 106:4, 161:11, 221:19, 221:22, 221:25
standardized [1] - 222:14
standardizing [1] - 222:19
standards [2] - 25:16, 35:20

standing [3] - 22:19, 23:8, 139:18
standpoint [2] - 90:12, 241:3
stands [4] - 27:6, 68:16, 186:13, 186:18
Stanton [1] - 27:9
start [14] - 21:7, 22:15, 23:6, 23:11, 29:19, 100:17, 103:16, 128:5, 182:6, 183:6, 193:7, 195:12, 195:15, 249:21
started [4] - 44:6, 64:8, 69:11, 208:21
starting [2] - 46:6, 233:5
starts [4] - 38:4, 213:15, 213:18, 213:19
STATE [2] - 1:2, 250:1
State [17] - 9:21, 9:23, 13:15, 13:16, 31:15, 82:12, 83:15, 85:3, 85:25, 112:4, 133:3, 133:6, 140:3, 148:6, 149:22, 165:22, 250:7
state [34] - 16:21, 24:18, 26:15, 29:25, 31:25, 32:3, 35:17, 49:3, 62:16, 76:15, 82:3, 83:9, 85:5, 85:19, 85:22, 86:8, 88:8, 111:8, 121:10, 128:14, 129:25, 131:19, 152:12, 160:4, 170:20, 179:9, 186:22, 189:25, 201:7, 204:16, 215:4, 230:25, 231:17, 241:9
statement [46] - 19:21, 22:14, 22:15, 22:18, 22:20, 23:3, 23:6, 23:11, 29:2, 29:5, 29:10, 29:16, 34:10, 36:22, 41:15, 60:22, 67:23, 78:7, 78:14, 82:21, 86:7, 91:25, 92:1, 92:2, 104:7, 116:13, 116:20, 150:11, 151:1, 151:21, 167:3, 184:10, 198:21, 198:23, 199:2, 199:10, 199:19, 221:17, 223:10, 223:17, 226:23, 229:23, 232:2, 242:5, 245:11, 245:12
statements [2] - 22:13, 169:23
states [6] - 83:21, 130:9, 132:23, 137:11, 184:14, 222:7
States [20] - 65:9, 65:10, 65:16, 65:19, 66:2, 71:23, 72:11, 72:14, 83:11, 111:15, 111:25, 112:18, 116:1, 118:3, 118:4, 126:21, 126:25, 215:22, 222:5, 222:13
stating [2] - 86:1, 200:18
Status [3] - 9:4, 10:4, 10:17
status [3] - 78:24, 79:11, 122:9
statute [6] - 23:16, 28:7, 28:8, 28:10, 106:8, 106:13
statutes [1] - 22:22
stay [2] - 96:6
step [3] - 110:17, 131:4, 170:8
stepped [1] - 245:15
Steven [1] - 10:18
still [20] - 15:11, 23:7, 34:24, 40:9, 60:7, 60:16, 62:5, 75:8, 78:20, 81:23, 98:19, 107:22, 130:3, 136:14, 179:9, 179:14, 183:5, 184:14, 201:19, 248:2
stipulated [4] - 17:18, 18:2, 18:12, 19:9
stock [1] - 167:1
stop [3] - 174:16, 174:17, 183:6
storage [1] - 185:3
story [3] - 71:21, 144:23
Strandburg [1] - 17:1
strategically [2] - 90:9, 205:8
strength [1] - 25:9
Stress [1] - 8:15
stricken [1] - 51:1
strike [6] - 17:14, 18:1, 18:4, 50:16, 52:16, 53:16
Strike [5] - 19:12, 20:17, 20:22, 21:12, 22:11
strike-out [2] - 52:16, 53:16
strike-outs [1] - 50:16
strong [1] - 155:6
strongest [1] - 162:22
struck [2] - 52:18, 194:11
structure [8] - 50:17, 193:3, 193:10, 193:11, 217:9, 218:24, 225:5, 242:16
structured [1] - 40:9
structures [22] - 9:10, 76:6, 157:11, 193:1, 200:11, 218:2, 218:3, 218:4, 218:5, 218:7, 218:9, 218:15, 220:2, 233:15, 233:16, 233:25, 234:3, 234:5, 234:7, 234:11, 238:2, 241:24
struggling [2] - 211:17, 212:8
student [1] - 215:23
studied [3] - 133:10, 148:5, 155:11
Studies [2] - 7:10, 7:10
studies [26] - 95:19, 111:17, 112:23, 113:3, 122:12, 122:19, 122:23, 123:5, 128:21, 169:17, 215:10, 217:4, 218:10, 219:16, 221:6, 228:18, 228:19, 229:9, 229:22, 229:23, 234:16, 235:15, 235:19, 237:4, 239:3, 239:7
study [33] - 55:4, 55:11, 56:12, 56:16, 58:11, 123:1, 150:14, 150:16, 150:19, 155:14, 159:23, 159:24, 217:4, 218:11, 219:2, 220:3, 220:20, 220:25, 221:9, 221:17, 228:15, 229:17, 230:2, 230:10, 230:13, 237:22, 238:1, 238:21, 239:11, 241:13, 241:15, 241:21, 245:19
Study [3] - 8:5, 9:6, 9:7
studying [3] - 128:16, 139:1, 140:5
style [1] - 178:4
subject [11] - 13:12, 13:18, 15:22, 20:16, 20:25, 21:12, 22:11, 71:19, 101:16, 119:16, 134:2
submit [2] - 26:5, 241:4
submitted [12] - 47:23, 49:1, 52:14, 77:3, 218:12, 237:22, 239:1, 239:3, 239:11, 240:11, 240:17, 241:21
subset [4] - 165:9, 236:13, 236:17
subsidiary [5] - 70:5, 70:17, 72:22, 118:1, 118:16
subsidy [7] - 82:3, 82:12, 82:21, 83:15, 84:22, 85:3, 85:19
substantial [1] - 25:11
substantially [4] - 12:24, 23:17, 26:7, 26:13
substation [1] - 205:13
subtract [1] - 223:11
successful [1] - 63:5
successfully [1] - 32:2
sudden [1] - 152:8
sufficient [1] - 25:16
suggest [1] - 179:1
suitable [1] - 91:3
suited [1] - 104:20
SULLY [1] - 250:3
summary [1] - 16:10
summon [1] - 149:6
sun [8] - 28:17, 83:10, 162:11, 219:14, 219:18, 219:21, 248:1
sunshine [3] - 218:23, 219:23, 235:10
supervisory [1] - 101:7
supplement [1] - 88:21
supplemental [2] - 16:5, 64:11
Supplemental [29] - 7:23, 8:22, 9:5, 9:12, 9:12, 9:13, 9:20, 10:3, 10:12, 11:4, 11:15, 30:18, 78:19, 78:23, 79:2, 112:8, 112:20, 119:3, 119:12, 133:18, 135:11, 135:14, 140:12, 150:9, 171:17, 189:17, 196:25, 216:15, 235:21
supplementary [1] - 210:5
supplemented [1] - 65:17
supplied [1] - 123:9
suppliers [1] - 109:6
supply [2] - 109:3, 110:10
support [9] - 79:8, 112:22, 113:3, 140:20, 160:1, 166:9, 169:21, 216:6, 230:23
supported [1] - 111:17
supporting [1] - 172:25
supports [1] - 171:1
supposed [2] - 98:7, 185:12
Supreme [1] - 13:16
surface [4] - 152:20, 224:8, 225:23, 225:24
surprise [1] - 128:25
surprised [1] - 129:2
surprises [1] - 64:25
surround [1] - 26:6
surrounding [1] - 80:25
Survey [6] - 7:5, 7:5, 7:7, 7:7, 7:8, 10:21
survey [1] - 207:21
surveyed [1] - 234:7
surveys [1] - 44:19
suspect [1] - 23:9
suspicion [1] - 37:16
sustain [6] - 38:2, 39:20, 50:7, 163:15, 192:18, 240:24
Swanson [36] - 1:18, 3:4, 3:10, 3:14, 4:4, 4:7, 4:11, 4:18, 5:11, 5:14, 5:17, 5:21, 6:4, 6:14, 15:14, 16:18, 16:20, 18:7, 19:4,

19:15, 21:8, 22:20, 23:10, 26:18, 32:18, 39:8, 43:18, 54:21, 78:2, 100:17, 102:15, 113:12, 136:20, 173:13, 214:8, 220:15
SWANSON [34] - 15:16, 16:19, 18:8, 19:6, 19:21, 19:24, 20:20, 21:14, 21:18, 23:12, 26:20, 26:24, 27:3, 29:4, 32:20, 39:10, 42:10, 42:18, 43:20, 46:13, 54:22, 100:18, 102:18, 103:3, 103:20, 113:14, 114:14, 136:22, 140:7, 173:14, 214:9, 220:17, 226:22, 227:19
SWCA [2] - 9:21, 9:23
swear [1] - 96:2
swindling [1] - 108:4
switch [1] - 247:12
sworn [1] - 13:12
System [1] - 205:2
system [15] - 87:2, 102:6, 105:24, 106:15, 106:16, 107:9, 128:22, 173:2, 205:1, 205:5, 205:7, 205:14, 206:8, 215:22
systems [8] - 26:5, 26:9, 106:9, 108:18, 128:23, 129:24, 130:2, 201:8

T

T-line [1] - 69:11
Table [1] - 23:22
table [5] - 23:25, 123:9, 123:12, 124:12, 244:25
Tabular [2] - 9:8, 9:10
talks [1] - 210:6
tall [4] - 76:7, 207:18, 207:22, 207:25
taller [1] - 90:7
tangible [1] - 149:19
target [3] - 59:6, 225:5, 225:8
targeting [1] - 77:4
task [1] - 156:21
taste [1] - 164:17
Tatanka [2] - 97:2
taught [1] - 132:18
tax [6] - 83:24, 123:9, 123:12, 123:17, 123:23
Tax [1] - 7:16
taxed [2] - 123:24, 123:25
taxes [3] - 31:19, 38:23, 164:12
taxing [2] - 134:11, 163:18
team [11] - 32:1, 32:10, 63:24, 66:10, 91:8, 95:4, 97:20, 104:9, 107:13, 172:16, 191:19
teams [1] - 31:22
technicians [1] - 216:11
technologies [1] - 99:14
technology [9] - 99:15, 102:9, 106:18, 106:21, 106:22, 108:15, 108:25, 171:12, 179:11
teenagers [1] - 182:9
Tehachapi [1] - 187:16
Telecommunication [1] - 7:10
temporary [1] - 31:19
tend [3] - 25:18, 137:2, 228:10
tendency [1] - 162:5
TENS [1] - 20:10
term [6] - 33:13, 34:1, 164:3, 227:6, 227:9, 228:5
terminated [1] - 151:15
terminology [1] - 105:16
terms [2] - 13:6, 223:12
terrain [3] - 152:22, 217:7, 218:20
territorial [1] - 28:14
territory [1] - 28:12
test [2] - 164:17, 225:4
testified [9] - 85:10, 133:13, 159:8, 159:12, 159:19, 176:22, 196:25, 244:11, 244:17
testify [2] - 15:14, 50:3
testifying [2] - 13:11, 50:1
testimonies [1] - 64:11
testimony [75] - 16:6, 16:7, 16:9, 16:11, 18:2, 20:16, 20:21, 21:12, 21:13, 21:21, 30:17, 30:24, 31:12, 32:22, 34:11, 40:8, 41:19, 43:23, 46:18, 46:20, 52:6, 52:8, 53:5, 74:23, 75:7, 83:8, 88:8, 93:2, 100:1, 101:11, 105:11, 112:12, 112:15, 113:18, 116:24, 117:21, 126:3, 126:7, 131:4, 133:24, 134:6, 147:22, 148:3, 151:23, 158:5, 160:3, 171:22, 171:25, 176:20, 176:22, 180:15, 187:24, 191:1, 196:13, 197:15, 197:23, 198:9, 199:17, 199:19, 200:2, 201:6, 210:3, 210:6, 211:16, 212:15, 213:23, 214:4, 214:17, 216:24, 217:2, 228:1, 235:7, 244:14, 245:21, 248:23
Testimony [52] - 7:12, 7:12, 7:13, 7:14, 7:15, 7:16, 7:23, 8:22, 9:5, 9:12, 9:12, 9:13, 9:20, 10:3, 10:6, 10:6, 10:10, 10:10, 10:11, 10:11, 10:12, 11:12, 11:12, 11:13, 11:14, 11:14, 11:15, 30:19, 30:21, 78:19, 78:23, 79:3, 112:6, 112:8, 112:20, 119:4, 119:12, 133:18, 133:20, 135:11, 135:14, 140:12, 150:9, 171:15, 171:17, 171:18, 189:17, 196:25, 216:14, 216:15, 216:17, 235:21
tests [1] - 228:21
thankful [2] - 32:10, 32:12
THE [148] - 1:1, 1:2, 1:4, 1:10, 44:7, 44:11, 44:15, 53:20, 54:7, 54:9, 79:24, 82:4, 82:13, 82:17, 82:23, 83:1, 83:7, 83:17, 84:6, 84:14, 84:18, 84:24, 85:12, 85:15, 85:20, 86:3, 86:11, 86:16, 86:25, 87:12, 87:18, 87:22, 88:3, 88:6, 88:17, 88:20, 89:2, 89:11, 89:16, 89:19, 89:25, 90:3, 91:2, 91:12, 91:17, 91:19, 92:6, 92:11, 92:17, 92:25, 93:9, 93:19, 94:7, 94:21, 95:16, 96:10, 96:15, 96:19, 96:22, 97:3, 97:14, 101:5, 101:9, 101:14, 101:21, 101:24, 102:7, 102:11, 108:3, 108:12, 108:23, 109:14, 109:24, 128:20, 129:21, 130:14, 130:17, 130:21, 146:12, 152:17, 153:16, 154:4, 154:7, 154:9, 154:12, 154:17, 154:21, 155:21, 157:3, 158:8, 159:1, 159:14, 159:21, 160:18, 161:13, 162:8, 162:13, 162:17, 162:20, 163:13, 164:4, 165:2, 165:11, 165:19, 166:4, 166:8, 166:23, 167:23, 168:14, 169:5, 169:16, 191:5, 195:22, 201:5, 201:15, 201:21, 202:5, 202:22, 203:16, 204:3, 204:16, 205:1, 205:23, 206:11, 206:16, 206:20, 206:25, 207:5, 207:16, 207:19, 208:8, 208:14, 209:5, 209:15, 209:21, 209:25, 210:11, 210:14, 210:21, 211:7, 211:10, 212:2, 212:11, 212:17, 212:22, 213:3, 214:18
themselves [4] - 174:5, 179:8, 193:4, 204:9
theoretical [1] - 25:24
theories [1] - 49:16
theory [1] - 247:17
thereafter [1] - 179:22
therefore [1] - 116:20
they've [1] - 137:10
thinking [5] - 68:22, 109:17, 110:19, 175:8, 175:19
thinks [1] - 43:16
third [8] - 31:2, 31:5, 57:14, 62:20, 67:7, 108:15, 123:17, 123:20
Third [1] - 11:3
thirds [1] - 108:16
THOMPSON [1] - 3:17
Thompson [22] - 7:13, 7:13, 9:12, 10:11, 60:3, 60:19, 70:22, 74:4, 74:5, 74:10, 89:12, 91:12, 98:13, 104:11, 104:19, 125:12, 125:14, 170:16, 170:22, 173:20, 207:12, 211:14
Thompson's [1] - 60:10
thoughts [1] - 108:22
thread [1] - 181:25
threat [1] - 12:20
three [31] - 24:12, 32:4, 73:8, 73:21, 73:22, 78:21, 78:25, 79:1, 80:16, 87:14, 103:3, 104:5, 116:14, 116:20, 117:18, 156:24, 157:11, 160:23, 161:9, 194:12, 195:2, 195:4, 198:4, 198:9, 198:13, 205:5, 205:6, 218:14, 220:2, 221:6, 238:13
three-quarter [1] - 87:14
three-quarters [1] - 104:5
threes [1] - 194:5
threshold [1] - 123:1
thresholds [1] - 237:3
throughout [7] - 13:22, 17:13, 134:13, 135:1, 135:7, 146:24, 222:16

throw [9] - 108:19, 111:2, 149:8, 194:1, 202:6, 203:13, 229:22, 229:23, 230:2
throwing [1] - 76:15
thrown [2] - 202:7, 202:11
Thursday [1] - 15:15
tie [1] - 181:24
tied [1] - 116:7
timely [1] - 87:16
tip [14] - 134:22, 160:24, 161:2, 174:1, 174:12, 174:18, 174:21, 176:1, 176:6, 182:13, 188:12, 202:2, 204:1, 204:7
tips [2] - 183:21, 183:22
tire [1] - 163:5
title [11] - 29:25, 52:2, 64:14, 64:16, 64:19, 64:21, 65:1, 111:8, 131:19, 170:20, 215:4
today [20] - 20:14, 27:23, 57:5, 59:7, 106:23, 107:5, 107:11, 113:25, 138:9, 149:10, 161:23, 179:14, 180:15, 195:17, 196:6, 199:17, 212:8, 235:1, 235:8, 238:23
together [16] - 67:15, 70:7, 82:19, 99:19, 110:9, 121:14, 135:3, 135:8, 181:24, 182:1, 189:7, 189:15, 191:22, 191:24, 191:25, 194:8
Tom [1] - 27:9
tomorrow [1] - 249:21
tonight [1] - 110:24
took [10] - 52:5, 64:2, 67:14, 81:3, 134:24, 135:5, 165:20, 219:9, 234:10, 250:9
tool [1] - 216:9
top [7] - 35:25, 91:3, 104:15, 104:20, 205:20, 233:11, 241:22
topic [1] - 26:5
topography [1] - 108:7
torque [1] - 182:25
total [4] - 103:3, 210:23, 212:5, 237:17
totally [1] - 201:21
Toward [1] - 8:9
toward [2] - 49:14, 49:22
towards [8] - 49:5, 67:25, 91:3, 154:23, 154:25, 162:5, 162:7, 162:9
tower [20] - 86:13, 86:14, 86:15, 86:17, 86:21, 86:23, 87:2, 87:4, 87:5, 87:6, 87:7, 102:8, 104:4, 205:7, 205:8, 205:11, 205:16, 206:23, 208:16
towers [17] - 85:23, 86:15, 86:18, 86:24, 90:2, 90:7, 90:8, 109:3, 193:6, 199:15, 200:10, 205:21, 206:14, 207:18, 208:1, 208:5, 237:2
towns [2] - 93:22, 134:14
toxic [3] - 71:10, 178:17, 186:2
track [2] - 53:24, 173:2
tracked [1] - 77:8
tract [2] - 34:23, 157:5
Traditional [1] - 9:22
traffic [1] - 163:6
trailing [11] - 55:5, 55:12, 56:13, 58:2, 58:15, 59:5, 59:25, 119:9, 179:5, 179:6, 183:10
train [1] - 231:2
trained [2] - 216:10, 230:25
Training [2] - 2:2, 12:10
transaction [2] - 116:2, 126:4
transactions [5] - 116:25, 134:19, 135:20, 136:1, 136:6
transcribe [1] - 181:6
Transcript [1] - 1:7
transcript [2] - 2:1, 181:7
transcription [1] - 250:12
transfer [9] - 65:8, 72:8, 116:7, 117:25, 118:13, 118:14, 118:21, 126:21, 126:24
transferred [9] - 112:18, 113:17, 114:2, 116:1, 116:3, 117:23, 118:4, 118:22
transmission [7] - 68:8, 68:22, 69:9, 111:12, 111:22, 217:19, 226:4
transmitted [1] - 226:1
transpire [1] - 167:18
transport [1] - 186:19
transportation [1] - 162:10
travel [2] - 244:15, 244:17
travels [1] - 238:20
traversing [1] - 134:2
treated [1] - 219:2
tree [1] - 37:10
trees [6] - 207:21, 207:22, 207:23, 219:9, 226:3, 242:23
tremendously [1] - 177:24
trend [1] - 163:14
trends [1] - 83:20
trespass [1] - 156:11
tribal [2] - 31:24, 32:9
tried [5] - 79:25, 97:22, 165:15, 169:25, 181:6
trifle [1] - 26:15
trouble [1] - 55:16
truck [1] - 146:6
trucks [2] - 146:8, 163:2
true [1] - 250:11
trust [1] - 26:16
try [8] - 50:20, 55:10, 84:8, 96:6, 131:6, 131:7, 188:3, 246:1
trying [19] - 26:20, 39:12, 44:1, 49:20, 49:24, 50:11, 53:12, 55:25, 73:1, 76:21, 88:15, 104:13, 104:14, 181:13, 181:14, 192:10, 198:8, 201:19, 208:10
Tuesday [1] - 12:8
turbine [113] - 44:22, 60:8, 60:9, 61:3, 61:5, 61:6, 62:6, 63:10, 73:15, 73:16, 73:18, 75:12, 75:17, 75:24, 77:13, 77:17, 77:19, 79:11, 80:2, 80:8, 80:9, 80:10, 87:5, 89:21, 90:15, 91:3, 91:5, 93:6, 93:14, 94:16, 96:10, 96:12, 102:4, 102:5, 102:6, 102:10, 104:15, 104:16, 104:18, 141:11, 141:16, 146:19, 146:21, 146:22, 153:19, 158:11, 161:2, 173:24, 174:1, 174:8, 174:15, 174:17, 175:18, 175:21, 175:22, 176:6, 177:4, 179:25, 181:18, 182:3, 182:23, 188:7, 188:8, 188:24, 189:23, 190:6, 193:1, 193:4, 194:4, 194:10, 196:19, 198:5, 198:15, 198:18, 198:22, 198:24, 198:25, 199:3, 199:7, 199:11, 200:9, 200:11, 203:10, 208:11, 208:15, 213:20, 214:3, 217:5, 217:15, 218:18, 218:20, 219:12, 219:13, 219:24, 219:25, 220:8, 220:9, 221:23, 222:10, 222:18, 224:3, 224:23, 226:16, 231:18, 231:19, 232:13, 232:16, 247:23, 248:1
Turbine [18] - 8:3, 8:4, 8:6, 8:7, 8:10, 9:4, 9:14, 9:16, 9:22, 10:5, 75:25, 80:20, 90:22, 145:17, 207:2, 209:1, 209:2
turbine's [1] - 190:20
turbine-by-turbine [1] - 73:18
turbines [112] - 24:10, 40:7, 41:6, 41:11, 43:22, 45:25, 59:5, 60:12, 60:14, 60:16, 61:16, 62:1, 62:4, 62:10, 62:13, 71:3, 75:8, 80:12, 80:13, 80:14, 80:17, 80:23, 81:1, 81:3, 81:4, 89:22, 90:4, 96:3, 100:12, 104:5, 104:21, 106:17, 106:18, 108:16, 116:8, 118:21, 119:7, 119:14, 119:19, 130:10, 130:20, 136:10, 137:24, 137:25, 144:16, 144:18, 144:25, 145:2, 145:13, 159:6, 160:22, 168:7, 172:2, 172:3, 172:6, 172:8, 172:9, 172:11, 174:4, 174:5, 176:1, 177:8, 182:8, 184:15, 184:21, 184:23, 185:2, 185:3, 190:18, 192:9, 192:21, 193:7, 193:8, 195:6, 195:13, 196:5, 197:1, 197:5, 198:5, 198:14, 198:21, 198:23, 199:9, 200:1, 200:7, 201:7, 203:2, 203:7, 203:25, 204:2, 204:8, 208:23, 209:9, 209:12, 209:15, 217:13, 217:16, 217:21, 218:19, 219:6, 219:10, 219:14, 222:17, 223:4, 235:14, 238:13, 245:10
Turbines [15] - 7:19, 7:21, 8:11, 8:12, 8:14, 8:15, 8:16, 8:17, 8:18, 8:19, 8:22, 9:15, 9:18, 9:19, 10:5
turbulence [14] - 122:16, 122:20, 182:7, 182:8, 182:12, 182:14, 182:18, 182:21, 183:20, 183:23, 188:13, 188:15, 188:25, 196:21
turn [13] - 13:24, 14:10, 38:8, 38:15, 79:1, 109:18, 110:8, 117:4, 137:17, 145:13, 145:17, 205:3, 236:5
turned [1] - 244:23

turning [1] - 248:16
TW-1 [1] - 7:14
TW-S-1 [1] - 10:3
TW-S-2 [1] - 10:4
TW-S-3 [1] - 10:4
TW-S-4 [1] - 10:5
twice [1] - 68:16
two [40] - 19:13, 21:2, 21:11, 22:10, 25:6, 27:15, 32:6, 46:25, 47:8, 80:16, 98:4, 102:12, 108:16, 113:23, 119:14, 119:22, 120:7, 121:14, 129:12, 140:22, 142:18, 143:5, 144:23, 145:7, 145:23, 157:10, 161:2, 164:11, 182:13, 191:25, 194:15, 206:13, 206:14, 206:18, 208:5, 221:9, 235:21, 243:25, 246:9
two-story [1] - 144:23
two-thirds [1] - 108:16
TYLER [3] - 3:3, 5:6, 5:16
Tyler [13] - 7:14, 7:14, 10:3, 10:12, 29:21, 30:2, 46:18, 67:6, 67:10, 125:10, 177:9, 184:20, 194:22
type [14] - 64:1, 107:7, 136:13, 153:5, 155:13, 156:4, 156:8, 158:23, 162:23, 168:5, 217:7, 224:8, 227:13
typically [4] - 207:23, 224:1, 232:3, 242:16
typographical [3] - 130:7, 134:1, 200:20

U

U.S [1] - 146:24
ubiquitous [1] - 27:6
UK [1] - 8:20
ultimately [2] - 45:9, 101:21
unable [2] - 20:7, 21:3
uncertainties [1] - 85:6
uncertainty [2] - 82:8, 223:15
uncontrolled [2] - 174:10, 175:14
under [15] - 20:21, 28:18, 36:23, 49:13, 69:9, 90:19, 119:22, 127:7, 134:24, 139:14, 154:19, 161:1, 187:4, 232:18, 234:2
Under [2] - 8:19, 9:19
underground [3] - 43:8, 44:22, 90:13
underneath [1] - 97:7
understood [4] - 42:10, 67:4, 134:22, 151:1
underwriter [1] - 149:12
undue [1] - 37:19
unduly [1] - 12:25
unfortunately [1] - 67:14
unfounded [1] - 153:17
unit [3] - 20:10, 144:13, 152:19
United [4] - 83:11, 111:25, 222:5, 222:13
units [2] - 13:3, 185:1
university [1] - 171:12
University [7] - 30:15, 112:3, 112:5, 132:6, 171:14, 215:14, 215:23
unless [8] - 128:17, 189:11, 190:12, 190:25, 203:17, 219:18, 240:22, 246:10
unlikely [3] - 58:5, 59:14, 59:16
unredacted [2] - 38:3, 46:7
up [80] - 14:7, 29:2, 39:12, 41:23, 50:13, 54:2, 54:6, 54:10, 55:24, 60:20, 61:17, 62:5, 62:6, 62:18, 63:9, 63:16, 67:21, 79:16, 79:21, 80:1, 80:15, 81:19, 82:5, 88:20, 89:7, 91:8, 91:14, 93:10, 103:9, 104:10, 106:7, 109:22, 109:25, 115:4, 123:19, 126:14, 128:7, 134:20, 135:2, 148:14, 153:7, 159:21, 161:17, 163:23, 164:23, 166:15, 166:25, 169:3, 173:3, 182:9, 182:17, 183:20, 186:19, 188:19, 188:22, 196:23, 197:18, 197:19, 200:2, 201:19, 201:25, 202:13, 203:24, 204:8, 205:25, 208:19, 213:1, 226:11, 234:25, 235:5, 238:10, 238:15, 244:7, 244:20, 244:21, 245:5, 245:9, 248:1, 249:4, 249:8
Update [1] - 8:20
update [4] - 78:24, 216:19, 216:20
updated [1] - 56:12
Updates [1] - 7:19
upgrade [1] - 82:9
upgraded [1] - 172:10
upper [1] - 176:4
urban [1] - 132:8
Urbana [1] - 132:7
uses [4] - 65:11, 132:25, 133:1
UTILITIES [2] - 1:1, 1:10
Utilities [2] - 12:3, 133:14
utility [1] - 111:21
utilize [4] - 45:21, 105:20, 172:4, 172:7
utilized [3] - 61:19, 89:10, 116:8
utilizing [1] - 99:15
UTM [1] - 9:11

V

validity [1] - 53:10
Valley [1] - 164:10
valuation [4] - 131:22, 132:13, 132:22, 140:4
valuations [1] - 157:19
Value [1] - 7:10
value [23] - 98:7, 137:2, 138:6, 139:10, 142:1, 143:21, 143:23, 144:2, 151:3, 152:2, 156:4, 156:18, 156:25, 160:10, 160:16, 163:12, 166:10, 166:14, 166:21, 168:10, 223:24, 231:11, 235:6
values [5] - 132:3, 135:23, 160:4, 160:8, 160:14
variance [1] - 62:20
variances [2] - 88:1, 142:22
varies [1] - 63:8
variety [3] - 132:24, 141:10, 145:6
Various [2] - 8:19, 9:19
various [9] - 30:11, 108:6, 111:20, 132:15, 134:10, 134:11, 135:6, 141:4, 148:3
vary [5] - 46:19, 46:22, 47:6, 62:18, 124:2
vehicle [1] - 163:19
vehicles [1] - 168:2
velocity [2] - 145:21, 196:20
vendors [1] - 108:24
verbal [1] - 64:5
verbatim [1] - 56:2
verification [1] - 223:2
verified [2] - 163:10, 246:2
verify [2] - 55:22, 127:23
verifying [1] - 226:12
versa [1] - 80:23
versed [1] - 101:2
version [11] - 38:4, 40:1, 46:7, 49:1, 53:22, 54:2, 54:11, 57:3, 79:21, 123:15, 245:9
versus [8] - 50:21, 52:17, 86:17, 121:19, 122:5, 123:23, 193:16, 225:6
vertical [1] - 219:4
vetting [1] - 83:18
viability [2] - 82:2, 155:7
viable [1] - 95:19
vibrating [4] - 188:14, 188:16, 189:12, 196:21
vibration [13] - 122:16, 122:20, 188:5, 188:6, 189:2, 189:10, 196:5, 196:8, 196:9, 196:12, 196:13, 196:17
vice [1] - 80:23
VICE [1] - 1:11
vicinity [6] - 175:18, 175:22, 202:23, 203:4, 203:6, 206:21
Vicinity [1] - 8:14
video [1] - 61:10
view [4] - 122:15, 137:25, 147:16, 168:7
views [1] - 13:2
visible [1] - 247:19
visit [2] - 164:21, 228:25
visual [1] - 122:15
visualizations [1] - 216:3
Vitae [2] - 7:23, 9:14
vitality [3] - 155:8, 159:7, 163:21
Volume [1] - 1:9
volume [3] - 139:17, 151:22, 190:1
voluntary [1] - 110:7

W

wait [7] - 19:14, 19:20, 76:18, 81:24, 89:14, 109:15, 119:5
waiting [3] - 19:16, 80:6, 130:3
waive [9] - 15:22, 20:4, 20:15, 21:5, 21:10, 21:24, 22:4, 22:10, 29:9
waived [2] - 15:17, 20:24
waiver [2] - 59:6, 107:7
wake [10] - 90:10, 122:16, 190:19, 190:20, 191:11, 191:14, 191:16, 191:19, 192:5, 192:8
waking [3] - 193:7, 199:6, 200:8
walk [2] - 79:17, 156:10
wall [5] - 163:2, 243:1, 243:2, 247:14
wander [1] - 14:24
wants [5] - 35:18, 43:10, 94:12, 147:10, 240:23
warranty [1] - 199:1
washer [1] - 156:14
water [1] - 224:5
Watertown [4] -

134:14, 154:24, 154:25, 229:1
wave [1] - 23:14
ways [3] - 81:24, 167:6, 182:13
weakened [1] - 248:12
weather [1] - 138:19
weave [1] - 181:25
web [1] - 14:9
website [1] - 14:18
weeds [2] - 70:2, 78:5
week [2] - 92:15, 110:25
weekly [1] - 173:3
weight [10] - 70:21, 71:6, 71:8, 185:17, 186:1, 187:8, 193:14, 193:25
welcome [3] - 12:1, 146:12, 154:8
welfare [5] - 12:24, 23:17, 25:1, 25:12, 25:23
WES [1] - 237:2
west [2] - 165:8, 243:1
whatnot [1] - 118:21
white [1] - 183:9
whole [11] - 39:2, 49:24, 104:18, 115:17, 150:15, 150:16, 155:8, 163:3, 168:6, 222:13, 223:12
wholesale [1] - 201:13
wholly [1] - 118:25
WHOQOL [1] - 8:13
WHOQOL-BREF [1] - 8:13
WI [1] - 10:22
wide [2] - 132:24, 235:11
widely [2] - 179:11, 216:8
width [3] - 218:19, 247:21, 248:7
wife [1] - 161:14
WILHELM [3] - 3:3, 5:6, 5:16
Wilhelm [25] - 7:14, 7:14, 10:3, 10:12, 29:21, 30:2, 32:21, 44:4, 52:1, 53:18, 69:1, 74:19, 79:20, 81:22, 91:21, 98:18, 100:25, 110:16, 120:20, 176:18, 177:9, 177:14, 204:20, 208:4, 239:19
willing [9] - 20:4, 21:1, 37:18, 43:12, 106:24, 107:5, 164:1, 192:2, 240:25
WIND [2] - 1:4, 1:5
wind [140] - 12:6, 24:10, 26:4, 30:13, 32:5, 33:17, 34:2, 34:6, 40:7, 41:6, 41:10, 41:11, 41:13, 42:25, 43:2, 43:7, 43:22, 44:13, 44:22, 45:25, 49:8, 60:12, 61:15, 63:11, 69:6, 69:7, 78:21, 83:10, 84:25, 87:5, 88:8, 90:7, 90:8, 92:4, 93:6, 93:14, 94:16, 96:3, 111:21, 111:23, 118:11, 122:18, 123:23, 129:6, 129:8, 133:7, 133:10, 135:1, 137:1, 137:16, 137:22, 138:19, 139:22, 140:2, 140:18, 140:20, 140:25, 141:1, 141:16, 145:16, 145:21, 146:18, 146:24, 147:3, 147:5, 148:1, 149:3, 149:17, 151:6, 152:15, 153:1, 153:2, 153:3, 153:4, 153:6, 153:19, 156:20, 159:13, 159:14, 159:23, 160:5, 160:14, 160:21, 164:3, 164:24, 169:14, 170:22, 187:15, 192:25, 193:4, 193:5, 195:6, 200:10, 201:7, 201:8, 201:10, 201:16, 203:1, 205:8, 210:6, 211:3, 211:20, 211:23, 212:4, 212:20, 215:7, 215:21, 215:22, 215:25, 216:1, 216:2, 216:9, 216:12, 218:21, 218:22, 219:12, 219:25, 221:23, 222:10, 222:11, 222:17, 222:18, 224:2, 224:23, 228:2, 228:4, 228:5, 228:6, 228:8, 228:11, 228:13, 229:5, 232:10, 232:11, 232:14, 247:23
Wind [105] - 1:17, 7:19, 8:3, 8:4, 8:6, 8:7, 8:9, 8:11, 8:12, 8:14, 8:15, 8:16, 8:17, 8:18, 8:19, 8:22, 9:14, 9:15, 9:15, 9:17, 9:18, 9:19, 9:22, 10:16, 10:22, 12:6, 24:23, 25:24, 26:9, 30:5, 30:14, 31:13, 31:14, 31:16, 31:21, 32:13, 38:4, 39:2, 45:14, 45:15, 56:15, 56:20, 56:22, 57:2, 60:11, 68:1, 69:5, 69:7, 69:22, 70:5, 70:11, 70:16, 71:22, 72:10, 72:16, 72:20, 75:15, 77:21, 78:20, 79:12, 105:21, 106:1, 106:12, 107:5, 111:13, 112:17, 112:20, 112:25, 113:4, 113:16, 113:22, 113:25, 115:20, 115:25, 116:18, 116:25, 117:3, 117:14, 117:16, 118:12, 118:16, 118:23, 120:11, 120:14, 124:15, 124:17, 125:2, 126:4, 126:8, 126:22, 126:25, 127:21, 131:25, 170:25, 171:3, 172:1, 175:12, 192:2, 215:9, 215:20, 228:19, 230:1, 230:7, 234:17
Wind's [1] - 179:10
wind's [1] - 175:11
WindLogics [1] - 191:21
window [3] - 219:7, 247:10, 248:1
WindPRO [4] - 216:6, 216:8, 230:12, 230:23
Winds [1] - 133:17
winds [1] - 210:7
wing [3] - 183:21, 183:22
wish [3] - 22:13, 144:17, 169:11
withdraw [2] - 141:7, 141:9
withdrawal [1] - 141:15
withdrew [2] - 140:17, 141:1
withheld [1] - 103:6
WITNESS [143] - 44:7, 44:11, 44:15, 53:20, 54:7, 54:9, 79:24, 82:4, 82:13, 82:17, 82:23, 83:1, 83:7, 83:17, 84:6, 84:14, 84:18, 84:24, 85:12, 85:15, 85:20, 86:3, 86:11, 86:16, 86:25, 87:12, 87:18, 87:22, 88:3, 88:6, 88:17, 88:20, 89:2, 89:11, 89:16, 89:19, 89:25, 90:3, 91:2, 91:12, 91:17, 91:19, 92:6, 92:11, 92:17, 92:25, 93:9, 93:19, 94:7, 94:21, 95:16, 96:10, 96:15, 96:19, 96:22, 97:3, 97:14, 101:5, 101:9, 101:14, 101:21, 101:24, 102:7, 102:11, 108:3, 108:12, 108:23, 109:14, 109:24, 128:20, 129:21, 130:14, 130:17, 130:21, 146:12, 152:17, 153:16, 154:4, 154:7, 154:9, 154:12, 154:17, 154:21, 155:21, 157:3, 158:8, 159:1, 159:14, 159:21, 160:18, 161:13, 162:8, 162:13, 162:17, 162:20, 163:13, 164:4, 165:2, 165:11, 165:19, 166:4, 166:8, 166:23, 167:23, 168:14, 169:5, 169:16, 191:5, 195:22, 201:5, 201:15, 201:21, 202:5, 202:22, 203:16, 204:3, 204:16, 205:1, 205:23, 206:11, 206:16, 206:20, 206:25, 207:5, 207:16, 207:19, 208:8, 208:14, 209:5, 209:15, 209:21, 209:25, 210:11, 210:14, 210:21, 211:7, 211:10, 212:2, 212:11, 212:17, 212:22, 213:3, 214:18
witness [34] - 15:13, 15:14, 15:17, 15:23, 16:10, 21:14, 26:15, 27:12, 29:20, 32:16, 43:15, 43:20, 51:7, 53:4, 67:20, 98:7, 100:2, 103:16, 107:15, 110:18, 113:9, 121:1, 136:18, 170:9, 170:15, 173:11, 173:15, 177:8, 177:13, 214:19, 214:20, 214:24, 226:21, 239:21
Witness [1] - 67:17
witness's [2] - 16:8, 102:21
WITNESSES [6] - 3:2, 4:2, 5:2, 5:9, 5:19, 6:2
witnesses [13] - 15:10, 16:5, 19:14, 21:2, 21:6, 21:11, 21:24, 22:10, 27:15, 27:22, 83:3, 98:4, 107:14
Wittler [3] - 1:24, 250:17, 250:18
WITTLER [1] - 250:5
wondering [2] - 100:2, 109:21
Worcester [1] - 112:2
word [8] - 31:1, 31:2, 61:24, 130:11, 144:16, 167:15, 176:25
words [5] - 26:1, 28:10, 115:14, 181:3, 243:25
worker [3] - 175:21, 176:3, 176:5
Worker's [2] - 176:20, 176:22
workers [10] - 124:19, 124:21, 125:2, 174:2, 174:4, 175:13, 175:17, 175:19, 202:19, 202:25
Workman's [2] - 176:8, 176:13
works [4] - 184:8,

223:22, 226:18, 247:20
world [5] - 85:7, 137:22, 216:9, 222:16, 231:9
world's [1] - 83:9
worse [1] - 136:24
worst [1] - 187:2
worst-case [1] - 187:2
worth [1] - 80:2
would/could [1] - 180:24
wrap [1] - 29:2
written [4] - 26:4, 35:25, 79:7, 179:15
wrote [4] - 109:22, 181:1, 212:22, 213:2
WTG's [1] - 9:11

Y

y'all [1] - 95:7
yards [1] - 165:8
year [22] - 24:16, 36:16, 57:8, 57:19, 59:2, 59:16, 77:5, 88:11, 138:9, 138:20, 139:6, 157:16, 164:12, 185:4, 211:3, 211:22, 220:2, 220:7, 234:14, 235:6, 248:10
years [24] - 28:15, 63:4, 94:25, 111:24, 113:5, 113:7, 116:14, 116:20, 117:18, 132:21, 133:11, 156:22, 171:6, 185:21, 186:23, 187:14, 187:20, 215:14, 215:16, 215:19, 221:20, 228:9, 243:6, 246:9
yellow [2] - 80:16, 89:21
yes/no [2] - 168:15, 168:16
yesterday [2] - 98:8, 246:22
yield [1] - 223:3
young [1] - 162:6
yourself [1] - 228:2

Z

zero [3] - 31:16, 92:3, 92:9
Zone [1] - 9:11
zone [10] - 175:9, 202:1, 202:3, 202:5, 202:13, 202:14, 202:19, 203:10, 203:11, 204:11
zoning [8] - 24:12, 24:17, 27:24, 28:20, 52:3, 92:23, 142:21, 143:18

THE PUBLIC UTILITIES COMMISSION

OF THE STATE OF SOUTH DAKOTA

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The following transcript of proceedings was held in the above-entitled matter at the Matthew Training Center, Joe Foss Building, 523 East Capitol Avenue, Pierre, South Dakota, on the 5th day of February, 2020, commencing at 8:30 a.m.

I N D E X

APPLICANT'S WITNESSES	PAGE
TYLER WILHELM	
Direct Examination by Mr. Murphy	29
Cross-Examination by Mr. Swanson	32
Cross-Examination by Ms. Christenson	46
Cross-Examination by Mr. Robish	73
Cross-Examination by Ms. Reiss	74
Commissioner Questions	81
Redirect Examination by Mr. Murphy	98
Recross-Examination by Ms. Christenson	104
Recross-Examination by Ms. Reiss	105
DARYL HART	
Direct Examination by Mr. Murphy	111
Cross-Examination by Mr. Swanson	113
Cross-Examination by Ms. Christenson	114
Cross-Examination by Ms. Reiss	126
Commissioner Questions	128
MICHAEL MAROUS	
Direct Examination by Mr. Schumacher	131
Cross-Examination by Mr. Swanson	136
Cross-Examination by Ms. Christenson	140
Cross-Examination by Mr. Robish	146
Cross-Examination by Ms. Edwards	150
Commissioner Questions	152
MARK THOMPSON	
Direct Examination by Mr. Murphy	170
Cross-Examination by Ms. Christenson	173
Cross-Examination by Mr. Robish	194
Cross-Examination by Ms. Reiss	196
Commissioner Questions	201
Redirect Examination by Mr. Murphy	213

I N D E X (Continued)

APPLICANT'S WITNESSES	PAGE
JAY HALEY	
Direct Examination by Mr. Murphy	215
Cross-Examination by Mr. Swanson	220
Cross-Examination by Ms. Christenson	227
Cross-Examination by Ms. Edwards	243
Further Direct Examination by Mr. Murphy	262
Commissioner Questions	263
Redirect Examination by Mr. Murphy	275
Recross-Examination by Mr. Swanson	277
Recross-Examination by Ms. Christenson	283
Recross-Examination by Mr. Robish	292
Recross-Examination by Ms. Edwards	294
RICH LAMPETER	
Direct Examination by Mr. Schumacher	301
Cross-Examination by Mr. Swanson	302
Cross-Examination by Ms. Christenson	313
Cross-Examination by Ms. Edwards	315
Commissioner Questions	316
ROBERT MCCUNNEY	
Direct Examination by Mr. Murphy	321
Cross-Examination by Ms. Christenson	324
Commissioner Questions	326
CHRISTOPHER OLLSON	
Direct Examination by Mr. Murphy	333
Cross-Examination by Mr. Swanson	337
Cross-Examination by Ms. Christenson	355
Cross-Examination by Mr. Robish	367
Cross-Examination by Ms. Edwards	369
Commissioner Questions	371

I N D E X (Continued)

APPLICANT'S WITNESSES	PAGE
SARAH SAPPINGTON	
Direct Examination by Mr. Schumacher	375
Cross-Examination by Ms. Christenson	378
Cross-Examination by Ms. Reiss	388
Commissioner Questions	395
TYLER WILHELM	
Commissioner Questions	407

INTERVENORS' WITNESSES	PAGE
GARRY EHLEBRACHT	
Direct Examination by Mr. Swanson	423
Cross-Examination by Ms. Christenson	429
Cross-Examination by Ms. Edwards	430
Commissioner Questions	431
AMY RALL	
Direct Examination by Mr. Swanson	439
Commissioner Questions	442
TYLER WILHELM	
Direct Examination by Mr. Swanson	446
Commissioner Questions	450

STAFF'S WITNESSES	PAGE
DAVID LAWRENCE	
Direct Examination by Ms. Edwards	452
Cross-Examination by Mr. Swanson	459
Cross-Examination by Ms. Christenson	463
Commissioner Questions	469
Redirect Examination by Ms. Edwards	489
Recross-Examination by Ms. Christenson	490

I N D E X (Continued)

STAFF'S WITNESSES	PAGE
DAVID HESSLER	
Direct Examination by Ms. Edwards	494
Cross-Examination by Mr. Swanson	497
Cross-Examination by Ms. Christenson	508
Cross-Examination by Mr. Robish	511
Commissioner Questions	514
Redirect Examination by Ms. Edwards	518
PAIGE OLSON	
Direct Examination by Ms. Reiss	534
Commissioner Questions	537
HILARY MOREY	
Direct Examination by Ms. Reiss	539
Commissioner Questions	542
Redirect Examination by Ms. Reiss	549
DARREN KEARNEY	
Direct Examination by Ms. Reiss	550
Cross-Examination by Mr. Swanson	560
Cross-Examination by Ms. Christenson	580
Cross-Examination by Mr. Robish	608
Commissioner Questions	616

I N D E X (Continued)

APPLICANT'S EXHIBITS

A1	Crowned Ridge Application
A1-A	Appendix A - Figures 1 through 14
A1-B	Appendix B - Agency Coordination Dates and Correspondence
A1-C	Appendix C - Aquatic Resources Survey Report
A1-D	Appendix D - Bat Acoustic Survey Report
A1-E	Appendix E - Bat Habitat Assessment Report
A1-F	Appendix F - Dakota Skipper-Poweshiek Skipperling Survey Report
A1-G	Appendix G - Raptor Nest Survey Report
A1-H	Appendix H - Avian Use Survey Report
A1-I	Appendix I - Sound Level Modeling Report
A1-J	Appendix J - Shadow Flicker Modeling Report
A1-K	Appendix K - County Conditional Use Permits
A1-L	Appendix L - Property Value Effect Studies
A1-M	Appendix M - Telecommunication Studies
A1-N	Appendix N - Decommissioning Plan
A1-O	Appendix O - Cultural Confidential
A2	Direct Testimony Jay Haley
A3	Direct Testimony Sarah Sappington
A4	Direct Testimony Mark Thompson
A4-1	Exhibit MT-1: Resume of Mark Thompson
A5	Direct Testimony Tyler Wilhelm
A5-1	Exhibit TW-1: Resume of Tyler Wilhelm
A6	Direct Testimony Daryl Hart
A6-1	Exhibit DH-1: Resume of Daryl Hart
A6-2	Exhibit DH-2: Tax Revenues
A7	Direct Testimony and Exhibit Rich Lampeter
A7-1	Exhibit RL-1: Resume of Richard Lampeter
A7-2	Exhibit RL-2: Proposed Postconstruction Sound Protocol
A7-3	Exhibit RL-3: Low Frequency Noise and Infrasound from Wind Turbines
A8	CRW, LLC's Letter regarding Updates to Original Application
A9	CRW, LLC's Letter regarding Dropped and Moved Turbines
A10	CRW Letter, Notice Letter, and Affidavit on Notice of Public Input Hearing
A11	PUC Affidavits of Publication
A12	Supplemental Testimony of Chris Ollson
A12-1	Exhibit CO-S-1: Curriculum Vitae

I N D E X (Continued)

APPLICANT'S EXHIBITS

A12-2	Exhibit CO-S-2: Exposure to Wind Turbine Noise
A12-3	Exhibit CO-S-3: Effects of Wind Turbine Noise on Self-Reported and Objective Measures of Sleep
A12-4	Exhibit CO-S-4: Before-After Field Study of Effects of Wind Turbine Noise on Polysomnographic Sleep Parameters
A12-5	Exhibit CO-S-5: Impact of Wind Turbine Sound on Annoyance, Self-Reported Sleep Disturbance and Psychological Distress
A12-6	Exhibit CO-S-6: The Association Between Self-Reported and Objective Measures of Health and Aggregate Annoyance Scores Toward Wind Turbine Installations
A12-7	Exhibit CO-S-7: Health-Based Audible Noise Guidelines Account for Infrasound and Low-Frequency Noise Produced by Wind Turbines
A12-8	Exhibit CO-S-8: Low-Frequency Noise Incl. Infrasound from Wind Turbines and Other Sources
A12-9	Exhibit CO-S-9: An Assessment of Quality of Life Using the WHOQOL-BREF Among Participants Living in the Vicinity of Wind Turbines
A12-10	Exhibit CO-S-10: Monitoring Annoyance and Stress Effects of Wind Turbines on Nearby Residents
A12-11	Exhibit CO-S-11: Health Effects and Wind Turbines: A Review of the Literature
A12-12	Exhibit CO-S-12: Wind Turbines and Photosensitive Epilepsy
A12-13	Exhibit CO-S-13: Wind Turbines, Flicker, and Photosensitive Epilepsy
A12-14	Exhibit CO-S-14: Potential of Wind Turbines to Elicit Seizures Under Various Meteorological Conditions
A12-15	Exhibit CO-S-15: Update of UK Shadow Flicker Evidence Base
A12-16	Exhibit CO-S-16: Information on How to Identify and Assess Optical Emissions Wind Turbines
A13	Supplemental Testimony Daryl Hart
A13-1	Exhibit DH-S-1: Generator Interconnection Agreement

I N D E X (Continued)

APPLICANT'S EXHIBITS

A13-2	Exhibit DH-S-2: Maps depicting 200 MW array and potential deferral of 100 MWs
A13-3	Exhibit DH-S-3: Explanation of Turbine Status Change
A14	Supplemental Testimony Jay Haley
A14-1	Exhibit JH-S-1: Final Report CRW II Sound Study Codington, Deuel, and Grand Counties
A14-2	Exhibit JH-S-2: Final Report CRW II Shadow Flicker Study Codington, Deuel, and Grant
A14-3	Exhibit JH-S-3: CRW II 200 MW Sound Level Tabular Results Sorted by Receptor ID Realistic Case Sound Result at Land Parcel
A14-4	Exhibit JH-S-4: CRW II 200 MW Shadow Flicker Tabular Results Sorted by Receptor ID Realistic case shadow results at occupied structures Results using GE 2.3-116-90m HH, GE 2.1-116-80 m HH WTG's UTM NAD83 Zone 14 Codington Co.
A15	Supplemental Testimony Mark Thompson
A16	Supplemental Testimony Michael MaRous
A16-1	Exhibit MM-S-1: Market Impact Analysis
A17	Supplemental Testimony Robert McCunney
A17-1	Exhibit RM-S-1: Curriculum Vitae
A17-2	Exhibit RM-S-2: Exposure to Wind Turbine Noise
A17-3	Exhibit RM-S-3: Wind Turbines and Health
A17-4	Exhibit RM-S-4: Health Effects Related to Wind Turbine Sound, Including Low-Frequency Sound and Infrasound
A17-5	Exhibit RM-S-5: Measurement and Level of Infrasound from Wind Farms and Other Sources
A17-6	Exhibit RM-S-6: Low Frequency Noise and Infrasound from Wind Turbines
A17-7	Exhibit RM-S-7: Potential of Wind Turbines to Elicit Seizures Under Various Meteorological Conditions
A18	Supplemental Testimony of Sarah Sappington
A18-1	Exhibit SS-S-1: SD State Historical Society's Letter to SWCA regarding Archaeological and Traditional Cultural Property Inventory, CRW II Wind Turbine Array
A18-2	Exhibit SS-S-2: SD State Historical Society's Letter to SWCA regarding Architectural Resources Assessment

I N D E X (Continued)

APPLICANT'S EXHIBITS

A19	Supplemental Testimony Tyler Wilhelm
A19-1	Exhibit TW-S-1: Deuel Co. Ord. B2004-01-23B
A19-2	Exhibit TW-S-2: Map Land Status
A19-3	Exhibit TW-S-3: Grant Co. Ord. 2016-01C
A19-4	Exhibit TW-S-4: List of Primary and Alternate Turbine Locations and Dropped Turbines
A20	Rebuttal Testimony Christopher Ollson
A21	Rebuttal Testimony Jay Haley
A21-1	Exhibit JH-R-1 Sound modelled with Hessler and CRW proposal
A21-2	Exhibit JH-R-2 Shadow Flicker modelled with Hessler and CRW proposal
A21-3	Exhibit JH-R-3 Intervenor results with Hessler and CRW proposal
A22	Rebuttal Testimony of Michael MaRous
A23	Rebuttal Testimony of Richard Lampeter
A24	Rebuttal Testimony of Sarah Sappington
A25	Rebuttal Testimony of Mark Thompson
A26	Rebuttal Testimony of Tyler Wilhelm
A27	Supplemental Response to Intervenor IR 2-15
A27-1	Attachment 1 Map
A27-2	Attachment 2 Map

INTERVENORS' EXHIBITS

I-1	Affidavit of Garry Ehlebracht
I-2	Wind Farm Lease and Easement Agreement
I-3	Application for Party Status (Corrected)
I-4	Affidavit of Laretta Kranz
I-5	Affidavit of Steven Greber
I-6	Affidavit of Amy Rall

CHRISTENSON'S EXHIBITS

AC-1	A Cooperative Measurement Survey and Analysis of Low Frequency and Infrasound at the Shirley Wind Farm in Brown County, WI
AC-2	McPherson 6 18 May
AC-3	Riina_Bray_IWT_Niagara
AC-4	Applicant's Responses to Christenson's DR

I N D E X (Continued)

CHRISTENSON'S EXHIBITS

AC-5	Applicant's Responses to Staff's Third Set
AC-6	Attachment 1 to Staff DR 3-2
AC-7	Attachment 1 to Staff DR 3-8
AC-8	Applicant's Supplemental Responses to Staff's Second Set of DR
AC-9	Applicant's Responses to Intervenors' Second Set of DR(4)
AC-10	MN-buyout-20186-143575-01
AC-11	Attachment 1 to Intervenor 2-2
AC-12	Attachment 1 to Intervenor 2-10
AC-13	Attachment 1 to Intervenor 2-16
AC-14	Attachment 1 to Intervenor 1-1 Applicant's Responses to Staff's First Set of DR
AC-15	Attachment 1 to Intervenor 1-4 Part 1

STAFF'S EXHIBITS

S1	Prefiled Testimony and Exhibits Darren Kearney
S2	Prefiled Testimony and Exhibits Darren Kearney (Confidential)
S3	Prefiled Testimony and Exhibits of Hilary Morey
S4	Prefiled Testimony and Exhibits of Paige Olson
S5	Prefiled Testimony and Exhibits of David Lawrence
S6	Prefiled Supplemental Testimony of David Lawrence
S7	Proposed Permit Conditions

MS. CREMER: Good morning, everyone. We are on day two, and I will call the hearing back to order in Docket EL19-027, In the Matter of the Application by Crowned Ridge Wind II, LLC for a Permit of a Wind Energy Facility in Deuel, Grant, and Codington Counties.

When we went into recess last night we were in the midst of the direct case of Crowned Ridge. And I understand that Mr. Murphy would like to clarify. And, Mr. Haley, you can come back up to the witness stand. I'll remind you you're still under oath.

MR. MURPHY: Thank you. I'd like to clarify through Mr. Haley statements he made yesterday before we go to Commissioners' questions just to hopefully resolve any confusion.

FURTHER DIRECT EXAMINATION

BY MR. MURPHY:

Q. Yesterday in response to questions you were asked whether Dakota Range turbines were included in your studies.

Can you elaborate on correcting that statement?

A. Yes. The Dakota Range turbines are not included in the Crowned Ridge II study. I think when she said Dakota Range my brain heard Deuel Harvest. But, in fact, the Deuel Harvest turbines were included, not Dakota Range.

MR. MURPHY: Thank you.

MS. CREMER: All right. With that then, we are at Commission questions. And this is great. We are at Commissioner sharp eyes to ask questions first here.

COMMISSIONER NELSON: Stepping forward, I think.

Really the only question I've got revolves around shadow flicker. And as you were explaining it yesterday -- and, you know, we've heard some of this testimony before, but I think maybe a light bulb came on for me yesterday.

So if your modeling shows that a receptor would have 30 hours of shadow flicker a year, really depending on the windows in the house and what's around that house and where the windows are, they may well have 30 hours of shadow flicker coming through their biggest picture window; is that correct?

THE WITNESS: Yes. That would be correct.

COMMISSIONER NELSON: Or they may have absolutely none in their house if there are not windows or those windows are shaded by trees or other structures; is that correct?

THE WITNESS: Yes. That is correct.

COMMISSIONER NELSON: And so I think the revelation for me is when you see those numbers on the paper you just automatically assume that's going to be what's going to happen. But there's a whole lot of

realities that need to be looked at for each individual receptor for an individual to know exactly how it's going to impact their location; is that correct?

THE WITNESS: That is correct. And that's why we use the greenhouse sensor; because it's so much more conservative. It assumes that there's going to be shadow everywhere when in reality there isn't.

COMMISSIONER NELSON: Thank you. I don't have any other questions.

COMMISSIONER FIEGEN: Good morning.

THE WITNESS: Good morning.

COMMISSIONER FIEGEN: I heard you talk about it, but when I read your Supplemental Testimony of September 20, on page 17 you talk about shadow flicker. Well, it's not page 17. That's not correct at all. It's page 2 of 6, I guess. I don't know why I had 17 in the corner here.

You talk about Turbine 77 being at 32 hours and 32 minutes. And then also you talked about Alt. 3 in your -- I don't know if it was in your opening statement or if it was some of the cross. Can you just tell me about those two turbines? Because are those pretty much the two turbines that --

And then it kind of talks about not being curtailed and -- can you just bring me up to speed on

Alt. 3 and, I think, Turbine 77 that may have more than 30 hours? And if there's any others.

THE WITNESS: Well, it wouldn't have been Turbine 77.

COMMISSIONER FIEGEN: Oh. Receptor. Right.

THE WITNESS: We're talking receptors. So I'm not sure what receptor that would have been.

COMMISSIONER FIEGEN: That's what I was going to ask you.

THE WITNESS: But I do have in my notes here, if this will help, for the 300 megawatt proposal that we're discussing here, Receptor No. CR1-C10-P is the receptor with the highest amount of shadow flicker hours which is --

COMMISSIONER FIEGEN: Could you tell me one more time? I didn't write that down.

THE WITNESS: Sure. CR1-C10-P. And that turbine is being affected by CR2-ALT.3, the turbine number CR2-ALT.3. And the total shadow flicker is projected to be 38 hours and 20 minutes.

And it's important to note also that that CR2-ALT.3 turbine is in the 100 megawatt portion of the project.

COMMISSIONER FIEGEN: And then explain to me what you're doing about that. Are you curtailing so

it's --

THE WITNESS: Yes. The plan would be to curtail, you know, 8 hours and 20 minutes a year, at a minimum.

COMMISSIONER FIEGEN: Okay. So I'm going to look something up so I'm going to pass, and I might come back after Commissioner Hanson.

Thank you.

CHAIRMAN HANSON: Good morning, Mr. Haley.

THE WITNESS: Good morning.

CHAIRMAN HANSON: On page 3 of your Direct Testimony you spoke of sensitivity of the human ear and stated that -- on line 26 that between 30 and 40 dBA is comparable to the ambient sound levels in a quiet rural area. That's a pretty wide range, 30 to 40.

Do you have an idea of which end of that spectrum it's on? Is it closer to 30 or closer to 40? Is it 40 when there's a truck driving by? Is it 30 --

THE WITNESS: I don't know that you could really get that precise about it. It's just going to be a range. You know, the conditions are so variable that I don't think you could pinpoint it to that tight of a level.

CHAIRMAN HANSON: Really? Yet we talk about cutting it off at 40 and 42 and 45.

THE WITNESS: Well, but I'm talking about to pinpoint some -- a characterization of a typical sound level. Like a refrigerator in your kitchen, is it 35 decibels or 45 decibels?

Well, it could be anywhere within that range depending on your actual situation.

CHAIRMAN HANSON: Well, in your experience what is it closer to? Have you measured this a great deal?

THE WITNESS: What would what be closer to?

CHAIRMAN HANSON: The ambient noise in a rural area.

THE WITNESS: 30 to 35.

CHAIRMAN HANSON: Okay. Thank you.

In all of your studies did you study sleep deprivation at all?

THE WITNESS: No. That's not a part of my practice.

CHAIRMAN HANSON: Okay. And you didn't study that in mechanical engineering school, I don't imagine?

THE WITNESS: No. I had some sleep deprivation.

CHAIRMAN HANSON: Well, we all did last night, I think.

You said -- and perhaps I didn't catch it properly, but I heard you say that snow absorbs sound.

THE WITNESS: Yes, it does.

CHAIRMAN HANSON: Does it absorb very much sound?

THE WITNESS: Yeah. Snow is considered to be one of the more sound absorbing materials.

CHAIRMAN HANSON: It just seems intuitively inaccurate just on the basis of thinking of grass and dirt and leaves in the trees and all of that sort of thing that sound would not be -- or snow would not be absorbing.

And in personal experiences probably when there's just a tiny little bit of crust on top of the snow one can hear for a long, long distance very plainly.

THE WITNESS: It would depend on the types of snow. You know, there's the fluffy powder snow in the Montana mountains, and then there's the wind-driven snow in the prairies. So it will be a range there. But, generally speaking, the snow absorbs. It doesn't reflect.

CHAIRMAN HANSON: Well, how about the snow in South Dakota, driven on the plains after a sunny day and it's got a crisp layer of thin ice on the top? Doesn't that just not absorb very much?

THE WITNESS: Well, it would certainly absorb less than the powder snow in the mountains in Montana.

CHAIRMAN HANSON: Mr. Swanson in questioning you used the word fudge factor. Is an analysis of -- is there experience that enters into an analysis, or do you just put these are -- this is the data that I have, and that's what -- that's the decision?

THE WITNESS: No. There is experience. You're talking about the ground attenuation factor of 0.5, I assume?

CHAIRMAN HANSON: Correct.

THE WITNESS: That's been empirically verified over time that when you use that value in conjunction with the other conservative assumptions you're going to get the most accurate prediction that would match what is actually measured in the field at any given time.

CHAIRMAN HANSON: Could then the experience of one mechanical or wind engineer, as we were referring to, differ from another wind engineer?

THE WITNESS: Yeah. You're not going to get -- you know, I mean, just the nature of measurements is basically that, you know, no two people that take a measurement are going to get exactly the same answer. That's just the way it works.

CHAIRMAN HANSON: It appeared that you took a conservative approach on a number of areas here. Do you feel that you took the most conservative approach or

middle of the road or --

THE WITNESS: I would say, no, it was certainly not the most conservative. If we did that, you probably wouldn't have, you know, 12 turbines in the project. But it's a middle of the road conservative approach is what I would describe it as.

CHAIRMAN HANSON: Ms. Christenson queried you on a real interesting thought that had never occurred to me, and that was the moon flicker.

THE WITNESS: Oh, yeah.

CHAIRMAN HANSON: Never even thought of that. Is there such a thing?

THE WITNESS: No, there is not. It's come up in other hearings. At one point it peaked my curiosity. So I waited -- I live across from the school so there's a wide open soccer field across from my house.

So there was a perfectly clear night, and it was a super moon so it was about as bright as you're going to get. I went out there with a big wide stick out in the middle of the field and tried to see what I could see for a shadow. And you can see a little bit of a shadow, but the intensity of it is so incoherent that it's not going to create a shadow -- or a shadow flicker, I should say.

But yeah. You can see a shadow from a full moon.

CHAIRMAN HANSON: Okay. So if you can see a shadow for a full moon, wouldn't you be able to see a flicker?

THE WITNESS: No. Flicker can't occur unless there's enough difference in the light intensity between the light and the shadow. And when you get -- in the case of wind turbines when you get far enough away from that wind turbine that shadow has defused through the atmosphere to the point that it no longer has enough intensity to create that flickering effect.

CHAIRMAN HANSON: So you're saying then that the turbine blades would have to be fairly close to the receptor.

THE WITNESS: Yeah. If you think of -- if you take a ruler and pretend that's the wind turbine blade and you look at a light bulb and you put that ruler in front of you and you try to block the light, the farther you put that ruler away from your face, the thinner the ruler is going to appear and the less amount of the light bulb that's going to block; right?

CHAIRMAN HANSON: Yeah.

THE WITNESS: As you bring that ruler closer to you, you can get to the point where you can completely block out that light bulb. That's the relationship that's going on between the wind turbine and the observer

at their house. So when that house is far enough away from that turbine at some point there's not enough intensity left in that shadow to create a flicker.

CHAIRMAN HANSON: Is there a decrease of half -- I'm trying to remember my photography years and exposure to print.

There's a decrease on distance of like 50 percent for every -- can you help me out there?

THE WITNESS: Yeah. I'm a photographer too, but I can't tell you. I think light falls off to the fourth power or something to that effect.

But what I can tell you is that in relation to wind farm design there is a distance at which we can calculate where beyond that distance the shadow does not have enough intensity to cause flicker.

And, like I mentioned yesterday, the software that we use does perform that calculation. So if there are receptors that are beyond that distance, it will assume that the flicker at that point is zero. And for this project, based on the width of that blade, that distance is about 1,700 meters, which is a little over a mile.

CHAIRMAN HANSON: Okay. Thank you very much.

Commissioner Fiegen.

COMMISSIONER FIEGEN: I'm coming back to my

question because I think I must have misstated something.

We're going to go to your Supplemental Testimony.

THE WITNESS: Okay.

COMMISSIONER FIEGEN: And if you could pull that up so that -- it is September 20. And I want to go to page 2.

THE WITNESS: My testimony. Okay.

COMMISSIONER FIEGEN: Well, it's a Supplemental Testimony. It's not your --

You submitted it in September. On page 2 of 6 it says Jay --

MR. SWANSON: It's marked A14.

COMMISSIONER FIEGEN: What was it? Oh, A14. See. A.J.'s helping me out.

MR. SWANSON: Happy to help.

COMMISSIONER FIEGEN: I just assumed you would have all your testimony right by you.

THE WITNESS: It should have been in the book, but I can't find it.

COMMISSIONER FIEGEN: Okay. On page 2, lines 19 to 23, I'm just going to have you read that. Not in the record but just so that I can have you clarify that.

THE WITNESS: So paragraph 19 to 23, "With respect to the shadow flicker for the entire

300 megawatts, there is one exceedance of the 30-hour annual limit. The exceedance is for Receptor CR2-C98-NP, which would experience 32 hours and 22 minutes per year. In this case it is my understanding from discussions with the Witness Wilhelm and Hart that the Turbine No. CR2-77 will be curtailed to limit the flicker impacts to less than 30 hours per year."

COMMISSIONER FIEGEN: So although that may be an alternate turbine -- so you will curtail that one too, if it is built or --

THE WITNESS: Just to back up for a minute, this is the Supplemental Testimony. So this is dealing with the split of the 300-megawatt project into a 200 and a 100. Subsequent to that, we filed the Rebuttal Testimony to address the Hessler alternatives.

So the latest results that we're dealing with are based on our counterproposal to the Hessler proposal. And in that there is no flicker at this -- there is no exceedance at this receptor.

COMMISSIONER FIEGEN: Oh, okay. So if I have more questions, Mr. Hessler, I guess, is going to get them. So thank you.

THE WITNESS: Thank you.

MS. CREMER: Mr. Murphy, did you have anymore redirect?

MR. MURPHY: I do. Actually I'm going to pick up on that last question because my redirect is for clarification.

REDIRECT EXAMINATION

BY MR. MURPHY:

Q. The first one is for the Commissioner. She asked if Turbine 77 was built, even though it is currently an alternate in the Hessler proposal, would there be a need to curtail?

I just want you to think that through. Because I think I know the answer, I think you know it, but I don't think that was the answer you provided.

A. So what you're saying is if we build the Crowned Ridge alternative to the Hessler proposal 200?

Q. No. What I'm saying -- let me walk you through it.

So under our proposal --

COMMISSIONER FIEGEN: I'm so glad there's another person that can ask my question.

MR. MURPHY: I just feel an obligation for you all to have a clear record for your decision. And since I live this every day --

Q. So under the proposal and the study of the Hessler proposal and what we've put into stipulated conditions that haven't been entered into the record yet but are proposed to enter into the record, we would make

primaries Turbines 97, 94, 134, and Alternate 6. What we would make as alternates are 13, 72, 77, and Alt. 5.

So what you did is a study that essentially took those alternates out that showed a differential. Am I correct?

A. Yes. That is correct.

Q. However, if in the end alternate -- what we're calling Alternate now 77 was built, would there need to be a curtailment of that turbine?

A. Yes, there would. Thank you.

Q. And the next line of my redirect goes to a question from the Intervenors yesterday on the Grant County ordinance. And, again, I'd like to walk you through some facts just to make the record clear.

The first is for Crowned Ridge II, do you know the number of turbines that are located in Grant County?

A. That would be two.

Q. And the location of those turbines, have they changed from the time you did the studies for Grant County to the studies that are included in the record in this case?

A. No. They're in the same locations.

Q. Okay. So is it fair to say your results for the Grant County ordinance that is no longer in effect but those studies were done under would be the same today as

they were then?
A. They would be the same but actually lower because in the original Grant County study at that point we had not included LNTE blades. And in the current scenario we have. So the results today would actually be lower.
Q. Is it also fair to say that in this record you have produced studies that consider the new Grant County ordinance as the threshold?
A. Yes. That is correct.
Q. So under either the old or the new, your studies show that Crowned Ridge Wind II is in compliance?
A. That is correct.
MR. MURPHY: Thank you. That's all the redirect I have.
MS. CREMER: Thank you.
Mr. Swanson.
MR. SWANSON: Thank you. Just a question or two.

RECROSS-EXAMINATION

BY MR. SWANSON:
Q. Mr. Haley, you were asked by one of the Commissioners as to the greenhouse receptor that you employed in your study?
A. Yes.
Q. So that's omnidirectional, I gather?

A. That is correct.
Q. Assume with me that there is a shadow flicker coming from a turbine located to the east of a house and they have no windows on that east wall but they have windows on the west of the house, along with buildings and structures and trees or open areas which would also be receiving shadow flicker.
Is there a reflective effect at all from those other items that are arrayed to the west of the house that receive and reflect back shadow flicker into the windows of the home that are on the west wall of the house?
A. The greenhouse receptor basically will accept or record shadow from all directions all the time with no blockage from anything. There is no reflection of shadow. That's not a thing.
Q. All right. So you're telling me that if people are in the house and they're looking out to the west to see the shadow flicker arrayed over these other structures, whether it's trees or grass or other buildings, they're not going to notice or be annoyed by that shadow flicker?
A. Shadow flicker occurs inside a building, in a room. So if there's no window into that room where the shadow flicker can get into the room, then there will be no shadow flicker.

Q. Would you agree with me there is a divergence of opinion as to what shadow flicker means, that it could include shadow which is falling on exterior components of a house or outdoor structures or greenways or anything else?
A. No, I would not.
Q. All right. So shadow flicker doesn't exist as to cars that are driving down the interstate under your definition?
A. That has nothing to do with a wind farm.
Q. Well, what if the wind farm is close enough so that it's emitting shadow flicker onto an interstate and there is traffic on the interstate?
Are you saying the cars are not subject to shadow flicker because it's not inside a house?
A. Yeah. That's what I'm saying.
Q. That's for your -- is there a divergency of opinion on that of professionals in your line of work?
A. No. Not that I'm aware of.
Q. So everybody agrees that shadow flicker is a problem only when it's occurring inside a house?
A. More or less, yeah.
Q. Okay. By studying the shadow flicker maps is it possible to determine whether the house that you have studied by way of this greenhouse receptor is receiving

shadow flicker from one, two, or more wind turbines?
A. Yeah. The model will add up the cumulative shadow that is contributed from every turbine that it's receiving --
Q. Excuse me. So all of that is factored into the 30-hour tally?
A. That is correct.
Q. Or whatever the estimate is.
Based on your knowledge of the project and the work that you've done, is it common for the homes that you studied, if you know, to receive shadow flicker from only one turbine in one direction as opposed to multiple turbines in a variety of locations or directions?
A. Any combination is possible. So anything from one to you could have contributions from four or five.
Q. The maps should tell us if we study them with some care, I assume?
A. Yeah. If you can decipher how the ISO lines work, you can tell which turbines are contributing. And we can also generate tables that show that.
Q. Say that again. You can generate a table which shows --
A. Which shows the individual contributions from each turbine.
Q. All right. So that's not part of your evidence in

this case, though, is it?
A. No. But we present the total.
Q. Who has that record?
A. I'm not sure what you're -- what do you mean by that?
Q. Well, you said -- oh, you present the total, but you don't break it down on a turbine-by-turbine contribution basis?
A. Not for reporting for Application purposes. Because there we're concerned about compliance. But for the purposes of making decisions on what to do about moving turbines to minimize shadow, I provide that to my clients so that we can make decisions.
Q. All right. So has that work already been performed?
A. Oh, yeah. I mean, the turbines are set based on all of those considerations.
Q. All right. So that's detailed information on a turbine-by-turbine to receptor-by-receptor basis. That information's already in the hands of Crowned Ridge is your testimony?
A. Used for design purposes, yes.
Q. In response to Chairman Hanson, I believe, he asked you about snow cover as a reflective or an absorbant type of factor. And I believe you indicated that snow generally was a very grabbing kind of ground cover?

A. Yes.
Q. Or absorbing, let's call it?
A. Yeah.
Q. What about ice?
A. Ice would be reflective.
Q. Would snow that has an ice type cover on it be reflective as well, as well as ice?
A. Well, there again, it would be some combination of absorption and reflection.
Q. All right. So ice would call then for a factor of zero, I gather?
A. If it were solid ice everywhere, then you would probably call it a zero.
Q. All right. And, again, using that formula is important only with respect to the sound waves which would be reflecting off the ground. Am I correct?
A. Not really.
Q. Not really what?
A. There is a reflection and there's absorption and there's some combination in between.
Q. All right. But there are sound waves when you're dealing with emissions from an 80 or 90 meter hub height. There are sound emissions which travel directly from the source to the receptor without being involved in attenuation or being reflected or absorbed on the ground.

Do you agree with that?

A. Yes, I do. But the 9613-2 model is not a physics-based model, which we talked about yesterday. It's an empirically derived model. And we're not using exact physical equations to describe what happens in nature.

There are empirically derived factors such as the ground absorption attenuation factor that has been proven through trial and error basically to be the right factor. We don't know exactly what physical formulas make that up, but it doesn't matter if the net result of combining those gives you the right answer.

MR. SWANSON: All right. Thank you.

MS. CREMER: Thank you.

Ms. Christenson.

MS. CHRISTENSON: Good morning. Thank you. And thank you for clarifying the Dakota Range question.

RECROSS-EXAMINATION

BY MS. CHRISTENSON:

Q. So yesterday when you said Dakota Range was included and now you realize they weren't, I have some questions regarding that.

Do you know off the top of your head how close the closest Dakota Range turbine is in relation to the Crowned Ridge Wind II study area?

A. Not off the top of my head, but it's way more than five miles.
Q. Stop me if this is testifying, but I looked at the Dakota Range map, and the project area comes down to 157th Street, and Crowned Ridge II starts at 163rd Street. So that would be -- since we do miles, that would be six miles from project area to project area, is my understanding.

Do you agree with that? My math? Six?
A. I don't know. I would have to go and measure the distance between the closest turbine and the closest receptor because that's what would count for my calculations.
Q. I see.

You model two kilometers outside the project area. Am I correct?
A. We encompass -- we include in the model any occupied structure that is within two kilometers of a wind turbine.
Q. Within a wind turbine. So not even to the edge of the project area if there's no receptor?
A. Within two kilometers of a wind turbine. We actually build a buffer, and if the receptors fall within that two kilometer buffer, we include it in the calculations.

Q. Okay. Well, when I looked at a map, and I could be wrong because I didn't use a scale ruler and there's no real way to tell other than like what Tyler did yesterday, just kind of hold your finger up there, I thought it was probably 4 and a half miles to a Dakota Range turbine from the project area that is called Crowned Ridge Wind II. And I'm going to say it, but then we'll qualify it. Okay.

In your testimony in Docket 19-003 you included some remnants of Dakota Range turbines 20 to 25 miles away. And yesterday you clarified that that's probably more -- you think, remnants would be 3 miles; is that correct?

A. What do you mean by remnants?

Q. Sound remnants, you were talking, I believe.

A. The question or the issue was is it possible for a wind turbine 25 miles away to have any acoustical interaction with the receptors, and the answer is no.

If you're beyond three miles away, there's probably no interaction. If you're at five miles, there's definitely no interaction.

Q. Okay. So four miles there's possibly some interaction that would be an accumulative effect between projects. Would that be fair?

A. I would say no.

Q. So in your experience it would not be practical

to -- or good practice, I'll say, to include a project four miles from affected receptors from another project?
A. I would say it's not necessary. I'm not going to talk about good practice or bad practice because it's really a judgment call. It's more a matter of if you want to take a question like that off the table, then just include them.
So that's why we included Deuel Harvest. Even though we don't think -- or we know, I should say, there's no acoustical interaction, we included them anyway to take this doubt off the table.
Q. And how far is Deuel Harvest away?
A. I don't know exactly, but maybe five miles.
Q. So a little bit farther -- or right around the same as Dakota Range?
A. I can't -- I'd have to look at a map. My brain doesn't work that way.
Q. I'm with you. Okay.
You talked about the greenhouse sensor a little earlier being so much more conservative and that's why you use that?
A. Yes.
Q. Okay. Why do you not use the most conservative sensor for sound?
A. What would that be?

Q. I believe you said zero.
A. Oh, you're talking about the ground attenuation factor?
Q. Yes.
A. Because if we used that factor, it would be so unrealistic as to basically make the wind farm not feasible, more than likely. Your turbine spacing would be so unrealistically far apart that it wouldn't be feasible to build the wind farm. And it would be unnecessary.

It's the same reason they don't design buildings to withstand the worst possible winds that you'd ever see. Because if you did, you couldn't afford to buy the structure.

Q. Okay. Thank you.

And Mr. Hanson talked to you about the range you said of 30 to 40 dBA in a rural setting. Am I correct saying 6 dBA is a doubling of perception of sound?
A. I don't remember those rules of thumb off the top of my head, but I can say that it takes about a 3 decibel difference before you can tell the difference.
Q. Okay. So 10 dBA -- 10 dBA, it's not just subtracting 30 from 40 and saying, oh, there's 10 dBA? There's actually an exponentially increasing --
A. Yeah. Decibels are added on a logarithmic scale.

So 40 decibels plus 40 decibels does not equal 80. It equals 43.

Q. Okay. Thank you. That's helpful.

Where does your knowledge of the snow absorption -- of sound by snow, where does your knowledge of snow absorbing sound come from?

A. Two sources. One is the literature, and the other is personal experience.

Q. Freshly fallen snow, that would be the most absorptive?

A. Yes. In my opinion.

Q. You talked about the ice being reflective of sound. It would -- it would be a higher sound profile?

A. Yes.

Q. So looking at the map on the wall, all of those lakes to the east, should those receptors and those turbines maybe have a different sound attenuation factor?

A. No. Because they're not in between the turbines and the receptors.

Q. Thank you.

Then I want to talk about your scientific study with your stick and the moon. How high was your stick in the air?

A. It doesn't really matter how high it was. It's just a matter of getting it out in front of you. Because it's

the distance from the sun of that stick that counts. Whether I have it this high or that high, it's such a minute percentage of a distance from the moon it makes no difference.

Q. The reason I ask that is because I picture -- I picture my home. My home has a lot of large windows. It's got a cathedral ceiling with those great big trapezoid windows, and I get this beautiful moon view.

And I'm thinking if there was a turbine between me and that moon, that has to come through my windows.

A. I can't dispute that. Yes. If there was a direct line of sight between your eye and your house and the turbine and the moon and they were all coincident on that same line, yeah, you would definitely see the turbine interrupting or in the moonscape.

But is that going to cause flickering in your room? No.

Q. Okay. And when you -- when you do your flicker study is that the one meter by one meter window? No. That's the sound. That's not flicker.

A. We do two things. When we generate the maps, so you get the ISO lines, what I use is a 10-meter-by-10-meter square resolution. When you're generating the tables you're calculating -- for shadow you're calculating every minute of every day for the year. So that's the time

step.
Q. Okay. Thanks.
Going back to the Grant County ordinance and the receptors that I had brought up that there were only four listed on the PUC study, I believe, and correct me if I'm wrong, Dakota Range was included in that sound study for your Grant County Conditional Use Permit.
A. I don't recall. I'd have to look it up in the report because if it was, I would have mentioned it there. I'm not exactly sure exactly at what time we made the decision to start including Dakota Range. It may have been before or after that. But it would be easy to verify by just looking at the executive summary of the report.
Q. And Mr. Murphy talked about how you had changed and you were going with the -- I'm not sure exactly how he put this so he may have to interject here. You're going with the new ordinance basically on this sound study that you prepared for the PUC hearing?
A. Yeah. The current -- the current studies supporting this Application are based on the new ordinance, which is the 45 decibels and no accessory structures.
Q. Okay. So I'm not going to beat the dead horse about that you're using the wrong ordinance again today. But I will say that there are more homes in Grant County than

four. I don't think anybody will dispute me on that.

So how are we supposed to get an apples-to-apples comparison of the sound and flicker if we don't include the information from your past study to this study?

A. I guess, coming up with an apples-to-apples comparison between the two studies has never been a task I've been assigned. It's never been a question that's come up until today.

The reason that there are only four occupied structures in Grant County that are included in this Crowned Ridge II study is based on the fact that there are only two of them that are within 2 kilometers of a wind turbine. And the other two are the Intervenors that are way, way beyond the 2 kilometers. So that's why there's four.

Q. Are you aware of any changes in the -- well, let me preface with this: When you applied for your permits in Codington County and in Grant County for your conditional use permits -- and by "you" I'm talking about Crowned Ridge. I know that you are their consultant, but they were applied as one permit for Crowned Ridge I and Crowned Ridge II combined in each county.

So Crowned Ridge I is included in all of your studies in the county, Crowned Ridge I and Crowned Ridge II combined. Since that time that we received the

Conditional Use Permit, Crowned Ridge I portion of that permit, the county permits has been built, are you aware of any changes that occurred in Crowned Ridge I since there was a permit given in Grant or Codington Counties?

MR. MURPHY: Objection. It goes beyond the scope of my redirect.

MS. CREMER: I would sustain.

MS. CHRISTENSON: That's all I have. Thank you.

MS. CREMER: Mr. Robish.

MR. ROBISH: Yes. Al Robish.

RECROSS-EXAMINATION

BY MR. ROBISH:

Q. Isn't my home one of the receptors in your study?

A. Yes, it is.

Q. What about my neighbors that are right around me that are a half a mile away and a mile away? What about their sound?

A. I don't know. I'd have to look at the maps to know what you're talking about.

Q. There's probably 10 of them within two miles of my house that should be affected by sound studies in Grant County by Strandburg?

MR. MURPHY: Objection. Foundation, as well as testifying. He needs to lay a foundation if he wants the witness to understand the neighbors he's talking about.

MS. CREMER: Do you understand?
MR. ROBISH: No.
MS. CREMER: So you might have a visual image of what you're talking about in your head.
MR. ROBISH: Okay.
MS. CREMER: But none of the rest of us do. So we don't know who the neighbors are, how far they are.
MR. ROBISH: Could I give the names?
MS. CREMER: Well, I don't know if he would be able to associate a name to a --
MR. ROBISH: Okay.
Q. Well, does it help from my location, the neighbor to the north is half a mile away, a neighbor to the west is three-quarters of a mile away, and a mile away?
Does that help at all?
A. Not really. But what I can offer up is that the way that we determine which houses to include in the study is based on how far they are from the nearest wind turbine in the project, in the Crowned Ridge II project. And in this case -- and that distance is 2 kilometers from a turbine.
So the neighbors you're talking about I'm assuming are beyond that 2 kilometer limit, which is why they aren't included. But I would have to look at maps to verify that.

Q. Probably the one to the north would be to the west -- they should be running parallel with that turbine, Evjen's turbine?

Yeah. And maybe Tim Novak Junior's. He's probably -- he's the one with the autistic child, and he's just east of that one within a mile and a half. Those people need to be protected too.

MR. MURPHY: Objection. Same objection as before. The foundation still hasn't been laid, and the pro se Intervenor is testifying.

MS. CREMER: You are testifying. You just need to -- you can lead him some to ask your question. And I don't know if you want to show him a map and show him where these people --

MR. ROBISH: I don't have one to show him right now.

I probably don't have anymore questions then so --

MS. CREMER: All right. Thank you.

Staff.

MS. EDWARDS: Thank you.

RECROSS-EXAMINATION

BY MS. EDWARDS:

Q. And picking up where Mr. Robish left off, can you turn to Exhibit A14-1.

Actually I bet you don't need to have it in front of you. You'll probably know off the top of your head.

That exhibit would be your sound study, I believe. Is it accurate that that would include an ISO map?

(Mr. Murphy provides the witness with the document.)

A. Yes. That would include ISO maps, yes.

Q. So if you didn't -- even if you didn't have the house as a receptor, by looking at one of those maps, would you be able to get a rough idea of whether or not houses in that area fell within the county noise level standard?

A. Yes. Definitely.

MS. EDWARDS: Okay. And I can't pick it out because I don't know where you live, Mr. Robish, but --

Q. Now I'm going to turn your attention back to what we marked for identification purposes as S7. Can you turn to Condition 26 on that, please.

A. Okay.

Q. And you talked a lot about attenuation factor with the Commissioners in some follow-up questions. So with what you know of Condition No. 26, would attenuation factor come into play there, or would that be an actual result? If you understand my question.

A. I'll read this first.

(Witness examines document.)

Q. So pursuant to that condition, if it were enforced by the Commission, would it measure actuals, or would there be an attenuation factor figured in?
A. I'm not sure that the attenuation factor is applicable to the measurement process. My firm doesn't conduct field measurements, but we do have another witness that will be coming up after me that could discuss that better than I can.
Q. Okay. And I'm going to hand you Exhibit S1. Can you please turn to, in S1, DK_2. And then page 63 of 157. 68. I'm sorry.
A. Page 68?
Q. Yes. Of 157 in DK_2.
A. It's a map?
Q. And what does that map depict, if you know? You can take a second to look at it.
A. What was your question?
Q. What does that map you're looking at depict?
A. This is a map indicating where the Intervenors' structures are relative to the project.
Q. And does it include other wind projects in the area?
A. It includes Crowned Ridge I.
Q. Is yours in color? I'm sorry. I don't believe it is.
A. No. It's black and white.

Q. Okay. So during his line of questioning -- during Mr. Robish's line of questioning, if you're looking at that map, was it your understanding he was referring as to turbines from Crowned Ridge I or Crowned Ridge II?
A. He would definitely be talking about turbines in Crowned Ridge I.
Q. Okay. Thank you.
How many people called the cops while you were waiving a stick at the moon at an elementary school in the night?
A. It was dark enough they couldn't see me.
MS. EDWARDS: No further questions.
MS. CREMER: Okay. I'm trying to catch where I am here.
I believe a couple of the Commissioners had further questions.
COMMISSIONER NELSON: I do have two.
You indicated that when you're doing your studies and you're identifying what receptors to include you went 2 kilometers outside was it the project boundary or away from the closest turbine?
THE WITNESS: Away from the closest turbine.
COMMISSIONER NELSON: So earlier you testified that it would be possible for sound to go up to 3 miles. Why would you not use 3 miles instead of 2 kilometers?

THE WITNESS: Because of the attenuation of the sound with distance. By the time you get out to that distance, the sound level is low enough that its contribution is essentially zero when you combine them with a logarithmic scale.

COMMISSIONER NELSON: Okay. So I understand that could be true at 3 miles. So is that also true at 2.1 kilometers?

THE WITNESS: There is a combination of things going on. One is is that if the sound level at a location is approximately 10 decibels lower than --

Put it this way: If the sound contribution from one turbine is 10 decibels or more lower than the sound contribution from the other, when you combine them you won't get any adding of sound. You'll only have the higher number. So that comes into play as you get farther out.

So if you're reading 45 decibels from one turbine and the other turbine is contributing 32, 32 plus 45 is going to equal 45.

COMMISSIONER NELSON: Okay. I understand that, but that's not my question.

So let's assume for this questioning purpose that you have a single turbine and you have a single receptor that is 2.1 kilometers away from that turbine.

Is that receptor going to be -- going to be affected by the noise from that single turbine?

THE WITNESS: Yes, it will. But it will be so far below the thresholds that it's not important.

COMMISSIONER NELSON: Okay. So what I'm hearing from you is as long as you're 2.1 kilometers away, you're going to be below either the 50 or the 45 threshold?

THE WITNESS: Yes. Definitely. And the cumulative effects are going to be negligible, and the background noise will also mask.

COMMISSIONER NELSON: Thank you. I want to go back to some of the questions that Mr. Swanson had. I'm getting a clear picture.

There is a distinct difference between shadow and shadow flicker; correct?

THE WITNESS: Yes, there is.

COMMISSIONER NELSON: And all of your studies deal with shadow flicker only; correct?

THE WITNESS: That is correct.

COMMISSIONER NELSON: And so we've been putting all of this focus on shadow flicker, and I understand why.

Is it possible that shadow could be an annoyance?

THE WITNESS: I guess I think that's subjective.

I suppose to some people it could be, and to others they probably never thought about it.

COMMISSIONER NELSON: So if it's an annoyance to some people, why are we not putting any focus at all on shadow?

THE WITNESS: I really don't have an answer for that.

COMMISSIONER NELSON: Well, I'll just tell you, I mean, this is an interesting question to me because if you've got an annoyance factor, it seems that there ought to be some focus on it.

But in your practice that's never come up?

THE WITNESS: Never.

COMMISSIONER NELSON: Thank you.

MS. CREMER: Kristie, did you have a question or Gary?

Oh, okay. So final redirect, Crowned Ridge.

MR. MURPHY: Nothing further. Thank you.

MS. CREMER: All right. Thank you, Mr. Haley. You may step down.

(The witness is excused.)

MS. CREMER: And who is your next witness?

MR. SCHUMACHER: Crowned Ridge would call Richard Lampeter.

(The oath is administered by the court reporter.)

DIRECT EXAMINATION

BY MR. SCHUMACHER:

Q. Please state your name, business title, and company for the record.

A. Good morning. My name is Richard Lampeter. I'm employed at Epsilon Associates located at Maynard, Massachusetts. I'm an associate there, and I also manage the acoustics group.

(Discussion off the record.)

A. Sorry. My name was Richard Lampeter. I'm an associate at Epsilon Associates located in Maynard, Massachusetts. I also manage the acoustics group there.

Q. What is your role with the Crowned Ridge Wind II project?

A. My role has been to provide advice on sound-related issues such as low frequency and infrasound and the postconstruction sound protocol.

Q. Please provide a short overview of your education and experience.

A. I have over 15 years of experience in conducting impact assessments for various developments across the United States, including approximately 90 wind energy projects. Prior to joining Epsilon, I graduated from Lyndon State College in Vermont with a Bachelor's of Science in environmental science.

Q. Did you file Prefiled Direct Testimony and exhibits on July 9, 2019, that are marked as A7 and A7-1 through A7-3 and Prefiled Rebuttal Testimony on January 8, 2020, that is marked as A23?
A. Yes.
Q. Do you have any changes or corrections to your prefiled testimony and exhibits?
A. No, I do not.
Q. Please provide a short overview of your prefiled testimony.
A. Thank you.
The primary purpose of my testimony is to support the adoption of a postconstruction sound protocol. As explained in my Rebuttal Testimony, Staff witness Mr. Hessler and I are in agreement on the protocol for use at Crowned Ridge Wind II, and that protocol has been set forth in the to-be-submitted stipulated conditions.
MR. SCHUMACHER: No further questions for this witness and would pass for cross-examination.
MS. CREMER: Thank you.
Mr. Swanson.

CROSS-EXAMINATION

BY MR. SWANSON:
Q. Mr. Lampeter, you have sponsored Exhibit RL3, which is your -- I believe that is your article that you wrote

about LFN and infrasound from wind turbines?
A. That is correct. I was the co-author on that.
Q. All right. Now RL2 is a little bit different. In RL2, which is your proposed sound construction protocol -- strike that.
I want to stay with RL3. At page 3 of Exhibit A7, line 23, your research -- and I believe it was independent research that you're describing. Am I correct on that?
A. That is correct.
Q. It wasn't simply --
A. It was -- it was for NextEra Energy Resources, but it was independent and peer reviewed and published.
Q. All right. And you did field research on this. Am I correct?
A. Yes. That is correct.
Q. All right. You found that there was no audible infrasound at 1,000 feet from a turbine. Am I correct?
A. Correct.
Q. Is there also an inaudible component to infrasound?
A. Well, the definition of infrasound is sound levels below the frequency of 20 hertz. And typically that is defined as the inaudible region.
The audibility threshold does extend beyond 20 hertz. So if the sound level is high enough in those low

frequencies in that infrasound region, it can be audible.
Q. All right. So you didn't find audible infrasound at 1,000 feet. Were you able to determine whether there was a preference of other kinds of infrasound?
A. We did measure sound levels below 20 hertz.
Q. All right. And so that would be inaudible?
A. Correct. That's in the inaudible range.
Q. All right. Did you do any measurement as to how far from a wind turbine audible components would have reached?
A. We did not determine how far out. The question was to determine at 1,000 feet is the sound level in those frequencies audible and, therefore, cross a particular threshold.
Q. All right. Was there inaudible infrasound at 1,000 feet from the turbine?
A. Yes. That is correct.
Q. Did you establish whether it was present at any greater distance from a wind turbine?
A. Yes. We did measure at distances further away.
Q. And what was the maximum distance you would have measured?
A. I believe it was 1,500 to 2000 feet, but I'd have to look back at that. That's not one of the key conclusions

or the purpose of the study.
Q. And you're not mentioning that in your exhibits, are you?
A. No, I did not.
Q. Do you have any information as to how far infrasound of an inaudible nature might extend from a wind turbine?
A. I do not know how far out.
Q. All right. That's a distance you've never plumbed or researched?
A. No. I've seen in the research where there's been measurements greater distances than that, but, again, the focus has been to evaluate a criteria, and the concern is when is the criteria exceeded and what's that closest distance.
If you find an acoustical signature or a sound level at a greater distance, it's not necessarily relevant to the evaluation you're trying to conduct in this case, audibility.
Q. So audibility was what you were attempting to determine.
A. With respect to infrasound, yes.
Q. All right. Is it possible that there would be a subset or a portion of the population that would be annoyed by inaudible components of infrasound?
A. There are other witnesses prepared to testify that

are going to talk about health effects, and I would prefer to defer those questions to them.

Q. All right. And who would that include?

A. That would be Dr. Ollson and Dr. McCunney.

Q. All right. At page 3 of your Exhibit A7 you also mention that the environment is -- has other aspects of low frequency sound, and you mention refrigerators and, among other things, ocean waves. Am I correct?

A. That is correct.

Q. Isolating now on a rural residence within or near the boundaries of this proposed wind farm, would you agree with me that the wind farm itself is going to be the overwhelming presence or emitter of low frequency sound?

A. No, I would not.

Q. Okay. What other low frequency sound would exist there?

A. Well, as stated, in the interior of one's home there are a variety of mechanical devices that will create infrasound in low frequency, such as refrigerators, an air conditioner.

In a natural environment you've seen and the data has shown that wind noise through various environments will create low frequency noise. Thunder infrasound in low frequency noise as well. So there are other sources.

Q. So usually if someone's bothered by a noise, in my experience, and it's within their home, they probably set about to either fixing it or getting used to it.

Would that be a safe assumption?

A. Can you state that again?

Q. Well, if someone is bothered by infrasound coming from an air conditioner or something of that sort inside their home, they would either get used to it or fix it.

A. Since infrasound would be inaudible, I don't know of a case where someone has expressed a case that the infrasound was bothering them from a particular item.

Q. All right. So you're talking about inaudible infrasound when you mention this?

A. Correct.

Q. All right. I thought we were talking about audible infrasound as comes from -- I can hear a refrigerator, for example, or an air conditioner. I don't often hear ocean waves, but if we're inside a home that's in the boundaries or near the boundaries of the wind farm, are you testifying that the wind farm itself would not be the major source of low frequency noise and infrasound experienced in that home?

A. There's a difference between what is measurable and what is audible and experienced. So as with any sound source, there's a variety of frequencies that make up the

sound from that particular device or in that environment.

So there is low frequency and infrasound from things such as air conditioners, refrigerators, washing machines inside a home. At the infrasound region those levels would be less than the audibility threshold but still potentially greater -- will be greater than the infrasound in specific frequencies perhaps from wind turbines.

Q. One of my clients is Mr. Greber, Mary and Steven Greber. And I believe their home is predicted for a 44.5 decibel. Their receptor is CR2-D221-NP.

In listening to the testimony of Mr. Haley this morning, if we were to compare 40 dBA with 44.5 dBA, that difference on a percentage basis would be somewhat more than 200 percent, would it not?

A. Comparing 44 to 40?

Q. 44.5 to 40.

A. From a perception basis it would fall into the category of perceptible. So there's -- as Mr. Haley was indicating in his testimony, there is 0 to 3 decibels is roughly the range of perceptibility. And this goes back to the other question. Then there's noticeable at 6 decibels. And then twice as loud, 10 decibels.

Percentagewise, it depends what you're talking about because it's logarithmic in nature. Are we talking about

the sound pressure, the sound pressure level? There's different ways to look at it. The clearest way to so look at what's perceptible and sort of the doubling of loudness perhaps and that's the 3, 6, and 10 ways to compare that difference between sound levels.

Q. All right. So to go back to my question then, between 40 dBA and 44.5 dBA it's certainly a perceptible difference?

A. Yes. That is correct.

Q. But it's not a doubling of sound?

A. Correct. It's not twice as loud.

Q. Somewhere short of twice.

A. Well, it does not sound twice as loud. If you have two sound sources and you -- whatever the numbers are, we could say one sound source is 40 and the other sound source is 40, you're doubling the sound. That only results in a 3 decibel increase in the level due to the logarithmic nature of combining sounds and sound sources.

Q. Okay. Now I understand that you are involved in the design of the postconstruction sound protocol. Am I correct?

A. That is correct.

Q. So the objective, as I understand it, is to determine what the sound emission is but exclusive of all unrelated background noise. Am I correct on that?

A. That is correct.
Q. Have you determined what the current level of background noise is in this area exclusive of the wind farm activity?
A. For a proper evaluation of the sound level due to the project you would want to collect those background measurements close in time to the operational measurements and allow a subtraction as outlined in the condition.
Q. So this is something that's coming up that you will be undertaking, as I understand it?
A. If it becomes a condition and then is requested and required by the Commissioners, then that process would go forth to do both an operational and then a series -- I believe it's 10, minimum of 10, shutdowns during the program to establish background at that time. Because background will vary.

And using data from a year, two years, or general numbers for this type of environment creates more certainty in trying to establish what the operational sound level is.
Q. Were you here for Mr. Haley's testimony?
A. Yes, I was.
Q. And I believe Chairman Hanson had asked a question of an estimate of what the current background noise was

now in this rural area? Did you hear that testimony?
A. Yes, I did.
Q. And I think the response was somewhere in the 30 to 35 dBA? Am I correct on that?
A. I believe it was 30 to 40 was the response given.
Q. Well, there was a separate answer I think that said 30 to 35.
A. Perhaps. I don't remember that piece of it.
Q. All right. And you've done no measurement of the background noise at this stage.
A. We have taken measurements in South Dakota in the project area. Yes, I have.
Q. Okay. You've done those measurements?
A. I have supervised them. I have not personally been in the field.
Q. Was it your company that did it?
A. Yes. It was us.
Q. And do you have access to those studies or that report?
A. It was not a formal study completed and submitted.
Q. Do you have knowledge of what the results were?
A. Yes, I do. I have knowledge of the measurements.
Q. All right. What is your knowledge?
A. I would say that the range would be broader for the ambient sound levels, and that range being approximately

20 to 60.
Q. 20 to 60 dBA?
A. Yes.
Q. It depends on whether you're close to a highway or not, for example?
A. It depends how close you are to an interstate, local traffic, wind conditions, local sources.
Q. Do you have access to a chart or a plotted map or anything of that sort that would show those readings?
A. Not right here.
Q. But you have prepared such a document?
A. I've put together a draft summary.
Q. Okay. Of the range that you've talked about, 20 to 60, does it predominate in the lower range of readings that you've reported on? In other words, are there more readings in the 20 to 30 range than there are in the 30 to 40 range?
A. It's been a while since I've looked at the data. I would say that it's probably -- probably fairly evenly spaced out, but it depends on what the winds were at that given time.
So if it was a windier period, the sound levels would be higher than if it was a lighter wind period. And these environments often the wind can be a primary driver of the sound levels, and rustling vegetation

associated with that.
Q. If it's a still night, would it tend to be in the lower range of the reading range that you talked about, in the 20 dBA?
A. It can be. But if there are insects, that can often push up the sound level. So summertime period, even though it's calm out, you have other sources of sound.
Q. Did you take readings on the Fourth of July?
A. No. I don't believe we did.
Q. All right.
MR. SWANSON: Thank you. That's all I have for this witness.
MS. CREMER: Thank you.
Ms. Christenson, do you know, will yours be long?
MS. CHRISTENSON: Why would you say that?
MS. CREMER: It's a mystery.
MS. CHRISTENSON: No.
MS. CREMER: No. All right. Then why don't you go ahead and proceed.

CROSS-EXAMINATION

BY MS. CHRISTENSON:
Q. You're grateful it's not going to be long; right?
A. I'm happy to answer as many questions as you have.
Q. Mr. Lampeter; is that right?

A. Correct.
Q. Did Crowned Ridge Wind II ask you to perform a preconstruction sound modeling study?
A. Yes. That study was conducted, and they requested it.
Q. And that's the study that you were talking about that's not been published or submitted?
A. That's correct. We went and collected the data and put together some draft summary findings, and that's where it currently stands.
Q. Thank you.
Did Crowned Ridge Wind II ask you to perform any studies or modeling regarding low frequency noise or infrasound?
A. No.
Q. According to your resume, you have experience in air quality modeling. Did Crowned Ridge Wind II ask you to perform any air quality study or model for this project?
A. No.
Q. Were any of the readings that you've taken in the Crowned Ridge Wind II project in this study that we talked about a little bit ago taken after a freshly fallen snow?
A. No.
MS. CHRISTENSON: That's all I have.

MS. CREMER: Thank you.

Mr. Robish.

MR. ROBISH: I have none. Thank you.

MS. CREMER: Thank you.

Staff.

CROSS-EXAMINATION

BY MS. EDWARDS:

Q. Thank you. Are you familiar with the compliance testing protocol?

A. Yes.

Q. Are there times of the year or temperatures below which testing could become difficult or impossible?

A. Yes.

Q. Can you explain that?

A. Under very cold temperatures the equipment becomes less reliable in the sense that the LCD screens become difficult to operate and use. It just doesn't respond to working through the menus and setting things up so that's a limitation.

There is also -- with the equipment itself, some of it's metal. Some of it's plastic. So trying to combine and put together the equipment and do accurate calibrations becomes very difficult. Working with computers to download the instrumentation becomes a challenge.

So very cold weather or periods you would want to avoid. Also for safety of the individuals in the field.

MS. EDWARDS: Sure. Thank you. No further questions.

MS. CREMER: Thank you.

So we're at Commission questions. We're also bumping up against 10:00.

(Discussion off the record.)

CHAIRMAN HANSON: I only have a few, but his answers are going to be real long. I'll see how quickly I can get through mine.

Good morning, Mr. Lampeter.

THE WITNESS: Good morning.

CHAIRMAN HANSON: Welcome to South Dakota.

THE WITNESS: Thank you.

CHAIRMAN HANSON: You coauthored a study. And can you tell us on -- it's Exhibit RL3. Can you tell us, is that supported by other similar studies, your conclusions? Are they supported by other studies?

THE WITNESS: I would say it's somewhat unique and not completely duplicative in the fact that the study measured sound levels which has been done and those sound levels have been used in different ways for other studies but this one looks specifically at ANSI standards.

So I haven't seen another study that's done exactly what's been done here. The sort of -- the conclusion that the low frequency sound and infrasound is not of concern is supported in other ways through other studies.

So this particular study looks at it from the perspective of audibility for infrasound and ANSI standards and a couple of European and there's a couple Japanese guidelines that focus on infrasound and low frequency. We went at it from that perspective.

There are other studies that come at it from a different perspective, some epidemiological studies which come to conclusions that low frequency noise and infrasound is not a concern for wind turbines.

CHAIRMAN HANSON: See, I knew your answers would be longer than my questions.

Tell me then, similar is a fairly general term. If we're looking at it from the standpoint of somewhat of the similarities, are there studies that controvert what your studies show?

THE WITNESS: No.

COMMISSIONER NELSON: You're learning.

CHAIRMAN HANSON: Have you ever studied in relationship to sound and the effect on sleep deprivation?

THE WITNESS: I haven't personally done a study on that. I'm familiar with the studies that have been published, but that hasn't been a focus of my independent work.

CHAIRMAN HANSON: Okay. Have you ever testified on behalf of Intervenors in a wind docket?

THE WITNESS: No, I have not.

CHAIRMAN HANSON: In your testimony on page 2, Supplemental Testimony, you state that there's an uncertainty factor of 2 decibels for all wind turbines.

All of the information that you put here shows a pretty conservative approach to the work that you did from the standpoint of assuring that the -- when I say conservative, the most -- I guess it would push it in the favor of making certain that there is the least amount of effect on -- of sound on receptors. Is that correct?

THE WITNESS: The model -- I'm assuming this relates to the modeling parameters.

CHAIRMAN HANSON: Correct.

THE WITNESS: So the modeling parameters that have been used here by Mr. Haley are comparable to the parameters we would include in a sound level model, and they are conservative in that under a variety of conditions the sound levels measured would be at or below the model levels.

CHAIRMAN HANSON: On that same testimony you state that there was used an uncertainty factor of 2 decibels for all wind turbines. Is that a plus or minus 2 decibels?

THE WITNESS: The manufacturer typically gives a range of plus or minus 2. In the model the way we have accounted for that in our studies and what's been done here by Mr. Haley is to add 2 to the sound power level provided by the manufacturer so that makes the sound from the wind turbines higher; therefore, the modeled number at the homes higher as well. And that's the --

CHAIRMAN HANSON: Thank you for answering my follow-up question with your answer just now.

THE WITNESS: You're welcome.

COMMISSIONER FIEGEN: I guess I do have one.

The study that you did, the coauthored study, did you say that NextEra funded that study?

THE WITNESS: That is correct.

COMMISSIONER FIEGEN: So you have done research and have had studies from other organizations more than NextEra?

THE WITNESS: That's the only one that I've been a part of that's been in a peer-reviewed journal article.

COMMISSIONER FIEGEN: Okay. So since you're a researcher and I'm not and I watch media a lot, of

course, so what would happen if you were hired by NextEra or whoever and it wasn't the outcome that the person that paid for the study would want?

Would it still be published and peer reviewed?

THE WITNESS: I don't know the -- in that hypothetical case, I don't know what necessarily would happen. I know that NextEra, though, did not influence us. They were -- we set up the boundaries of the study.

COMMISSIONER FIEGEN: Sure.

THE WITNESS: And that they were -- they've seen -- at the time this was in 2011. The issue was starting to come up, and they wanted to know the answer.

COMMISSIONER FIEGEN: Right.

THE WITNESS: So they wanted to know if it's a real concern, how do we build projects that are not creating a nuisance?

So they were interested in the findings, and I would have expected if they did see that there were findings, they would adjust how they develop projects.

COMMISSIONER FIEGEN: Okay. Thank you.

MS. CREMER: So normally we would go to your redirect, but it is 10 o'clock so we will -- and we will back to that. And let's break until 10:15.

(A short recess is taken.)

MS. CREMER: Crowned Ridge, did you have any

redirect for this witness?

MR. SCHUMACHER: We have no redirect. Thank you.

MS. CREMER: All right. Thank you for your testimony. You may step down.

THE WITNESS: Thank you.

(The witness is excused.)

MS. CREMER: And you may call your next witness. And could you just for planning purposes tell us who the next few are.

MR. MURPHY: We have three more witnesses: Dr. McCunney who will go next, Dr. Ollson, and then Sarah Sappington.

MS. CREMER: All right. Thank you.

MR. MURPHY: Call Dr. McCunney.

(The oath is administered by the court reporter.)

DIRECT EXAMINATION

BY MR. MURPHY:

Q. Please state your name, business title, and company for the record.

A. My name is Dr. Robert J. McCunney. I'm a physician, and I practice at the Brigham & Women's Hospital in Boston.

Q. What is your role with Crowned Ridge Wind II?

A. I was asked as a consultant to review documents that

have been submitted in this case to address potential health-related issues associated with the project.
Q. Please provide a short overview of your education and experience.
A. I have a bachelor's degree in chemical engineering from Drexel University, a master of science degree in environmental health from the University of Minnesota. I have a medical degree from Thomas Jefferson University in Philadelphia. I trained in internal medicine at Northwestern University Medical Center in Chicago, and I did a fellowship in occupational and environmental medicine at the Harvard School of Public Health.
Q. Did you prefile Supplemental Testimony and exhibits on September 20, 2019, Exhibit A17 and Exhibits A17-1 through A17-8?
A. Yes.
Q. Do you have any changes or corrections to this prefiled testimony or exhibits?
A. No.
Q. Please provide a short overview of your testimony.
A. Based upon my review of the documents and testimony introduced in this case, including the sound and flicker thresholds, Crowned Ridge Wind with which they must comply, there are no health or welfare concerns associated with the project as proposed by Crowned

Wind II.

Although reports suggest that some people living near wind turbines may find the noise annoying, noise is not an adverse health effect. It is not coded as a specific diagnosis in the latest version of the International Classification of Diseases, that is the 10th edition.

In fact, what's been shown through research is a person's attitudes towards wind energy, potential economic benefits, and visual aspects of the turbines have actually been shown to be more important than noise to determine why some people report annoyance with wind farms.

Therefore, while some people may be annoyed with the wind farm, Crowned Ridge Wind sound and shadow flicker thresholds do not pose health or welfare issues for the residences.

MR. MURPHY: Thank you.

I offer Dr. McCunney for cross-examination.

MS. CREMER: Thank you.

Mr. Swanson.

MR. SWANSON: I have no questions of this witness.

MS. CREMER: Thank you.

Ms. Christenson.

CROSS-EXAMINATION

BY MS. CHRISTENSON:

Q. Good morning.

A. Good morning.

Q. In response to what you just said, noise is -- or annoyance is not a health effect? Is that what you said?

A. Yes. That's correct.

Q. But annoyance can possibly lead to some health effects?

A. Well, perhaps you could define some of those circumstances. Generally speaking, annoyance is not a health effect.

Q. So stress from annoyance, sleep deprivation could lead to a health effect? I guess that would be my question.

A. Well, certainly sleep deprivation can lead to adverse health effects, no question.

Q. Thank you.

Is there a code for vibroacoustic disease in the International Classification of Diseases?

A. There may be. I haven't looked at that recently.

Q. If I said T75.2, would that maybe ring a bell?

A. Perhaps, yes.

Q. Okay. Okay. How close is your home to the nearest wind turbine?

A. Well, I haven't measured it. I've recently moved. Before I was about a mile away from a wind turbine, about the distance you are from the nearest Crowned Ridge Wind turbine.
Q. And how long did you live in your home a mile away from a wind turbine?
A. About 20 years.
Q. And how many wind turbines were within a mile of your home?
A. There was one particular wind turbine.
Q. And how tall was that wind turbine, if you know?
A. I can't recall, but I could certainly see it from my porch.
Q. And you wouldn't happen to know the generator size?
A. No, I don't.
MS. CHRISTENSON: Okay. Those are all the questions I have. Thank you so much.
THE WITNESS: Thank you.
MS. CREMER: Mr. Robish.
MR. ROBISH: I have none.
MS. CREMER: Thank you.
Staff.
MS. EDWARDS: No questions.
MS. CREMER: Chairman Hanson.
CHAIRMAN HANSON: Good morning.

THE WITNESS: Good morning, Mr. Hanson.

CHAIRMAN HANSON: Your presentation is very complete. I appreciate the way that you put it together.

Your cross-sectional study that was carried out in 2013, are you familiar with any studies post that study?

THE WITNESS: I'm not sure. The cross-sectional study? To which study are you referring?

CHAIRMAN HANSON: You referred to, This study is attached to Exhibit RMS-2. It is a cross-sectional study that was carried out in 2013 and includes 1,238 randomly selected participants.

THE WITNESS: Oh, yes. That's the Health Canada Study that included about 1,200 people. That's correct. I believe it was initiated around 2013, but the publications came out anywhere from 2016 to 2018.

CHAIRMAN HANSON: Are you familiar or aware of any studies of similar type that have occurred since that time?

THE WITNESS: No. And as part of the preparation for this hearing, I did updated literature searches to see whether any additional studies had been published since the Health Canada reports were released, and there have not been any.

CHAIRMAN HANSON: And you are apparently not

aware of any sleep deprivation, sleep disturbance, sleep challenges as a result of wind turbines?

THE WITNESS: Certainly, the major study, the Health Canada Study, it specifically addressed potential sleep issues associated with wind turbine operations or at least living within a certain distance of wind turbines.

And what was appealing to me about the Health Canada Study, not only is it the largest study that's been published in the world's literature related to wind turbines, but the investigators looked at both what we call subjective and objective measures of sleep. Subjective, of course, is what you report and objective, of course, is what's measured.

And they used what they call wrist actigraphy, which is a fancy way of looking at movements during sleep and so forth. So there was both objective and subjective information that Health Canada included in their analysis and ultimately concluded that noise levels up to 46 decibels would not cause any sleep disturbance.

CHAIRMAN HANSON: As a physician, are you aware of any studies regarding tinnitus in which sound levels create greater problems or less challenges?

THE WITNESS: To be clear, we're talking about tinnitus, the ringing in the ears?

CHAIRMAN HANSON: Correct.

THE WITNESS: Oh, okay. Certainly, tinnitus is a troubling phenomenon for a lot of people in the medical setting. Sometimes it happens de novo, as it were, meaning for no particular reason. Other times it's very high noise levels. By that I mean in industry like near airplanes and railroads and so forth who are maybe up in 80s and 90s in certainly some manufacturing settings.

But the Health Canada Study indicated that there was no increased risk of tinnitus in their analysis.

CHAIRMAN HANSON: What about volume that a subject would hear as a result of -- if there's -- there's a ringing in the ears if there's -- oh, if you went to a Nine Inch Nails concert, it's going to be louder than if you went to listen to Bach, for instance.

THE WITNESS: Well, I prefer the Bach. But no question. And some of the noise levels in those concerts can really approach high levels that my colleagues could be more familiar with the numbers. But it wouldn't surprise me that when you get up in the 90s and 100s and certainly when you're in environments with noise that high for prolonged period of time, developing tinnitus would not be an unsurprising reaction.

CHAIRMAN HANSON: And the infrasound level from wind you're testifying is not going to affect tinnitus,

whether you can hear it or can't hear it?

THE WITNESS: No. There's no evidence in the medical literature with which I'm familiar with that would suggest that infrasound, whether audible or inaudible, would cause tinnitus.

CHAIRMAN HANSON: Okay. Thank you.

THE WITNESS: Thank you.

COMMISSIONER NELSON: Good morning.

THE WITNESS: Good morning.

COMMISSIONER NELSON: In relation to shadow flicker, if there are shadow flicker levels above 30 hours a year, is there a point where that can become or cause health impacts?

THE WITNESS: Well, certainly, as we all know, there's no debate. I mean, shadow flicker can be annoying to some people.

COMMISSIONER NELSON: Yeah. So I want to set the annoyance aside and ask specifically about health impact.

THE WITNESS: Well, the one major health impact that's been addressed and certainly raised as a concern was whether the shadow flicker would increase the propensity for someone to develop an epileptic seizure. And, in my view, that particular risk has been well addressed and found not to be a risk.

Now shadow flicker, in the absence of precipitating photoleptic [phonetic] seizures certainly can be annoying. Where that level ultimately comes into play and were to cause health effects, I don't know, to be candid.

I know we've been operating many years to keep shadow flicker less than 30 hours a year. I don't know what the number might be where it would get to the point that it would be so annoying that it would cause somebody to have a health problem. I haven't seen any settings where shadow flicker's been above that level.

COMMISSIONER NELSON: Thank you. I appreciate that. I realize it's a hypothetical question because we're placing those limits there, but was curious. So thank you.

THE WITNESS: Yeah. I understand.

COMMISSIONER FIEGEN: Thank you. Just a couple of quick questions.

When you started your opening brief comments, I just needed -- I need you to clarify because I don't think I was listening well enough.

You said something about noise does not cause any health effects? Is that what you said?

THE WITNESS: No. I didn't say noise doesn't cause health effects.

COMMISSIONER FIEGEN: See. I wasn't listening well.

THE WITNESS: Certainly noise, like any potential hazard, depending on the level and degree of exposure, essentially how high and how long, can be a problem.

I wouldn't want people to be unprotected in noise levels over 85 for any long period of time, for example.

COMMISSIONER FIEGEN: Okay. Thank you. I just needed to clarify that because I wasn't obviously listening well enough.

The other item that you brought up when Chairman Hanson was asking you, you brought up the Canada study, and you said there could be sleep issues in the Canada study within a certain distance.

What is that distance?

THE WITNESS: I'm not sure I stated that, frankly.

COMMISSIONER FIEGEN: You said something about distance and if you sleep within -- and I might just stop and see if Cheri can find the question. Or your comment on that so I can have it clarified.

(Discussion off the record.)

(Reporter reads back a portion of the testimony.)

COMMISSIONER FIEGEN: I just wanted to have you clarify that statement on what that distance was.

THE WITNESS: Oh. In the Health Canada Study, to the best of my recollection, I think that the residences were anywhere from a half a mile to 10 miles away. It may have been 11. I'll have to go back and take a look at the study, but that was the general range.

But as I have testified in other settings, in my view, the key measurement is really the noise level, not so much distance because, as I'm sure you've heard from many noise experts, the topography associated with the land associated with the wind turbines has a lot to do with what the noise levels will be, even at the same distances. So I prefer to use the noise metric as the key parameter.

COMMISSIONER FIEGEN: Okay. Thank you.

MS. CREMER: Crowned Ridge, did you have redirect?

MR. MURPHY: No.

MS. CREMER: All right. Thank you very much for your testimony. You may step down.

And, Crowned Ridge, you may call your next.

THE WITNESS: Thank you.

(The witness is excused.)

MR. MURPHY: Thank you. I call Dr. Ollson.

(The oath is administered by the court reporter.)

DIRECT EXAMINATION

BY MR. MURPHY:

Q. Please state your name, business title, and company for the record.

A. It's Dr. Christopher Andrew Ollson, Ollson spelled O-L-L-S-O-N. I'm the owner and senior environmental health scientist at Ollson Environmental Health Management.

Q. What is your role with Crowned Ridge Wind II?

A. My role with Crowned Ridge Wind II first began in late 2016 when Crowned Ridge Wind II engaged me in their discussions with all three counties during the planning and the ordinance changes that they were looking at.

I worked on proper health and siting for this project and participated in all three CUP hearings and then preparing testimony for the hearing here today.

Q. Please provide a short overview of your education and experience.

A. I hold a bachelor of science in biology from Queens University in Canada. I have a master's and Ph.D. in environmental health and environmental sciences from the Royal Military College of Canada. Over the last 20 years I've been an environmental health consultant, and I also hold adjunct professorships.

In addition to this, as part of my consulting experience over the last 10 years I've led a research group and published six scientific publications on wind turbine and health. Here specifically in South Dakota I've worked on the Dakota Range Project with Apex, the Tatanka Project with Avangrid, and both Crowned Ridge I and II projects for NextEra.

Q. Did you file Prefiled Supplemental Testimony and exhibits on September 28, 2019, Exhibit A12, A12-1 through A12-16, and Prefiled Rebuttal Testimony on January 8, 2020, Exhibit A20?

A. Yes.

Q. Do you have any changes or corrections to the testimony or exhibits?

A. No, I do not.

Q. Please provide a short overview of your prefiled testimony.

A. Thank you.

I believe that the weight of scientific evidence of over 100 peer-reviewed scientific papers published in the last 15 years in this field indicates that the Crowned Ridge Wind II project as proposed meets the test for a properly sited wind project.

Specifically, the standards that there will be no shadow flicker at homes of over 30 hours without a waiver

and that no more than 45 decibels of sound at the exterior of homes for nonparticipating residents and 50 decibels for participating residents align with the project not posing a potential health or welfare risk to the county residents.

Of course, separately there continues to be this question of what role, if any, annoyance plays in health and welfare. Scientific papers clearly show that the sound produced by a wind project has little to do with a reported annoyance living around wind turbines.

As Dr. McCunney just indicated, the annoyance is actually more strongly linked to the visual cue, so the ability to see the turbines, and how many you may have at the exterior of your house, the underlying attitude of those prior to the project coming and how they feel about the project after it's built. So that's what tends to lead to the reports of annoyance of those living around wind turbines, and it's not actually the sound itself. It's only a small portion of the annoyance.

As I said in Crowned Ridge Wind I, I'm not downplaying that some people are annoyed living around wind turbines. Not at all. Instead it's my role as the PhD researcher in this field to place annoyance into perspective, given the scientific literature.

And maybe to Commission Hanson's earlier question,

in fact, since my testimony in Crowned Ridge Wind I there has been a recent series of peer-reviewed studies published from the Lawrence Berkeley National Laboratory here in the United States, and the paper referenced in my Direct Testimony was from Dr. Hubner and her colleagues titled Monitoring of Annoyance and Stress Effects of Wind Turbines on Residents.

COMMISSIONER FIEGEN: Off the record.

(Discussion off the record.)

A. So, again, this study is entitled Monitoring Annoyance and Stress Effects of Wind Turbines on Nearby Residents, a comparison of U.S. and European samples. And this was a survey of over 1,700 people living in the U.S. around wind facilities.

They concluded that the average annoyance levels of residents near wind farms in Europe and the United States were low, with the levels for noise similar across both the European and the U.S. samples. However, they did find that European levels of annoyance were slightly higher for shadow flicker, lighting, and landscape change.

In addition, the small number of complaints that may be associated with wind projects also can't be correlated with noise. And that's within my testimony. While there is always some likelihood that individuals will

experience annoyance due to visual queues or attitudes, the scientific literature supports that if the same sound and shadow flicker thresholds imposed by this Commission in Crowned Ridge Wind I are imposed for Crowned Ridge Wind II, the project will not pose a health or welfare risk to the county residents.

MR. MURPHY: Thank you.

I offer Dr. Ollson for cross-examination.

MS. CREMER: Thank you.

Mr. Swanson.

MR. SWANSON: Thank you.

CROSS-EXAMINATION

BY MR. SWANSON:

Q. Dr. Ollson, I think you were here for part of Mr. Haley's testimony this morning.

A. I was here for all of it, yes.

Q. You were here for all of it. All right. I believe it was Mr. Haley who told us about the so-called greenhouse receptor?

A. For the shadow flicker modeling, yes.

Q. Yes. Are you familiar with that receptor?

A. Well, I'm familiar with how shadow flicker modeling is conducted and how they use what we call the greenhouse receptor as everyone of the home's in that model, yes.

Q. Well, maybe Mr. Haley identified this, but based on

my understanding of what shadow flicker is and how you regard it, I'm trying to get the dimensions on the greenhouse receptor, if you know.

How big is that receptor?

A. So the way -- my understanding, the way the model works is that it kind of goes beyond just the home itself. So what they're calculating is the potential for shadow to be cast across the project area. So those are those isopleth lines that you see so that we can actually predict where the shadow's going to be, what the flicker effect is.

And then I think Mr. Haley correctly identified, when we refer to shadow flicker from the turbines, it's within an enclosed space within the home. So the model is for each of the houses that are within the project area. They model when the shadow hits that building in a greenhouse gas -- excuse me. Not greenhouse gas. In a greenhouse mode what it predicts is that no matter where the shadow's coming from, that it will enter the house on a one-by-one meter window of dimension.

Q. All right. So there's one one-by-one meter entrance?

A. So essentially probably without getting into those type of weeds, what you can envision is that if it was the house -- let's say it was the court reporter's table

here, okay, and we were wind turbines all around her table, did any of the shadow flicker from these turbines that the sun's rising in the east, setting in the west, as the sun's rising, if there's potential for flicker onto the table -- let's say it was the house -- no matter what the levels they were predicting that would be into the home --

So let's say they were predicting -- and then as the sun's setting in the west at counsel's table over there, the ability for a shadow, if they were turbines, in the house. So no matter where the shadow's coming from and if it's predicted to hit the house itself, that would be flicker inside the home.

Q. So if it hits any area of the house, even though the receptor itself is a one-by-one meter --

A. Essentially, if the shadow is going to be cast where the house is, it's assuming that the shadow cast at that home would be inside the house, yes, is essentially the default that occurs --

Q. Right -- I'm sorry.

So it assumes it enters the house then if it hits any part of the house?

A. Essentially, yes.

Q. Well, wouldn't you have to have the dimensions of every house in order to make that determination?

MR. MURPHY: Objection. I've let this go probably longer than I should have. He did not proffer the model in this proceeding. That was Mr. Haley. And this is outside the scope of his testimony. It's essentially accepting the results of Mr. Haley's model. He did not investigate the model itself or produce it.

MR. SWANSON: Simply probing his knowledge. He is an expert on shadow flicker. I think he is an expert on how shadow flicker is gathered, determined, and quantified. And I think it's a fair point of inquiry.

COMMISSIONER NELSON: Sustained.

MS. CREMER: Kristie, we have one yes, one no.

COMMISSIONER FIEGEN: Unless he rephrases the question, I would sustain it too. Yes, ma'am.

MS. CREMER: So I will sustain the objection and -- I'll sustain it and leave it at that.

Q. (BY MR. SWANSON) Well, let's go look at something else, Mr. -- Dr. Ollson.

Let's go to Exhibit A12. And for some reason my pages aren't paginated, but it would be the second to the last page of that exhibit.

A. The one that starts with "shadow flicker shall not"?

Q. Yeah. Go to the page before that, though.

A. "Therefore, there is nothing"?

Q. Yes. Yes.

A. I'm there.
Q. "Therefore, there is nothing." And let's go to line 10.
And we're talking here about your knowledge of the origins of the shadow flicker standard; correct?
A. That's correct.
Q. All right. Now when you are referencing the 30-hour shadow flicker threshold standard, can I assume we are talking about in your parlance the narrowing of shadow flicker only to the extent that it is perceived within a home?
A. Yes. Internationally and here in the U.S. when we're looking at shadow flicker and we're looking at whether it's a local county ordinance or, for example, the State of North Dakota, their PSC has set a 30-hour shadow flicker limit, the Germans, you name it, it's always the shadow flicker at the home is what is regulated.
Q. All right. Apart from the regulation of shadow flicker inside the home, is there, nonetheless, an observance of shadow or shadow flicker outside the home that can be an annoyance or a disturbance?
A. So the very -- they're two different phenomenon. So inside the home, and as Mr. Haley described, what shadow flicker is is it's essentially a strobing -- it's a very

lazy strobing, albeit, but it's a strobing of light changing --

Let's say you were at your kitchen window preparing dinner, and you had shadow flicker a few minutes in the home. You're going to notice it in the house.

The difference is when we go outside the house there's a lot of light fraction. You know, we're outside the home. What we're seeing is the turbine when it casts a shadow in your field or let's say your yard, you're not getting that same flicker effect as you're getting as a long, lazy shadow in itself.

The body of literature and the research that has been done, looking at annoyance living around wind turbines, for the most part has entirely focused on that flickering in the home. Because the residents don't report being annoyed by the flicker on let's say the farm field or in the yard.

So the annoyance that we see and we characterize, whether it's the Health Canada Study, whether it's the other shadow flicker studies that have been done around the world talking about annoyance, it is in the home itself.

Q. All right. And if I understand you correctly then, none of the regulations that control shadow flicker deal with that phenomenon when it's outside the home such as

on an open field or in an open environment.
A. Yeah. That's correct. Because what we're looking at there is that it's just merely a shadow like cast outside the home, like any other shadowing that you would get. So there is some questions that come in the literature of do you see shadows at the exterior of your home? Do you experience shadow flicker inside the home?
And the focus and the research and all of the standards is on limiting to some reasonable number the amount of shadow flicker you'd experience in the house itself.
Q. All right. Is there any governmental agency in the United States to your knowledge that attempts to regulate shadow itself, not experienced inside the home so that it's shadow flicker but outside the home such as, for example, the same phenomena of light passing through the spinning blades of the turbine that is then received on, let's say, a busy interstate where there's traffic passing?
A. So, no, there is not. So I've worked in over 20 states here in the United States and looked at the shadow flicker regulations. And I can tell you they're not.
And maybe to talk about that interstate question that you just posted, it's -- so you've -- pretty much everybody in this room has experienced driving along the

interstate when the sun's low in the sky and you're getting that flickering through the trees and you get that kind of flicker effect through the trees as you're driving. And that rate of flicker that you're seeing in the car is much, much, greater than the rate we have here.

If you're driving through a wind project, you know, again, let's say it's early in the morning or late in the evening, as you get the shadows cast onto the roadway -- it doesn't have to be an interstate, the gravel road, whatever have you -- you're passing through that shadow, you know, instantly almost.

You're not getting a flicker effect from a wind turbine as it's casting the shadow on the road because you're simply passing that shadow instantly as you drive by. It's not the same effect as you get through the trees.

Q. In your parlance, however, you would call that shadow as opposed to shadow flicker?

A. No. In terms of what you get from the trees, that is shadow flicker because it's flicker and you're seeing the light change.

Q. Okay. And as part of my question I had asked about a turbine that is situated close enough to a road so that when the sun is in the right position it will cast that

rotating passing shadow onto the traffic.
A. And, again, as I indicated, there are no regulations in any of the states or counties, the over 20 states and numerous counties that I've worked in that govern that. Quite simply because you're passing through that shadow so very quickly, it won't affect.
Q. Just so -- again, I appreciate that. Just so that you and I understand each other, you only refer to that phenomenon as shadow when it's passing over cars or traffic on a roadway?
A. Yeah. I would still characterize that as shadow.
Q. Let's go to -- the exhibit that you are referencing in your passage here on A12, if we were to continue reading, you were talking about Exhibit CO-S-16, which you've been kind enough to present both in German and English, although I don't understand a word of German but let's go to that.
A. I have it in front of me. Thank you.
Q. Give me a moment.
Let me ask you this question: Are you familiar with the NARUC Best Practices Report from January of 2012?
A. I am.
Q. Were you a contributor to any of the literature or reports that were cited in Tom Stanton's work that resulted in the Best Practices Report?

A. I would have to check. It is possible that the Knopper and Ollson paper from 2011 may be referenced in there. I just don't know off the top of my head.
Q. All right. One of your other witnesses here, Mr. Lampeter, I believe his PowerPoint is cited in the NARUC Best Practices Report.
Are you familiar with that PowerPoint?
A. I believe you're referring to a shadow flicker PowerPoint presentation that Mr. Lampeter put together in early 2010, 2011 time frame? Yes.
Q. Yes. And so you've seen that PowerPoint?
A. I have. I do not have it in front of me, but I have seen it.
Q. Right. Now I don't believe your Exhibit A12-16 mentions this, but I understand from Lampeter's PowerPoint that the German concept of shadow flicker regulation may have started with an opinion of a judge in Germany.
Are you familiar with that?
A. I am. And, in fact, that's one of the -- I believe it was a Staff question and informational request from Staff. I provided a much more detailed 8 to 10 page report on shadow flicker and the origins of it and the German standard.
Q. All right. Is that in this case?

A. It is. It was -- I'd have to look to counsel, but I have the question here. I'm not sure exactly when --

The letter dated September 12, 2019. The Staff question was, "Did the Applicant base its 30-hour-per-year shadow flicker limit on any other factor other than the county ordinance? If so, please support."

And then there is a -- I sponsored that response, and there is an eight-page letter that accompanies that, plus all the documentation.

Q. Did you include in that documentation -- I'm not able to find that offhand, but did you include in that documentation the judge's opinion, per chance?

A. I did not.

Q. Have you ever seen the judge's opinion?

A. I have several years ago. It is in German.

Q. Do you know what year that was issued?

A. I believe it was 2011.

Q. Oh, so there's a 2011 opinion --

A. So perhaps maybe to clarify, I mean, where the origin of the shadow flicker standard comes from in Germany is that the Germans and, of course, many European countries were erecting wind turbines a lot earlier than we were here in the United States in close proximity to people.

And so what happened was one of the states in

Germany had a shadow flicker standard that they were referring to, which is in here and in this documentation. That went then to the courts. And they then from there codified it into German law with their shadow flicker standards in Germany.

And it was basically from there that other countries, including here in the U.S., we adopted not the exact same standard but standards that suited the jurisdiction that we're in. For example, here in South Dakota similar that has occurred in the last number of hearings where the no more than 30 hours of actual shadow flicker comes from.

Q. Okay. So the document that is A12-16, and I think it's dated March 13 of 2002, is that the originating document as far as you know that began the shadow flicker regulation?

A. They're actually -- I believe it is just prior to this. There was one of these states in Germany in the late 1990s -- the date would be somewhere in the '97, 1999 time frame -- that had adopted the standard and then since then has been perpetuated through the German system.

Q. So this has a -- so is this a German state document that we're looking at in A12-16?

A. This is actually the country -- as you see at the

title of the document, it's the country committee on important protection. So it's actually a national commission, as far as I'm aware.

Q. All right. And this was based then on a more localized regulation of some sort?

A. Yes. So it would be the equivalent of, you know, the State of South Dakota had a regulation, a standard, and then, for example, if the DOE was to look at it nationally here in the U.S., it's the equivalent to that.

Q. Well, let's go to page 6 of that exhibit, if you would, please, the one that's in German and English.

A. Yes. I'm there.

Q. All right. The last English entry on that page begins with the word -- the words "the actual emissions that occur at an emission location."

Do you see that?

A. I do.

Q. All right. And it goes on to discuss, before that paragraphs ends, a limit of 30 hours per calendar year. And then it goes on to say and, "beyond no more than 30 minutes per calendar day."

A. That is what it says, yes.

Q. All right. Now would you agree with me that that part of the limit that we just read in quotes did not

make it into any kind of a land use control in the three counties we're dealing with here?

A. So yes. It did not, which is very common here within the United States, no matter where you are.

Typically in the U.S. and, as I say, and the other jurisdictions have all adopted a shadow flicker that they seem reasonable to limit the nuisance from shadow flicker. And it is very common across the United States, similar to what Deuel County, Codington County, and Grant County adopted, was just the no more than 30 hours of shadow flicker, actual shadow flicker here at the homes.

So it's very common in the U.S., in Canada, in other jurisdictions where they did not adopt the no more than 30 minutes at a time.

Q. So in your estimation was that done to simplify the regulation?

A. I believe what happened was that at the time when this started becoming more prevalent in the United States in the kind of mid-2000s and into the, you know, 2010 and beyond range is that people were looking for a number that seemed reasonable. And then it was essentially a hybridization of taking this German standard and adopting it across many counties.

And, for example, Connecticut, North Dakota to adopt a no more than 30 hours only shadow flicker and not

worrying about the number of minutes at a time.
Q. Was the NARUC best practices document in your estimation the main impetus to having this German standard imported into the United States?
A. No, not at all. I mean, in fact, to clarify the NARUC document, this was a document that was contracted for Mr. Hessler to do an initial review for NARUC on a best practices guidance. It was sponsored by the State of Minnesota.

When you look at it and you look at the NARUC document it was just a guidance document similar to many other guidance documents. It's really never been adopted by any state. So, for example, the State of Minnesota itself never adopted the best practices of the NARUC document, even though they sponsored it.

Their sound level, for example, is 50 decibels at the exterior of homes, not the 45 or maybe even the 40 recommended in the NARUC document.
Q. Did they not adopt the shadow flicker recommendation either, to your knowledge?
A. To the best of my knowledge as I sit here, the State of Minnesota I believe may have the 30 hours. I would have to look at the actual Minnesota document to understand for the state.
Q. Let's go to page 7 of that same document.

A. I'm there.
Q. Okay. Then we have the first passage in English that begins, "If the values are exceeded," et cetera?
A. Oh, I'm sorry. Page 7?
Q. Yeah.
A. Page 7 for me has a 4.2, and then it's just a German paragraph.
Sorry. Could you maybe tell me which -- sorry. I apologize, counsel. I'm in the German only version. So let me back up into the --
Q. Yeah. I would not be in the German only.
A. Neither would I. Sorry. One second.
Q. Do you read German?
A. I do not. We included the German so that the original document is part of the record as well as then the translation. So I'm now at page 7 that you're looking at.
Q. Well, I have to say the English part here looks like a very poor translation, in my opinion.
But let's go to the last sentence of that paragraph in English on page 7.
A. The paragraph that starts, "If the values are exceeded"?
Q. Right.
A. So the last sentence?

Q. Right. Well, let's actually go --
A. Yes.
Q. I'm sorry. Let's move up to the sentence preceding that where it says, "Since the value of 30 hours per calendar year," I'll just read it, "was developed on the basis of the astronomically possible shading" -- is that a reference to shadow flicker, by the way?
A. It is.
Q. Okay. "A corresponding value for defeat automobiles" -- see my point about what a crumby translation this is? Is the --

Do you know what that means, "defeat automobiles"?

A. That should have been default, I believe.
Q. "Is determined for the actual real shadow duration, the meteorological shading duration."

And then finally we get to this sentence, "Based on [2]," which I assume is a reference to an article that is referenced in this at the -- at the end, "this figure is eight hours per calendar year."

A. Yes. That's what it says.
Q. What does that mean?
A. So the way that the German standard differs from the commonly adopted U.S. standard is the German standard has a 30 hour of astronomical, meaning the worst case, the hypothetical similar to what Mr. Haley's model produces,

and then if you were to correct that for the sunshine probabilities, the operation probabilities of the wind turbine, that they allow for no more than eight hours of actual shadow flicker.

But, again, similar to what we'd have here. But as I put into the Staff response in their request, every jurisdiction has their own shadow flicker limits, some loosely based on the German initial standard.

In the U.S. it's very common, similar to what has been adopted by this Commission in the past, that the 30 hours of shadow flicker is based on taking the astronomical or the worst case and then apportioning it for the probability that the sun is actually going to be shining -- the sun does not shine every day of the year. So that's what we're looking at here.

Q. Well, this is South Dakota, and we are the Sunshine State, I believe.

MS. CHRISTENSON: The sun doesn't shine every day of the year? What?

THE WITNESS: Directly to that, no, it doesn't.

MR. MURPHY: Objection. Don't answer that question. We're getting a little kind of informal.

Q. If I understand what you've just told me, Dr. Ollson, then the German standard at least would limit the actual shadow flicker to eight hours per calendar

year?
A. It does. And, again, unlike the U.S. standard commonly adopted, which is no more than 30 hours, similar to Canada and other jurisdictions. So it is not a direct adoption of the German standard. Just like many other countries and other jurisdictions.
Q. In your work have you ever studied or made an effort to determine whether those who are receptors might have a property interest in not receiving shadow flicker?
A. Certainly in my work my concern is not the property interest, I believe, as you're describing.
Q. All right.
A. It's ensuring the protection of the people who live in that home and reducing their nuisance and annoyance, which I believe we've done.
MR. SWANSON: Thank you.
MS. CREMER: Thank you.
Ms. Christenson.

CROSS-EXAMINATION

BY MS. CHRISTENSON:
Q. Hi, Dr. Ollson. I apologize. When you said the sun doesn't shine every day I'm like what?
A. That's okay.
Q. I thought it did. It is today.
Okay. So you are not a medical doctor; that's

correct?
A. I am not.
Q. Your doctorate of philosophy is environmental-science based?
A. My degree is a Ph.D. or a doctor of environmental science, focused on environmental health sciences, yes.
Q. How does chemical toxicology figure into your degree or your --
A. It's certainly one of the basis of my degree. I mean, my degree is in looking at environmental risk and health from stressors in the environments, everything from arsonic to particulate matter in the air to, in this case, noise and shadow flicker.
Q. I wasn't able to find a copy of your -- I don't know if it's called a doctoral thesis or whatever. Did you actually write a paper, or was that a project?
A. No. It was a very large dissertation on the effects of -- I could look up the actual -- it's the effects of bioavailability of arsonic exposure.
Q. I'm really glad I couldn't find it.
Did Crowned Ridge Wind II retain your services in the area of waste disposal?
A. They did not.
Q. Would that be something that would be I would say in your purview or in your expertise considering your

environmental science?
A. I would have to hear the question. I mean, I certainly do deal with waste facilities. But I'd have to hear the question before I could tell you if I could answer it or not.
Q. Okay. Maybe I'll go on a little more.
Did Crowned Ridge Wind II retain your service for a study pertaining to infrasound or low frequency noise?
A. Certainly throughout the course since 2016 while appearing numerous times in front of the three county commissions and their planning and zoning commissions, submitted a number of reports similar to what's in front of the Commission here today, discussing infrasound and low frequency noise and why it would not be a concern for the Crowned Ridge project or why they would not have to include it specifically in their ordinance.
Q. But nothing for this particular project; right?
A. In terms -- it was an overview of the knowledge of the scientific literature of infrasound and low frequency noise and what would be expected from this project and why we would not be concerned.
Q. Okay. I read in your Supplemental Testimony that you teach a graduate course on environmental risk analysis. In your opinion, what would be the potential risk of disposal of millions of pounds of Fiberglass to

people?
A. So in terms of the actual disposal, I mean, first of all, the Fiberglass blades to my understanding are an inert substance in that nothing leaches out or comes out of that Fiberglass material. It would have to be disposed of in a properly licensed landfill, and that landfill itself would be monitored.
But there's nothing from the blades that would come out of the blades and enter into the environment and impact health. So I would say there would be no undue risk from anybody living around the landfill of blades being disposed of.
Q. So a blade would not be able to be disposed of anywhere but a licensed landfill? Like it couldn't be retained on a leased property of a farmer?
A. That, I'm not aware of. But even if it was on let's say the leased land of the farmer, there's nothing that would be coming from that blade entering into the environment that would impact health. They're Fiberglass blades.
Q. And would that answer be the same including animals, domestic and/or wildlife?
A. Yes.
Q. I'd like to talk to you about flicker. And some of my questions are similar to Mr. Swanson's so I apologize

if I get duplicative. I'm going to try not to.

You were instrumental in the building of the three county ordinances that comprise this project. I consider that a fair statement.

A. I certainly appeared in front of the three counties on numerous occasions, as you well know, and I believe that -- yes.

Q. Okay. And in your recommendations as environmental scientist you did make recommendations for 30 hours of flicker per year; correct?

A. Yes. The recommendation that I sponsored on behalf of Crowned Ridge Wind to all three county commissions was that adopting a no more than 30 hours of shadow flicker, of actual shadow flicker a year, would be reasonable to reduce the nuisance, potential nuisance, or annoyance from wind turbines, yes.

Q. Did you make any recommendation as to limiting the amount of flicker daily?

A. No. And the reason why, and I believe it was in front of this Commission as well as it was in Crowned Ridge I, is that when we do look at the limited number of studies, such as the Health Canada Study that also looked at shadow flicker and a peer-reviewed published paper on that is that there's actually no correlation between either the number of minutes at a time or even 30 hours a

year in science to say that it has no impact on the annoyance.

So, in other words, this 30 hours of no more than 30 hours a year is actually fairly conservative in trying to limit the amount of annoyance. It's less than .1 percent of the number of hours a year that you could potentially have flicker.

Q. Without me pulling up the German study or the German document, because I think you're very familiar with that --

A. I am.

Q. -- they did mention and I'm not sure of the exact wording. I didn't write that down. But they did mention that 60 minutes per day would be a health something. So that's why they went back to the 30.

A. I'd have to go back through the German document. But certainly what we're talking about there, that health was a nuisance, not a true health impact. It's more of a nuisance or annoyance.

And why they decided to limit it, was in their opinion that it was a reasonable amount. But, again, what we see here in the United States, when we limit the number of hours of shadow flicker to no more than 30 a year, that that reduces the annoyance. There are no health effects beyond -- for example, if you had

100 hours of shadow flicker, that is not going to result in a health impact. We don't see that resulting in a health impact.

We're simply trying to limit it to a nuisance effect and something that would be reasonable so we're not unduly burdening the local neighbors.

Q. Since you're not a medical doctor, that would be a little outside your scope. Am I correct?

A. No. In fact, with my Ph.D. and my training and 20 years of experience, what my role is to do is when we do the surveys, the epidemiological surveys, when we're doing it and conducting similar studies to, as Dr. McCunney referenced, Health Canada those are not typically done by the physicians. It's done by somebody, for example, in my profession and the papers published.

Where the physicians come in is I can't diagnose somebody and say this is something that caused me to become sick. What we look at is the trends across the population as to whether the population is actually experiencing or reporting these things.

Q. Can I take a minute to pull up that German study? Can we take just a momentary break?

MS. CREMER: Certainly.

MS. CHRISTENSON: Thank you.

Mr. Swanson to the rescue.

Q. Are you there, Mr. Ollson? Dr. Ollson. I apologize.
A. I have the document. If you could take me to the page.
Q. It's numbered page 9, 4.2. The first couple of paragraphs there, can I just read those out loud, or would you prefer to?
A. I'm happy to read it if you'd like. You're talking about where it says, "In the laboratory study"? Or where are you?
Q. The sentence above it, but then that next paragraph. But if you read it, read it slowly for poor Ms. Cheri.
A. "The emission guide for the daily shading period is 30 minutes. In the laboratory study of the University of Kiel," spelled K-I-E-L, it was found that even a one-minute effect of shadow design of 60 minutes can lead to stress reactions. For pension reasons, therefore, the daily shading time is limited to 30 minutes."
Q. Thank you.
So stress reactions could cause a possible health effect, do you believe, in your opinion?
A. So, again, it requires a lot more context.
So the study that they're referring to there is a study by Dr. Jonas Pohl, P-O-H-L. And I could take you to my Exhibit A12-10, I believe it is, Exhibit

No. A12-10, which is the study I was just describing as being the recent study in the U.S. that's been published. And Dr. Pohl was also part of that study, even though he's German.

And what Dr. Pohl did was take a bunch of graduate students, put them in a lab, and basically I think as Mr. Haley was describing flickered the lights on and off for 30 to 60 minutes and more. The stress reaction that he's referring to there is not the same as we're talking about with the cascading of the stress effects. He did not go down that road.

It was more of a nuisance type of effect where he was saying after 60 minutes of doing that, that the grad students were not -- you know, they were not comfortable. They weren't happy with that occurrence. And it would be extremely rare that you'd get closer to the 60 minutes. So --

But, again, within the study that he -- you know, the reason that I draw the Commission's attention to Exhibit A12-10 is that they go on now in this report -- or in this peer-reviewed paper, and this is the one monitoring annoyance and stress effects, to discussing shadow flicker and why the shadow flicker experienced in the United States does not lead to stress effects.

So 20 years later we have the paper on the actual

stress effects that he was discussing in Germany.
Q. Okay. Thank you. So Germany being the original 30-hour, 30-minute, whatever study, was in 2002, I believe you said?
A. 2002 is the date of the overarching document, yes.
Q. Okay. Do you know what the property rights of an individual were according to their version of a constitution in Germany at that time?
A. No clue.
Q. Thank you. In your Rebuttal Testimony, page 6?
A. Sorry. Bear with me one second. I'll get there.
Q. Okay.
A. Yes. I'm there.
Q. If you could read just the first sentence for us, please.
A. Sure. The line 1 that starts, "Question: Do you see any specific layout changes at this point?" Oh, I'm in --
Q. No. Are we in Rebuttal?
A. I'm not wrong document. I'm sorry. I was in Mr. Hessler's.

Sorry. I'm in the correct document now.

The first line on page 6 of 7 starts, "Answer: No. Again, there will be nothing emitted from the wind turbines. Example: Sound, infrasound, low frequency

noise, vibrations, or shadow flicker, that would cause anyone's home in the project area to be unlivable."

Q. Thank you. So first I'll say these three words to you, Shirley Wind Farm. Are you familiar with the Shirley Wind Farm in Brown County, Wisconsin?

A. I am.

Q. Are you familiar with how many turbines were in that wind project?

A. I would have to go back to the document itself, but -- I'd have to go back to the document itself. It is a smaller wind project than what's proposed here.

Q. Are you familiar with how many homes were abandoned in that project?

A. So back in around the 2011 time frame there was reports that three homeowners had left their homes in the vicinity of the project.

Q. Okay. Thank you.

A. However, there was nothing ever done to show that the project itself caused health effects.

Q. I don't need any more than that.

I'm referring back to some things that you testified on today, and my first question I wrote was does this project potentially pose an annoyance risk to any members of the community?

A. I wouldn't characterize it as a risk. Will there be

some members of the community that may be annoyed from having the project in the community? The answer is clearly yes, like any other energy project or any other wind project with 60,000 turbines across the United States.

Q. Thank you.

And going back to talk about shadows on roadways, when driving through a wind project and turbines being sited 1.1 perhaps from blade tip to the edge of the road, and there could be turbines close to each other on either side of the road and spaced all along one side of the road, when the wind -- or when the wind.

When the sun is casting shadows along the roadway, there are times where the blades intermix. Like they're not timed perfectly. Maybe that's a better explanation. Do you think that could pose a risk on the roadway for disorientation?

A. No. And the reason why, again, is, first of all, there are 60,000 turbines across the United States. There are over 800 here in South Dakota itself. And certainly there are turbines that are located within 1.1 times tip height to roadways.

And, again, you're traveling at a speed -- you're passing through that shadow without even recognizing it, for the most part. You may see the shadow, but it's not

impairing or impacting the drivers.
Q. And then I want to clarify one thing for the record. You talked about possibly the State of Minnesota having a 30-hour limit. Did you mean 30-minute per day limit?
A. No. What I said is I would have to look at the statute for Minnesota. I don't have it in front of me. I know that there is a 30 hour. I don't know if there is anything more to the Minnesota off the top of my head.
MS. CHRISTENSON: Okay. Thank you. That's all I have.
MS. CREMER: Thank you.
Mr. Robish.

CROSS-EXAMINATION

BY MR. ROBISH:
Q. Thank you. Good morning, Dr. Ollson.
A. Good morning, Mr. Robish.
Q. I didn't know if you said this in your earlier part of your statement, but are you a member of the INCE an Institute of Noise Control Engineers?
A. No. Because I'm not a noise control engineer. I have attended some of their meetings, but I am not an acoustical engineer. So no.
Q. Okay. Are there any complaints about flicker and shadow outside the home?
A. In fact, we don't typically see complaints for

shadow flicker even in homes on projects that are built these days. So no.

Q. Okay. Would they report that to you or to someone else?

A. Well, when we're looking at both the body of literature where we're seeing and we do the scientific studies, for example the Health Canada Study that Mr. McCunney just referred to, when they do their shadow flicker study they're asking a series of questions similar to what we have here and you asked with the Lawrence Berkeley Laboratory.

They're asking do you experience shadow inside your home, do you experience shadow flicker inside your home, and then they look at how annoyed people have been to that. And what we're seeing is the annoyance or the nuisance effect is the shadow flicker in the home itself.

Q. Okay. Thank you for that.

Do you think there are any adverse noise impacts or sleep disturbances or health impacts from this project?

A. Not from this project as it's currently designed. And the reason I say that is when you look at the bulk and the weight of the scientific literature if you stay below 45 decibels for nonparticipating homes, we don't see that reported.

There's no sleep disturbance. It's not just Health Canada. There's other sleep studies that have been done. All the cascade of health impacts that can potentially be there we're just not seeing.

So that's why we limit sound levels to a reasonable level is to ensure we're having people get a good night's sleep over the course of a 30-year project. That's why 45 decibels has been shown in the literature over and over again to be a good protective number to ensure that protection.

Q. Is that something you guarantee in writing or just in testimony?

A. Well, it's a question that comes up. Will I guarantee that in writing? I've certainly guaranteed it in writing here in front of this Commission. I've certainly just swore an oath with the court reporter.

So it is my belief that 45 decibels or less at a nonparticipating home is going to be protective of health.

MR. ROBISH: Thank you for your testimony.

THE WITNESS: You're welcome.

MS. CREMER: Staff.

CROSS-EXAMINATION

BY MS. EDWARDS:

Q. Thank you. In your Supplemental Testimony -- you

don't need to dig it out -- on --

I guess I don't know page numbers, but in your Supplemental Testimony you refer to a North Dakota statute. And based upon your experience, not a legal interpretation, but if you know from your experience, in the statement that says that North Dakota has requirements -- or requires effects from the impact upon light sensitive land uses, do you know from your experience what they're referring to with light sensitive land uses?

A. So my understanding, and having done numerous projects in North Dakota, is that it's kind of an overarch statute about light sensitive land uses. And what they have adopted at the PUC level, similar as your PUC past under these types of hearings, is a no more than 30 hours of shadow flicker at nonparticipating homes.

So not being a lawyer but that's the overarching statute and then they use the 30 hours to satisfy that rule.

Q. So you would say in your experience they tie that light sensitive land use to homes?

A. Yes.

Q. Okay. Thank you. And going to that study, and, again, you don't have to pull it out, with the U.S. -- the newer environmental study that was Exhibit A12-10,

that talked about annoyance, the study with the United States and Europe?
A. Yes.
Q. Do you know if as part of that study did they take into account the ambient noise in the areas -- in the resident -- in the areas the respondents lived prior to the wind farm?
A. So, in fact, this is the second part of a two-part paper series. And the first paper is actually all of the annoyance and the noise and all of the modeling that was done.

What you have here is over 1,700 people living around wind farms across the United States where -- very similar to here in South Dakota and may have included South Dakota projects where, you know, you're in rural areas of the United States where the ambient level would be similar as it is here.

Q. Thank you.

MS. EDWARDS: No further questions.

MS. CREMER: Thank you.

Commissioner Nelson.

COMMISSIONER NELSON: No questions.

COMMISSIONER FIEGEN: No questions.

CHAIRMAN HANSON: Good morning, Doctor.

THE WITNESS: Good morning, Commissioner Hanson.

CHAIRMAN HANSON: You would agree, would you not, that some people are annoyed by wind turbines from sight; correct?

THE WITNESS: Yes.

CHAIRMAN HANSON: And by sound.

THE WITNESS: Only a very small portion of the annoyance is actually attributed to the sound itself. So it is actually when you look at what are the factors to that cause -- maybe if I can back up just a second, I'll try not to go too far.

But when we're doing these surveys if you received the survey from the Lawrence Berkeley Lab, you'd get it at your home, and it has a question, Are you annoyed by the wind turbines? Yes or no? Yes.

And then they go through like a five number scale saying how annoyed are you to the sound? How annoyed are you to the blinking lights? How annoyed are you to the shadow flicker? How annoyed are you looking at the turbines? What is your attitude towards the project?

So then you take that the 1,700 people on this one-off question that we've asked them over one period of time, and we see what is actually -- we do an overall annoyance, and then we see what is the biggest contributor to that annoyance.

And what we see time again, whether it's been in Canada, whether it's been in Europe, or here in the United States, when we look at that ranking of what's causing the annoyance it's the ability to see the turbines and how many turbines you're seeing, it's the attitude --

Not to downplay, but it's how do you feel about the project? Are you receiving economic benefit? Are you not? Did you want the project in your community? And then as you go further down the scale, the noise itself is a very small contributor to that overarching annoyance.

CHAIRMAN HANSON: I hear that argument significantly repeated throughout testimonies that attitude is important here. But we shouldn't downplay that, should we?

THE WITNESS: No, not at all. Certainly not. In any energy project that I've worked on -- so I've worked on everything from the pipeline projects that run through the states to the gas-fired plants to coal plants and the like, and I can tell you on any energy project that I'm going to be working on there's going to be a portion of the population -- sometimes in the city and a gas-fired plant there's going to be a large number of people that are not going to want the project and they

will be annoyed by the project. And just like the wind turbines, you will have some portion of -- so it shouldn't be ignored.

But then the question is does that annoyance -- is it so significant that it leads to undue stress? Does it lead to sleep disturbance? Does it lead to health effects?

What we know from wind turbines, if we reduce the noise to 45 or less, we don't see the cascading effects that we are concerned about when we start looking at annoyance. But it certainly doesn't need to be downplayed.

CHAIRMAN HANSON: Thank you for your testimony. I'm going to have to dock you for not using the Oxford comma, though, in your presentation.

MS. CREMER: Crowned Ridge, do you have redirect?

MR. MURPHY: No, I do not.

MS. CREMER: All right. Thank you, Dr. Ollson. You may step down.

(The witness is excused.)

(Discussion off the record.)

MS. CREMER: 1 o'clock we'll all be back here.

(A lunch recess is taken.)

MS. CREMER: I'll call the hearing back to

order. And we were still on Crowned Ridge's direct case.

MR. SCHUMACHER: Thank you. Crowned Ridge would call Sarah Sappington.

(The oath is administered by the court reporter.)

DIRECT EXAMINATION

BY MR. SCHUMACHER:

Q. Please state your name, business title, and company for the record.

A. Sarah Sappington. I work for SWCA Environmental Consultants, and I'm the director of the Bismarck, North Dakota SWCA office.

Q. What is your role with the Crowned Ridge Wind II project?

A. My team is responsible for the environmental, cultural, and wildlife studies for the Crowned Ridge II wind project. I personally participated in or supervised the environmental, natural, cultural, and wildlife studies, surveys, and assessments, including the Application and managing the natural and cultural resources staff.

Q. Please provide a short overview of your education and experience.

A. I have 16 years of experience in environmental permitting and consulting, and I manage all aspects of energy development projects in the Midwest, including

environmental permitting and cultural and natural resources management.

I received my master's and bachelor's in anthropology with an emphasis in archeology from Brigham Young University in 2003 and 2001, respectively.

Q. Did you file Prefiled Direct Testimony and exhibits on July 9, 2019, and updated on October 21, 2019, to include page numbers marked as A3 and Prefiled Supplemental Testimony and exhibits on September 20, 2019, that is marked as A18, A18-1, and A18-2 and Prefiled Rebuttal Testimony on January 8, 2020, that is marked as A24?

A. Yes.

Q. Do you have any changes or corrections to your prefiled testimony?

A. No.

Q. Please provide a short overview of your testimony.

A. Thank you.

Crowned Ridge Wind has conducted desktop analyses and site-specific field studies to determine the potential for sensitive cultural and natural resources for the project. Surveys were designed to adhere to the regulations and guidelines, such as the United States Fish & Wildlife, Land-Based Wind Energy Guidelines, and the United States Fish & Wildlife Eagle Conservation Plan

Guidance, as well as state cultural resources laws, and other water resources laws such as the Clean Water Act.

Crowned Ridge consulted with numerous state agencies, including the United States Fish & Wildlife Service, the South Dakota Game, Fish & Parks, the State Historic Preservation Office, and also local and counties as needed.

Crowned Ridge has continued to work with state agencies on guidelines and recommendations for avoidance, minimization, and mitigation for any impacts to the project as detailed in the Application.

Desktop and field studies have been completed for the project, and they include the following: Avian point count studies and avian use studies, raptor nest and eagle surveys, Dakota skipper and Poweshiek skipperling habitat assessments, habitat surveys, adult occupant surveys, grouse lek surveys, whooping crane habitat assessment, bat habitat assessment, bat acoustic monitoring, wetland and stream surveys, cultural resource surveys in the form of a Level 1 Records Search and a Level 3 Intensive Survey for cultural resources, as well as coordination with local tribes for traditional cultural property studies.

Some of the avoidance and minimization and mitigation measures include not siting infrastructure on

United States Fish & Wildlife easements for grasslands or combination grassland/wetland easements, not siting within protected basins within the United States Fish & Wildlife wetland easements, avoiding cultural resources and tribal resources, avoiding impacts and minimizing any impacts to wetlands to the extent practicable and under the Nationwide Permit 12 Standards, siting all turbines one and a half miles from known occupied eagle nests and also ensuring that there are best management practices put into place to avoid any other impacts to species or resources.

MR. SCHUMACHER: Thank you. That concludes our direct examination.

MS. CREMER: Thank you.

Mr. Swanson.

MR. SWANSON: No questions.

MS. CREMER: Ms. Christenson.

CROSS-EXAMINATION

BY MS. CHRISTENSON:

Q. Good afternoon.

A. Good afternoon.

Q. I'm going to be referring to the map behind you, which is A27-2.

A. Okay.

Q. It's just a nice size of reference there. Looking

at the project's turbine placement, there is an array of turbines along the lake area on the north and east of the project. And many of those turbines are in green.

Do you see that?

A. Are you talking about the ones over here (indicating)?

Q. Higher. All of -- yeah. That whole array right there.

A. Okay. Those are blue.

Q. Oh, they are?

A. Yeah. Just making sure. I can see it a little bit closer than you can.

Q. Thank you.

That whole -- there is a road that runs along those lakes, and that whole area is pretty much a wildlife wonderland. There's all kinds of game production and walk-in areas, and there's just abounding wildlife there.

So during your studies and during your review of this project did your company suggest to Crowned Ridge Wind II to possibly not put turbines in that area because of that wildlife population?

A. So in looking at this area, there are several lakes there. There is also a known eagle nest that is out towards that area as well that has been avoided by one and a half miles. So that was a consideration for the

project area.

Thinking about the studies that were done for the project, really this is an iterative review that takes place for the project. So we start off with the desktop studies, and in those desktop studies we look at areas that can be seen that may be wildlife areas that include those United States Fish & Wildlife wetland easements or grassland easements or the combination grassland/wetland easements as I discussed in my opening.

So we take into account all those different areas. And the studies are really designed to look at the Land-Based Wind Energy Guidelines for the project area, as well as any of the guidelines given by the United States Fish & Wildlife Service and the South Dakota Game, Fish & Parks, and they're designed to look at these sensitive species. So look at, you know, eagles and whooping cranes, wetland areas, any impacts that might happen in those areas.

There have been numerous studies for the turbines and the siting of the infrastructure of the project, and that's detailed in the Application. And so the way that these turbines have been sited, areas have been cleared, and we have seen that the impacts are minimal for those areas.

Q. Okay. Thank you for that explanation. But

basically your answer is no to that array? You didn't ever suggest to them not to build those turbines?
A. No.
Q. Okay. Thank you. Did you do a migration study for that area?
A. And by migration can you tell me what exactly?
Q. Well, we have -- that area is a migration corridor for geese, eagles. There's a high population of pelicans who remain. There's ducks. There's just a lot of birds in that area.
Is there a study that you performed for that?
MR. SCHUMACHER: I'm going to object to the testimony part of that question.
MS. CREMER: And what would be the objection?
MR. SCHUMACHER: That she's providing facts not in evidence.
MS. CREMER: Okay. That's what I assumed, but I didn't want to make that --
So you understand his objection? You are -- you got it?
MS. CHRISTENSON: I do.
MS. CREMER: So I'm going to sustain that.
MS. CHRISTENSON: I can rephrase?
MS. CREMER: Yes.
Q. Have you done any studies of bird migration in the

project area?
A. Okay. There are a couple different studies that we've completed for the project. So we've completed avian use studies, and this includes point count areas that are done across the entire project area.

Essentially, biologists go out and they look at an 800 meter area and they look specifically for, you know, six months to a year time at all the birds that are flying in that 800 meter area.

So, specifically, if there are migration events that are occurring during those times, then, yes, they would be looked at. So different birds are seen. There might be eagles that could be seen. If per chance there was a whooping crane or, you know, other species, you know, we would see them during that time.

And those avian use studies were completed in 2017. But there were also numerous avian point count studies completed over the years for almost the last 10 years on this project.
Q. Okay.
A. So that is just one of the studies. We've also completed raptor nest surveys. Those were completed in 2017 and 2018.
Q. Can I stop you there?
A. Sure.

Q. Can you give me the dates of the point studies? I'm curious as to whether there was any studies during migration. I'd kind of like to keep it to that scope right now, please.

A. Okay. So in looking at my Direct Testimony, and this is also in the Application, the Avian Use Survey was completed in spring, in April through November 2017. So that would include spring and fall migration time periods.

Q. Thank you.

What is the closest distance a turbine in this project is sited to a public road? I heard that you're the authority on that.

A. And I looked it up just for you.

Q. Thank you.

A. The distance from turbines to public roads, the closest one is Crowned Ridge II, 64. And it is 590 feet from 171st Street. That does fall within the setback distances as required and mentioned in the Application.

Q. Can you tell me that street again, please.

A. Yes. 171st Street.

Q. And is that to the center of the road?

A. I'm not sure if it's to the center or to the edge, but you may be looking at 5 to 10 feet. So either way, 590. If you say it's greater than 10 feet, 580. The

setback distance at the maximum would be 533.
Q. Okay. Thank you.
A. You're welcome.
MS. CHRISTENSON: Commissioner Fiegen, I'm going to jump in on your question about the interstate.
Q. She asked Mr. Wilhelm how close turbines would be sited near the interstate, and we were told that you would have that answer.
Do you have that?
A. Yes, I do.
Q. Can I have that one too?
A. Of course. The nearest turbine to I-29 is CR2-13, and it is located 1.27 miles to the northeast of the highway.
Q. Thank you.
Would there be a difference in siting for the safety of the public or travelers on the interstate versus other public roads?
A. As far as what are you referring to? What safety are you referring to?
Q. Anything to do with the turbine, whether it be shadows on the roadway versus ice sling versus any -- I don't know what all the effects could possibly be, but would there be a difference in siting on the interstate versus a paved county road?

A. So that's outside of my scope. I just do the environmental and wildlife studies so I wouldn't know about siting next to the highway.
Q. Okay. Did your company conduct any studies concerning shadows on the roadway?
A. No.
Q. Did your company conduct any study concerning shadow effects on wildlife or domestic animals?
A. No.
Q. Did your company conduct any study concerning noise, audible and inaudible, including low frequency noise or infrasound on domestic animals?
A. No.
Q. In your Rebuttal Testimony, Exhibit A24, the page isn't numbered, but it's the second to the last page.
A. Okay.
Q. I'm going to read that line. "Additionally, to avoid the spread of noxious weeds, Crowned Ridge Wind II will use native vegetation weed-free seed mixes to re-vegetate disturbed areas, where feasible."
Could you describe to me why or when re-vegetating would not be feasible?
A. Well, re-vegetating would not be feasible during the wintertime. Is that what you mean?
Q. No. Because then you would re-vegetate during the

spring. Like during the wintertime -- you just say that re-vegetation may not be feasible. Of course, that was subject to landowner preferences. I just don't understand when it would not be feasible to re-vegetate.

Were you only referring to winter and then it would never be re-vegetated if that was winter?

A. So in looking at this sentence, I believe it says seed mixes to re-vegetate disturbed areas where feasible and pending landowner preferences.

So I would say that based on the landowner preferences it may not be feasible.

Q. That would be the only time it would not be feasible, in your opinion? Or that's what you're trying to say there?

A. To my knowledge, yes.

Q. Okay. Is there any information that you are aware of, current or historical, regarding river otters in adjacent or near the Crowned Ridge Wind II project area?

A. So river otters are discussed in the Application, and they are discussed in Section I believe 11.3, if you'll allow me to get there.

Q. Uh-huh.

A. Section 11.3.1.3.1 discusses the Northern River Otter. And on page 58 of the Application it notes that the closest documented observation of the Northern River

Otter was along an unnamed tributary to Hidewood Creek approximately 3.1 miles southeast of the project area. And that information came from the South Dakota Natural Heritage Database, and that database is managed by the South Dakota Game, Fish & Parks.

Q. Thank you.

Did you make any visits personally to the project site for any study?

A. I did not complete any studies, but I have been through the project area.

Q. Okay. And then I believe it's your testimony, but I didn't find it before we came back from lunch. Were you the one that said you don't expect any issue with water because the water is typically 100 feet below the surface?

A. So the Application details to great extent water and specifically groundwater issues. And all those hydrologic resources are described in the Application.

Generally aquifers and other areas are 100 feet.

MS. CHRISTENSON: Okay. That's all the questions I have. Thank you.

THE WITNESS: Thank you.

MS. CREMER: Mr. Robish.

MR. ROBISH: I have no questions.

MS. CREMER: Thank you.

Staff.

MS. REISS: Thank you. Just a few for you.

CROSS-EXAMINATION

BY MS. REISS:

Q. In your Rebuttal Testimony you provide testimony that you do not agree with a proposed condition by Staff. And that would be on page -- it's regarding whooping crane conditions.

A. Yes.

Q. Does that ring a bell?

A. Yes.

Q. Does that -- can you just clarify? Do you not agree with the proposed condition, or do you not agree that there is a need for a condition to address whooping cranes?

A. Crowned Ridge doesn't believe that there is a need for the conditions because of the commitments already as stated in the testimony and in the Application. Specifically, that there has been a desktop habitat assessment already conducted and also that there will be training involved for operations personnel to the effect that they would develop a process and a flowchart showing how to train personnel to identify whooping cranes if they are found during the operation and detected within two miles of the operating turbine by those operating

staff.

So because of those commitments already stated in the Application, Crowned Ridge does not believe that condition is necessary.

Q. And that is still your position today?

A. Yes.

Q. Okay. And then I believe in response to some of Ms. Christenson's questions you discussed Exhibit A1-B; is that correct?

A. Which one is A1-B?

Q. Oh, it would be -- I can just point you to it, if it's easier. If you want to point out A1-B, Application Exhibit A1-B. And if you go to page 5 of 135 when you get to that, that would be helpful.

A. What was the page number again?

Q. 5 of 135.

And are you looking at?

A. A1-B?

Q. A1-B.

A. The agency coordination?

Q. Yes. So you found page 5?

A. A letter from the Fish & Wildlife Service?

Q. Yes.

A. Okay.

Q. And did you review that document in preparation for

your testimony and to prepare for today?
A. I looked at lots of things, but if I could have a minute to just refresh my memory.
Q. Sure.
(Witness examines document.)
A. And this is specifically the Fish & Wildlife Service letter dated November 26, 2007?
Q. Yes.
A. Okay.
Q. And in that document did the U.S. Fish & Wildlife Service identify that whooping cranes may occur in the project area?
A. Yes. So on page 1 it says, "In accordance with Section 7(c) of the Endangered Species Act, as amended, we have determined the following federally listed species may occur in the project area." And in that species list is a whooping crane.
Q. Okay. And then could you turn to page 53 in that same exhibit, please.
A. You might have to help me out. These are not --
Q. It's another letter.
A. Okay. Can you give me the date?
Q. February 5, 2010.
March 23. I apologize.
A. March 23, 2014?

Q. Yes.
A. From the United States Fish & Wildlife?
Q. Yes.
A. Okay. I'm there.
Q. And, once again, in that document did the U.S. Fish & Wildlife Service identify that whooping cranes may occur in the project area?
A. Yes. It is listed in the list of proposed species that may occur in the project area.
Q. When this information was provided to Crowned Ridge II what work was done to investigate the potential impacts to whooping cranes in the project area?
A. Sure. So one of the studies that Crowned Ridge undertook was a Whooping Crane Habitat Assessment Study, and that is as part of the Application.

The Whooping Crane Habitat Assessment Study really looked at available suitable habitat for whooping cranes. And whooping cranes need a very specific wetland habitat. So in this case for whooping cranes not all wetlands are created equal. They need very specific habitat in which to use for their stopover as they fly from Canada down to the south.

And in looking at doing that study, Crowned Ridge found that 0.2 percent of the wetlands in the project area would provide suitable habitat for whooping cranes.

As I'm sure you'll agree, that's a very minute case of potential suitable habitat where a whooping crane could stop over.

I would also note that the whooping crane migratory corridor is 50 miles outside of the project area. And, as such, the majority of species that we will see will be in that migratory corridor. 95 percent of the known occurrences of whooping cranes will be in that migratory corridor.

You may see a few stray and, of course, we have. The last closest whooping crane to the project was from 1973, approximately 22, 23 miles from the project area.

Q. Thank you.

You mentioned the migratory corridor. Are you aware of whether the whooping crane migration corridor has changed over time?

A. So the whooping crane migratory corridor is not a static thing.

As we know, birds shift; right? And they go down potentially a migratory corridor, but things can impact that corridor. We don't expect that that corridor would remain static over time. It can shift, according to different variables.

One of those variables is where is that stopover habitat? What does the climate look like? What is

happening is we see agriculture and different things happening. What happens if there's a drought?

So really we can see that that can change. And the literature, including Pierce, et al., who is one of the known experts for whooping cranes, has described that migratory could shift.

One of the things that Crowned Ridge does in coordination, as you've seen in the agency correspondence, is there's been continual coordination with the agencies, including the United States Fish & Wildlife Service and the South Dakota Game, Fish & Parks, and the most recent ask for the United States Fish & Wildlife Service was done in December 2019 to see if there were additionally any other whooping cranes that were closer to the corridor, and at this time the closest one is still the one that is 22 to 23 miles away from the project area.

Q. Thank you.

And just going back to your Rebuttal Testimony, and it's on testimony you provided today, you mentioned that Crowned Ridge is taking steps regarding whooping cranes. Can you describe the process Crowned Ridge Wind II plans to implement regarding whooping cranes?

A. So there's a couple different things. One, the Wildlife Conservation Strategy will be filed 30 days

prior to construction. And that Wildlife Conservation Strategy will really describe, one, all the commitments already made in the Application. And it will also condense all those studies, including all the avian studies, the raptor nest survey studies, the whooping crane studies.

It will condense all of that and describe all the commitments that are made moving forward, including the training of staff to identify whooping cranes annually. And it will also monitor potentially for any detections during regular operations duties. And the submittal of this approach will be done in coordination with the South Dakota Game, Fish & Parks staff and as part of that filing with the Commission.

Q. Thank you.

And is any part of this plan dependent or contingent on an expansion of the migratory corridor for whooping cranes?

A. Sorry. Can you rephrase your question?

Q. Uh-huh.

Okay. We can move on. I'm sorry.

In your review of this docket did you review the proposed whooping crane condition proposed by Staff Witness Darren Kearney in his Direct Testimony?

A. Yes.

Q. And isn't it Crowned Ridge II's plan for addressing whooping cranes similar to the condition this witness proposes?
A. I believe it's similar in nature. Again, as stated, Crowned Ridge feels that it has already made this commitment clear, that they will be going forward with training operations staff. And so that was really the only reason we said that condition was not necessary; because that commitment has already been made in the Application and the testimony.
Q. So, in your opinion, the condition that was proposed doesn't include anything beyond the scope of what Crowned Ridge II has already committed to?
A. It would be Crowned Ridge's commitment to say if they believe there was any difference. But, again, they feel they have already committed to this condition.
MS. REISS: No further questions.
Thank you.
MS. CREMER: Thank you.
That would take us to Commission questions. And Commissioner Fiegen.
COMMISSIONER FIEGEN: I wasn't going to have any questions, but I was certainly looking up whooping crane everywhere and doing all sorts of searches while you were testifying.

And, you know, that was certainly my question, and I'm sure Commissioner Hanson will ask the same question. You know, staff tries to be transparent and at the Public Utilities Commission transparency is really, really important to us.

I cannot understand why if you're committing to it in the Application and the Staff has put it as a condition and they're very similar, why -- help me understand why transparency would not be important to you like it is to the Public Utilities Commission.

And that's the whooping crane condition.

A. So, again, I'm a consultant for Crowned Ridge so I can't make specific commitments. But, again, I will state that Crowned Ridge feels that it has made this commitment already in the Application.

Whether they commit to do that or not, if that is done by Staff, then, of course, I believe Crowned Ridge would work with Staff on that.

COMMISSIONER FIEGEN: No further.

MS. CREMER: Chairman Hanson.

CHAIRMAN HANSON: Good afternoon.

THE WITNESS: Good afternoon.

CHAIRMAN HANSON: Welcome back to South Dakota.

THE WITNESS: Thank you.

CHAIRMAN HANSON: I do have a couple questions

on whooping cranes.

COMMISSIONER FIEGEN: I knew you would.

CHAIRMAN HANSON: You're not saying that you've adopted Mr. Kearney's suggestions completely, are you?

THE WITNESS: No. Again, just restating what I've said, that we believe we've already made that commitment.

CHAIRMAN HANSON: Well, they've made a commitment.

Do you know the project duration, anticipated duration of this project?

THE WITNESS: As far as duration of --

CHAIRMAN HANSON: How long this project is going to be in South Dakota? What's the life of it?

THE WITNESS: I would have to refer back to the Application.

CHAIRMAN HANSON: Would it surprise you or would it seem logical that it's around 20, 25 years?

THE WITNESS: I believe that's what is stated in the Application.

CHAIRMAN HANSON: And it could be extended beyond that period of time?

THE WITNESS: Again, that would be up to Crowned Ridge.

CHAIRMAN HANSON: It wouldn't surprise you,

though, would it?

THE WITNESS: It depends on the project.

CHAIRMAN HANSON: Okay. During that period of time would you agree that there's a potential for change in the migratory path?

THE WITNESS: Of course. Literature supports that, you know, that migratory corridor is, again, not static. It can change, according to variations in different items.

CHAIRMAN HANSON: In your testimony you state singular in your positions. You say the migratory path. However, there are actually two migratory paths that -- actually you could say there's three if you include the one that's potentially developing on the East Coast. You could say that there were almost four because of the attempts in Colorado to -- as I recall, to extend a migratory path there; correct?

THE WITNESS: I wouldn't know exactly on that one.

CHAIRMAN HANSON: Aren't you presenting yourself as somewhat of an authority on whooping cranes and their migration?

THE WITNESS: I am not an expert in whooping cranes. My background is in archeology. However, I am authorized to speak on the Application.

CHAIRMAN HANSON: Then would it surprise you that besides the -- I believe it's the Arkansas in Texas, migratory -- National Wildlife Refuge that they migrate up into, well, northern Canada. And there's another one that has been developed where they use the small aircraft to guide them?

I didn't think I was going to have to go through an explanation on this item.

THE WITNESS: I'm sorry.

CHAIRMAN HANSON: Or I would have read up on it. To a place in Wisconsin. Are you familiar with that, from Florida to Wisconsin?

THE WITNESS: No, I'm not.

CHAIRMAN HANSON: Okay. Interesting.

So are you aware of how many whooping cranes there are in the only historically single migratory path that you were referring to?

THE WITNESS: To the 95 percent corridor? Is that what your --

CHAIRMAN HANSON: Well, how many whooping cranes there are in that flock. I know it's not one single flock that flies up but --

THE WITNESS: I'm not aware of the exact number, but I think it was between 3 to 600.

CHAIRMAN HANSON: Are you aware of any other

of this species in the entire world except for North America?

THE WITNESS: I would have no knowledge of that.

CHAIRMAN HANSON: Goodness. And yet you're making recommendations on the -- on how they should be -- how we should look out for them?

THE WITNESS: So I supervise a staff that includes biologists that have studied whooping cranes. And in the preparation of the Application and specifically in working with Crowned Ridge, our experts feel that the conditions that are stated forth in the Application and testimony are correct and that commitments to protect whooping cranes have been stated as such.

CHAIRMAN HANSON: Well, you're not instilling me with confidence. As few of these -- I mean, once they're gone, they're gone. I wish you could answer my questions for me.

So you don't know how many there are or what their migratory paths are or if they exist anywhere outside of the United States, which they don't.

Do you know how wet it's been in South Dakota over the past few years?

THE WITNESS: Yes, I do. I've lived in Bismarck for over four years, and it's been wet up there too.

CHAIRMAN HANSON: Do you know that this changes the habitat for avian species in addition to the whooping crane?

THE WITNESS: Of course. I mean, any time you have extreme periods of climate -- and this is true for any species. You know, whether it's drought or flooding or, you know, any other kind of natural disasters, of course, that's going to change the ecosystems for species.

CHAIRMAN HANSON: So could this potentially change the migratory path?

THE WITNESS: As far as the flooding and the wetness?

CHAIRMAN HANSON: Yes.

THE WITNESS: Potentially, of course. One of the things to keep in mind, though, is knowing that whooping cranes really need specific habitat so additional wetness may not create more wetlands that are suitable for that stopover habitat.

So it doesn't necessarily indicate that just because the area is wet that those whooping cranes would come over here because it's wetter. Again, they would have to have those specific requirements for the habitat as described in the habitat assessment in order to find suitable stopover.

CHAIRMAN HANSON: And yet I'm sure you would agree that the -- the more rain -- if this is the new normal, that the more rain that other parts of the state receive, that there is a likelihood of a creation of more habitat for the whooping crane.

THE WITNESS: Potentially. Again, wetlands are, again, not all created equal, and there are certain requirements for wetlands, specifically looking at vegetation type, soil type, those types of things in order to look at a wetland.

And, again, not all of those wetlands would be suitable for the habitat for whooping cranes. So, again, you might find some that, yeah, maybe there's new suitable habitat that's created. There might be suitable habitat that's also destroyed by flooding. So I think you could see both.

I think one of the things to, you know, keep in mind, you know, and hopefully -- I might not know all the answers for whooping cranes, but what I do know is Crowned Ridge is continually coordinating with the agencies. So in coordination with the United States Fish & Wildlife Service and other experts that know whooping cranes, one of the things that they will do is, you know, if we are seeing that South Dakota's impacted and suddenly there's new habitat areas and whooping

cranes are moving further to the east, Crowned Ridge will know.

And as stated in the Wildlife Conservation Strategy, that's one of the areas that could be looked at as far as making sure that we're protecting these species. Because they are. They're endangered, and there are few of them. I know that much.

CHAIRMAN HANSON: I hear what you're saying. I just don't receive the confidence from what is written and the positions that Crowned Ridge is taking on this issue. And the seemingly incredible resistance to even the most minor of suggested changes to it.

Do you believe in climate change by any chance?

THE WITNESS: Of course.

CHAIRMAN HANSON: So if you believe in climate change, then you should certainly believe in the fact that additional migratory stopovers will exist in the future. And if we have a 25-year project here that may extend for I don't know how many years beyond as they find additional generating facilities that would compete in the energy industry, you know, you can't just plan for this minute, for this day when we're looking at something of this nature.

We've got to look beyond. We've got to look beyond the three Commissioners here. We've got to look

beyond this year or the past two years.

So I would think that you would agree that dismissing the suggestions from Mr. Kearney are inconsistent with just intuition of what should be done to protect a very, very rare species.

Would you agree?

THE WITNESS: As far as protection and keeping the -- going with the condition that has been proposed? Is that the question?

CHAIRMAN HANSON: I don't wish to repeat the question, I guess.

COMMISSIONER FIEGEN: We're going to put you on the witness stand.

THE WITNESS: Again, you know, what I can say is that, you know, Crowned Ridge would have to make that commitment. So, you know, Tyler, who I work for, would need to make that commitment to staff.

CHAIRMAN HANSON: Tell me about this operations staff then that all this great confidence is going to be placed in for identifying whooping cranes.

Are you going to be educating them on all of the different species of cranes that there are and -- gee, if they're spotted -- I read through -- I'm sorry to trample over my own question, but I just am a little bit beside myself as I look at --

It's if the migratory corridor expands. That's not very definitive. "If whooping cranes are detected within two miles by trained operations staff." You know, there's just a lot of ifs in here. And they will informally monitor for any detections.

It's not like these are starlings or blackbirds or whatever that are -- where there's millions of them. The loss of one is pretty important. So where do I get the confidence that I should not vote against the entire project unless they are serious about taking care of a very, very rare species?

THE WITNESS: I believe that Crowned Ridge is serious about this species. And again as stated, you know, they are going to train staff. So they are going to go through biological resources, and I'm sure that they would, you know, talk to those things.

But, again, you know, I can't make that commitment for Crowned Ridge. If you'd like me to go and ask Crowned Ridge, I'd be happy to do that. Again, I'm just a consultant here so --

CHAIRMAN HANSON: Understood. Understood. But you're their expert witness on it, and I'm not getting there.

Thank you.

THE WITNESS: I apologize.

MS. CREMER: Redirect?
MR. SCHUMACHER: No redirect.
MS. CREMER: Thank you, Ms. Sappington. You are excused.
THE WITNESS: Thank you.
(The witness is excused.)
(Discussion off the record.)
MS. CREMER: Crowned Ridge.
MR. MURPHY: Thank you. Before we rest the case, I would like to -- and, Chair Hanson, on behalf of Crowned Ridge, we will commit to the commitment in staff Kearney's testimony on whooping cranes. I want to make that commitment on behalf of the company.
MS. CREMER: You were just asking the wrong person.
MR. MURPHY: The will of the Commission was, you know, clearly expressed, and I appreciate your expression so that we can be clear.
CHAIRMAN HANSON: I've got a couple other requests but --
MR. MURPHY: I can't guarantee, you know --
CHAIRMAN HANSON: Well, thank you very much, Mr. Murphy. I appreciate that, and I'm sure the whooping cranes do too.
MR. MURPHY: With that, we rest our direct case.

MS. CREMER: Maybe.

MR. MURPHY: Okay.

MS. CREMER: Will you be calling Mr. Wilhelm in rebuttal?

And the reason I ask is there's a question, and I don't care when it comes in but --

MR. MURPHY: I would prefer to call him now if there's a question from the Commission because -- in Crowned Ridge I, for example, we didn't put on a rebuttal case. And we may not here.

MS. CREMER: Okay. So, Mr. Wilhelm.

You are still under oath for the duration of the hearing. Thank you.

COMMISSIONER NELSON: Mr. Wilhelm, thanks for coming back. In the discussions we had with Mr. MaRous yesterday, and you heard those discussions, we got off onto this issue of aerial application, and Mr. MaRous was telling us that wind farms would, in coordination with aerial applicators, shut down in order for the application to occur.

Now my -- I guess I would say two things. I was surprised that he would be in a position to make that kind of commitment, especially since this project is going to be sold to Xcel. And so can you tell me, is there some understanding that Xcel would operate in that

fashion and make that commitment to farmers and aerial applicators?

THE WITNESS: The question hasn't been raised from any of the local aerial application sprayers. There's been no raised concerns as to whether that may impact their current operations. When there is those questions asked, you know, we would approach Xcel -- or sorry -- Northern States Power and see if they would be willing to do such.

We haven't talked about it. I would assume with the amount of wind farms that they do operate, that they have handled such situations of the like and coordinated with those local spraying companies. And I wouldn't assume that they would do any different from this project.

COMMISSIONER NELSON: Okay. So then let's make it real. For Crowned Ridge I when NextEra is operating that project, is that your policy that you would be willing to shut down turbines in order to coordinate with aerial applicators?

THE WITNESS: Absolutely. We would coordinate as necessary to make sure that those current operations aren't impacted and put together a schedule with our O&M team and work openhandedly.

COMMISSIONER NELSON: Excellent.

MS. CREMER: Is there any redirect to that?
MR. MURPHY: No.
MS. CREMER: All right. Then you are excused. Thank you very much.
THE WITNESS: Thank you.
(The witness is excused.)
MS. CREMER: And you have rested. Is that my understanding?
MR. MURPHY: Correct.
(Discussion off the record.)
MS. CREMER: Let's take just five minutes to get everybody set up, and we will begin with Mr. Swanson.
(A short recess is taken.)
MS. CREMER: I will call the hearing back to order. And at this time I think we will address the Motion to Strike that was filed by the Applicant.
MR. SCHUMACHER: Thank you.
As stated in our motion, there are two grounds upon which we have sought to strike the language specified in the motion.
The first is that the prefiled testimony on behalf of certain of the Intervenors contains what appears to us to clearly be legal argument. Under our Rules of Evidence a lay witness cannot offer what constitutes expert testimony. Legal opinion is not lay

fact testimony, which is what should be contained in affidavits and other forms of testimony.

The other ground is that when you see the words "having been so advised by my attorney" or "my attorney told me" that's a pretty good clue that what is going to follow is hearsay. And, again, under the Rules of Evidence that is not admissible testimony.

And on those grounds we feel the portions again identified in our motion should be stricken from the affidavits or prefiled testimony of these individuals.

MS. CREMER: Thank you.

Mr. Swanson, do you have a response?

MR. SWANSON: Well, the fact that the affidavits, which I prepared with the assistance of the witness, due to some minor extent quote me as their counsel and is now being objected to as hearsay is an interesting thought.

It's not being offered for the truth of the matter. It is being offered as an explanation of why the witness is doing what he's doing and why he is testifying as to these particular facts because he has formed an opinion that the counsel provided by his attorney is reliable.

Now be that as it may, you might say or claim to the contrary, never trust an old Swedish lawyer, and I'll

accept that. But this exhibit, these affidavits, are here to communicate, communicate thoughts, not about wind farms in general or anything on a broad, global sense.

It's here to communicate thoughts about a subject matter which each of these persons is perfectly entitled to express an opinion about. And that is the state, the condition, the threats, and the value of their respective parcels of real property.

They are owners. They are of adult age. They are able to observe the threats that come to the value, perceived value of their property, and that's what they are relating to.

Now, that said, if the Commission wishes to strike this, you're simply going to see this same language over and over again in my upcoming briefs. So why this would be so offensive, I'm not sure.

I have agreed to say that these witnesses -- in further discussions with my brother Schumacher, that these witnesses are not offering these statements as legal opinions. Clearly they are quoting me and my beliefs about legal theory and legal matters to some minor extent. But these things all relate to their use, ownership, and possession of their real property.

They relate also to their legal rights as American citizens and citizens of this state. This is

really in no sense larger than what would be the case if one of these witnesses were to say I enjoy First Amendment rights as an American citizen or a right to keep and bear arms under the Second Amendment and have that show up as, well, that's testimony of a legal nature, and if your lawyer told you that, you're not permitted to say that.

All of us as citizens are entitled to repeat what we believe to be the case about our personal rights and in this case matters that pertain to the value of our property.

I know that the PUC counsel has -- or Staff counsel has taken a slightly less sweeping view of the things that are to be struck. In the Ehlebracht Affidavit, it's the second -- as I understand it, and they can correct me if I incorrectly copied this.

One of the sentences that both Crowned Ridge and Staff counsel wishes to strike is this. And this is at lines 24 and 25 of page 4 of the Ehlebracht exhibit: "Neither agency," and that's referring to both this Commission and the Deuel County Board of Adjustment, "has any real authority to approve or permit this adverse use," and we're speaking now of the effects, "as to the property of a nonparticipant."

Now that is slightly overbroad. I will agree.

We're speaking of them as nonparticipants. So I'm saying this is a challenge by Ehlebracht as to his property as a nonparticipant in this project.

He didn't ask to be included in the boundaries of Crowned Ridge Wind farm. He understands that Crowned Ridge Wind farm will be constructed. He continues to disagree, but they have a right to cast effects on it. That's about all I think I want to say.

And I think the motion extends also to Greber. Am I correct?

MR. SCHUMACHER: Yes.

MR. SWANSON: And I don't know that I have anything special to say about Greber. It's much the same as with Ehlebracht.

Before I close my comments, Miles tells me that we've resolved the Greber Affidavit and the Kranz Affidavit at the outset of the discussion of this case on Tuesday, that they were going to waive cross on those two exhibits. And I think that's I-4 for Ms. Kranz and I-5 for Mr. Greber, subject only to the Motion to Strike on Greber.

I will just note again Kranz is medically unable to be here. And Greber is on a ship somewhere in the Philippine sea.

MS. CREMER: All right. Thank you.

And, Ms. Christenson and Mr. Robish, you didn't file anything in response.

So Staff.

MS. EDWARDS: Thank you. Kristen Edwards for Staff.

We did file a partial joinder of this Motion to Strike. I agree with the Applicant that 1-26 mandates that we follow the Rules of Civil Procedure, that is with one caveat, and that's that in 1-26-19 the Commission is allowed to rely on evidence not otherwise admissible thereunder or under the Rules of Civil Procedure may be admitted except where precluded by statute if it's commonly relied upon and so on and so forth. So that gives us a bit of latitude.

And I did rely on that because while we never play fast and loose with the Rules of Civil Procedure, we do play fair. And some of it was fair game, and I do agree with Mr. Swanson to that extent. We took a slightly narrower view of that.

But some of it simply is hearsay. And like Mr. Schumacher said, if you're saying my attorney told me, if it's his intent to testify, if it's the attorney's intent to testify, we have a whole nother set of problems so I don't wish to go there. But to that extent we rely on our filed joinder and only to those portions listed

therein.

Thank you.

MS. CREMER: And that would come back to you, Mr. Schumacher. Do you have any response to anything?

MR. SCHUMACHER: Thank you. Just very briefly.

First on our agreement or stipulation, we did agree that we will waive cross-examination on the witnesses that are not available today except to the extent of the subject matter of our motion.

I will agree with part of what Mr. Swanson argued in his response, and that is that -- his comment that he's going to put it in the brief, and that's really where the legal arguments belong is in the brief and not in the Affidavit.

MS. CREMER: And I believe there were Commission questions. So yes.

COMMISSIONER NELSON: Thank you. And this is going to be directed at Staff.

I did much the same exercise you did and, frankly, came up with very nearly the same answers that you did, with a few exceptions. And so I want to ask you about those.

In looking at the Greber on page 4, you and I were in agreement that lines 6 and 7 should not be permitted. But it looks to me like the rest of that

sentence is hearsay. It's what the counsel told them.

And so why would you not remove that hearsay portion, meaning lines 8 through the first part of line 11?

MS. EDWARDS: Looking at that now, you are correct. I would remove that as well.

COMMISSIONER NELSON: Thank you.

Going to page 5 of the Greber Affidavit, that first full sentence which would start at the end of line 1 and end on line 3, it seems to me that that is a legal conclusion.

MR. SWANSON: Where are you, Commissioner?

COMMISSIONER NELSON: Page 5 of the Greber, lines 1 through 3, the full sentence that begins on line 1 and goes through line 3.

MR. SWANSON: I didn't think that was subject to a motion, but perhaps I'm wrong.

MS. EDWARDS: That was a portion of the Applicant's original motion. I wrestled with that, and it was a stretch to allow it in, I thought, because this seems -- sort of couches it as this is my opinion, but I leaned toward it being stricken.

COMMISSIONER NELSON: Thank you.

And so then the very last difference that I will ask about is on the Ehlebracht on page 4, lines 14 and

15. And you've pulled out a phrase, and this would be the same thing that I said on the first one.

It looks like all the rest of that sentence is what the counsel told him. And so would that not be hearsay?

MS. EDWARDS: I had requested "having been so advised by my counsel" so that it would just read, "It is my belief that" and go on. And as long as they were willing to stipulate that he's not a lawyer, I felt that that adequately couched the sentence.

COMMISSIONER NELSON: Okay. I can understand that. But if we pull out that phrase, Mr. Ehlebracht doesn't have the opportunity to reassess that and tell us whether that is a true statement or not because we have changed the meaning of the statement by pulling out "having been so advised by counsel."

MS. EDWARDS: He's testifying so I guess as a party I would feel comfortable that I could ask him on cross.

COMMISSIONER NELSON: Okay. Thank you. That's all the questions I've got.

MS. CREMER: Commissioner Fiegen, did you have any questions?

Chairman Hanson?

CHAIRMAN HANSON: No, thank you.

MS. CREMER: Do you have a motion in mind? Commissioner Nelson, do you need a minute?

COMMISSIONER NELSON: No. I think I can --

MS. CREMER: Okay.

COMMISSIONER NELSON: And, all, please forgive me if this isn't as coherent as it needs to be, but I would grant the Motion to Exclude as provided in the Staff's joinder motion.

However, I would also include from the Greber Affidavit page 4, lines 8 through the end of the sentence on line 11, and on page 5, line 1 through 3, the full sentence, starting with, "This seemed." And I'd be happy to answer questions if that's not clear.

So the sum total is we are leaving in a significant portion that Crowned Ridge had asked to be removed with some, I think, pretty very narrow areas that are clearly hearsay or legal conclusion.

MR. SWANSON: Again, if I may be heard on that, I'm not offering the statement for the truth of it. He has told you where he -- because he's not a trained lawyer. He is advising the Commission the grounds why he is here as it relates to his property and the concerns that he has.

And if the Commission doesn't want to hear about the future of these property owners and their rights to

enforce legal rights under nuisance law because this wind farm will exist by virtue of statute and an operating permit and a Conditional Use Permit in three counties, whether that can be challenged.

For example, if -- let's just assume, if I may be heard on this, that you authorize 45 dBA for noise and it's well documented that somewhere up to 45 dBA is an absolute onerous task for a property owner and they decide to challenge this on the basis of nuisance, nuisance law under Chapter 22-10. I'm not sure they'd be able to do that judicially because once it's been authorized by a statutory process --

There's a wonderful case from Magistrate Judge Simko in Sioux Falls. Somebody challenged the grain elevator, the way it was functioning in Parker, South Dakota, creating dust and mold and so forth, and they sued to enjoin the continued operation as a nuisance. And Judge Simko said grain elevators exist by virtue of statute, and you can't shut it down.

Now if that's what your intention is, is to disarm property owners from challenging the future of this wind farm operation, and if that's your intention, well, that's fine, but that's more evidence that you're disarming property owners and their legal rights. And why you would not want to be fully informed of that,

well, that escapes me.

And I appreciate the fact that we're all concerned about whooping cranes. I applaud you for going to bat for whooping cranes. We're the only people that go to bat for these property owners around Goodwin. And we're pleading with you, much like a whooping crane, that you should listen to our concerns.

Thank you.

MS. CREMER: Okay. So I just want to say that really wasn't your turn to speak because we were --

MR. SWANSON: Sorry. Sorry.

MS. CREMER: And so, Crowned Ridge, I'm not going to let you speak to it unless I'm told otherwise.

But, Commissioner Nelson.

COMMISSIONER NELSON: So I guess my question for Mr. Swanson, if the motion that I've made passes, how in any way does that prevent you or your clients from bringing the type of nuisance suit that you just described?

MR. SWANSON: It doesn't. I'm just simply trying to be informative.

COMMISSIONER NELSON: Thank you.

MS. CREMER: So, with that, there is a motion by Commissioner Nelson. So I will just run through the vote. Commissioner Fiegen -- or did you want to discuss

your motion?

CHAIRMAN HANSON: Yeah. I -- I'd just like to say in listening to Mr. Swanson's soliloquy, I -- I mean, you had me. If it doesn't affect -- do I understand that correctly? The vote on this will not change their ability to --

MR. SWANSON: No. No. And I didn't mean to imply that. All I'm trying to do is be informative with the testimony.

CHAIRMAN HANSON: Okay. It just sounded like we were taking away their right to pursue those avenues.

MR. SWANSON: Potentially you do with a final permit.

CHAIRMAN HANSON: Okay. Thank you.

MS. CREMER: Did you want to discuss your motion at all?

COMMISSIONER NELSON: I don't think so. I mean, my statements would be exactly the same thing that Staff had in their brief. We just came to a little bit different conclusion.

MS. CREMER: Okay. So, with that, there is a motion in front of the Commission.

Commissioner Fiegen.

COMMISSIONER FIEGEN: Fiegen votes aye.

MS. CREMER: Chairman Hanson.

CHAIRMAN HANSON: Aye.
MS. CREMER: And Commissioner Nelson.
COMMISSIONER NELSON: Aye.
MS. CREMER: So that motion passes 3-0.
So the Motion to Strike, everyone should understand what's in and what's out, I believe. If you don't, when we come up to it, you can ask. Which will bring us to Mr. Swanson's direct case.
MR. SWANSON: Do we wish to have those exhibits redacted accordingly at this time, or how do you wish to proceed?
MS. CREMER: You can resubmit them at a later -- you don't need to do it now. Is that what you're asking?
MR. SWANSON: Well, I guess if a Motion to Strike has been granted, I would feel a little weird about offering exhibits that are unredacted because I --
MS. CREMER: You can late file them. Would that -- I just don't want you to have to stop everything now to do anything about it. Or what is your -- what would you like to do?
MR. SWANSON: Well, I think Commissioner Nelson has included in the motion that has passed items that are actually beyond PUC Staff's and even beyond the motion of Crowned Ridge if I'm not mistaken.
COMMISSIONER NELSON: No.

MS. CREMER: I don't think so.

MR. SWANSON: So, I mean, I outlined what was within Miles's motion and then what was reduced by Staff, and I guess I'm not -- I'm no longer trusting of my own handwriting here to see what --

MS. CREMER: I guess if you trip over something, we'll bring it up to you.

MR. SWANSON: Well, hopefully the record -- hopefully we have a good court reporter that will --

MS. CREMER: We count on her entirely.

CHAIRMAN HANSON: I would like to see within the time frame of this hearing a clean copy.

MR. SWANSON: I don't have any ability to do that.

MS. EDWARDS: I can put one together, circulate it amongst the lawyers to see if you all agree on it, and file it tonight if we all do.

CHAIRMAN HANSON: Thank you very much.

MS. CREMER: So are you -- are you prepared then, Mr. Swanson, to call a witness?

MR. SWANSON: Call Garry Ehlebracht.

(The oath is administered by the court reporter.)

DIRECT EXAMINATION

BY MR. SWANSON:

Q. Would you state and spell your last name for the

record.
A. Garry, G-A-R-R-Y, Ehlebracht, E-H-L-E-B-R-A-C-H-T.
Q. And what is your address?
A. 17539 468th Avenue, Goodwin, South Dakota.
Q. And by whom are you employed, Garry?
A. Self-employed. Self-employed and by the United States Postal Service.
Q. At Goodwin?
A. In Goodwin. I'm a PMR so I can move around to other post stations as needed.
Q. Are you a native of the Goodwin area?
A. Since '99.
Q. Now, Garry, you were here during the discussion that we've had on the Motion to Strike, which has been approved. And I'm sorry. The exhibit that's in front of you to your right does not have those items marked so I want you to bear that in mind.

In addition to the Motion to Strike, which reduces the content of the exhibit to some extent, let me focus your question or your attention on Exhibit I-1. And I have this question for you.

In connection with your appearance here today, have you caused to be prepared a document which has been marked Exhibit I-1, which would contain the bulk of your Direct Testimony that you wish to offer at this time?

A. Yes.
Q. And is that document I-1?
A. Yes.
Q. And you understand that a Motion to Strike has been granted to certain parts of it on page 3 and page 4?
A. Yes.
Q. Are there any other changes or additions that you would wish to make to Exhibit I-1?
A. No.
Q. Now in your exhibit you do -- or in your Affidavit you do mention at some point on page 3 that you are familiar with a certain Crowned Ridge document that had been handed to your neighbor, Laretta Kranz?
A. Yes.
Q. Can you relate just a little bit more about the circumstances of how Ms. Kranz sought out your advice or counsel?
A. Laretta called me and said that this Adam McDonaldson [sic] contacted her about a wind farm lease. She said she would meet with him at Godfather's Pizza. At that point he gave her this document, which she gave to me.
Q. Is that the document that's been marked Exhibit I-2?
A. Yes.
Q. And what year was this that Ms. Kranz talked to you

about this document?
A. It had to have been the later part of '16, early part of '17.
Q. And have you had this document in your possession since then?
A. Yes.
Q. Did you ever hear from Mr. Adam McDonald?
A. Yes. He called me at my place of business and introduced himself as Adam McDonaldson, land agent for Crowned Ridge. He asked my thoughts on the project, the wind farm.
I mentioned to him that I thought that they were placing the turbines too close to property. At that time he laughed at me. And I said our conversation is done.
Q. All right.
A. I didn't appreciate it.
Q. Did you have any subsequent conversation with Ms. Kranz about I-2?
A. Laretta and I have been talking about the wind farm since that date.
Q. All right. Are you the person who told me about Ms. Kranz's medical condition at the current time?
A. Yes.
Q. She's unable to travel to Pierre?
A. Yes.

Q. Directing your attention to I-3, is this the document that you asked me to prepare on your behalf and your neighbor's behalf for intervention in this Application?
A. Yes.
Q. Does this document state certain additional facts about your property or the property of other Intervenors in this case?
A. Yes.
Q. And is it your wish that the Commission consider the contents of both Exhibit I-2, I-3 -- I'm sorry. I-1, I-2, and I-3?
A. Yes.
Q. Is there anything else you wish to add to your statement?
A. Well, you know, I don't -- I guess I don't appreciate what they're doing. Whether that means anything or not. I don't know why they seem to be -- think they can take from me what I've boughten or am paying for.

I work hard for what I've got. They want to throw a turbine up, what this says is 2,211 feet under the 100 megawatt array. Under the 200 megawatt array it's 3,900 some feet. But I'm sure as what I've seen these last couple days, trying to get straight answers is

almost impossible. And they're going to move right in.

And they sell this project to Northern States Power, they're not going to care. They're not going to care about the whooping cranes. They're not going to care about shadow flicker. They're not going to care about shadow.

There's more shadow than shadow flicker on my property because where 36 is, which is 2,211 feet away, I got a tree belt to the north and to the west, which most in South Dakota do. Because that's the way it is. You have nothing on the east side.

So turbines that are straight east of Laretta and I, trust me, you can look out in the morning, and where those turbines are going to be, it's right in line with our property. Guarantee it. You don't believe me, get out there and see it. It's true.

You know, I shouldn't -- you know, the property rights are mine. I probably can't say it, but it's my right, my property. It's not for sale. It's not for the taking. I wish you'd listen to that.

MR. SWANSON: Thank you.

I offer the witness.

MS. CREMER: Thank you.

Crowned Ridge.

MR. SCHUMACHER: No cross. Thank you.

MS. CREMER: Ms. Christenson.

CROSS-EXAMINATION

BY MS. CHRISTENSON:

Q. Since you purchased your property in 1999 have you made any improvements to your property?

A. Yes. Re-insulated the whole house, new windows, put the shed on. Put a 42-by-75 Morton building on. Got a little man cave in there. Got a hoist in there. Got heat, insulation. I also have OR Machining & Repair that I do out of that building. New tin roof, cedar siding on the house. Trees, multiple trees. Evergreens.

Q. Thank you.

So your house, the way it's situated, you talk about not having trees to the east. Would your main living area be -- the windows, would that be facing those turbines that would cause the most flicker?

A. Yes.

MR. SCHUMACHER: Excuse me. I'm going to object to what I would term as friendly cross here. I think that we need to be a little careful about leading questions in this context.

MS. CREMER: And I would just remind everyone -- and we've had this come up in our prior hearings. The standard that the Supreme Court has said is the purpose of cross-examination is to test the truth of direct

testimony. And so we have limited it to that in the past, and we will do so today.

So if there's something about -- that he said on direct examination that you found to be less than credible or that needs to be tested, you can ask a question. But you cannot do friendly cross-examination.

MS. CHRISTENSON: So I did ask about the turbine flicker into his windows. Is that friendly cross-examination? Because he talked about not -- his view.

MS. CREMER: It really is. His attorney could have asked all those questions on direct. He did not or they chose not to because it's in his Affidavit. You cannot now ask him to supplement his case.

MS. CHRISTENSON: I see. Okay. Thank you very much.

That's all, Garry, for me. Thank you.

THE WITNESS: Thanks.

MS. CREMER: Mr. Robish.

MR. ROBISH: I have no questions for Garry.

MS. CREMER: Thank you.

Staff.

CROSS-EXAMINATION

BY MS. EDWARDS:

Q. Just one. Can you just point out kind of where you

live on that map?
A. There's a little white square right there (indicating). Whoops. I'm sorry.
Right there above Bemis, one half-mile to the north there's a small white square. Ms. Laretta Kranz lives right there. She's got a half-mile square. So that's where I am right there. So 36 is right there. 32 and 29 is another problem (indicating).
MS. EDWARDS: Thank you. No further questions.
THE WITNESS: Yep. Thanks.
MS. CREMER: Chair Hanson.
CHAIRMAN HANSON: I'm still contemplating whether I have a question or not as I'm reading through this.
Thank you for your testimony so far. I may have one at the end here.
MS. CREMER: Commissioner Nelson.
COMMISSIONER NELSON: I have no questions. Thank you.
MS. CREMER: Thank you Fiegen.
COMMISSIONER FIEGEN: Thank you. And, you know, thank you for coming. This process is not easy. And even the legal part is hard for a lot of us. So hang with me when I ask you this question.
You know, when you got up and your -- A.J.

Swanson was asking you questions. And I wrote a note down quick. And, you know, my shorthand is a little short sometimes. So I miss it, so I always have to sometimes ask Cheri.

You talked about not appreciating and then you said something like they have taken from me what I paid for I think was your statement.

THE WITNESS: Yeah.

COMMISSIONER FIEGEN: Paid for, are you talking about the land that you paid for or some air rights?

THE WITNESS: My land.

COMMISSIONER FIEGEN: Okay. Your land.

THE WITNESS: Yeah.

COMMISSIONER FIEGEN: Thank you.

CHAIRMAN HANSON: I'm struggling to -- I understand -- see if I can phrase the question without trespassing.

COMMISSIONER FIEGEN: You trespasser. I'm going to call him that from now on.

CHAIRMAN HANSON: I understand that you were perturbed with someone, in your testimony. You hung up on them.

Were you -- stop me if I do -- if I go beyond this. But your statement is then government should be prepared to pay for it if government plans to take

something from me.

Were you offered a lease opportunity or did you --

THE WITNESS: Never talked to at all. Ever.

CHAIRMAN HANSON: Do you think you --

THE WITNESS: By anybody from Crowned Ridge.

CHAIRMAN HANSON: Do you think you may have shut the door when you said don't call me again or --

THE WITNESS: He's seen me at Commissioner meetings that he was at that I was at. I've been to every one of the Board of Adjustment meetings, all the late night meetings.

You know, I was assaulted by a Commissioner at a meeting. And that's on file, but nothing's ever been done by the State's attorney or the sheriff. Never been done.

CHAIRMAN HANSON: Okay. That's beyond our scope.

THE WITNESS: I realize that.

CHAIRMAN HANSON: Well, as Commissioner Fiegen said, we really appreciate the challenges you're having in going through this process and you coming all the way out here to chat with us.

I'm sure all three of us have empathy with you and want to follow the law here and do the best we can.

But thank you very much.

MS. CREMER: Mr. Swanson --

Oh, I'm sorry. Commissioner Nelson.

COMMISSIONER NELSON: I've been pondering kind of a philosophical question throughout all of this. And, frankly, I'd love to ask Mr. Swanson these questions, but I'm not going to get that chance. So I'm going to ask you, and if we can find an answer, great, and if we can't, that's fine.

So in responding to Commissioner Fiegen, you indicated that your property had been taken.

THE WITNESS: Yes, sir.

COMMISSIONER NELSON: Your physical property has been taken? Explain to me what has been taken or what will be taken.

THE WITNESS: It will be taken by the effects that the Applicant, what do you want to say, puts on a participant by the means of -- I could read it.

"Audio, visual, view, light, flicker, noise, shadow, vibration, air turbulence, wake, electromagnetic, electrical and radiofrequency interference, and any other effects attributable to the wind farm or activity located on the owner's property or on or adjacent property over and across owner's property effect easement."

COMMISSIONER NELSON: And so as it relates to

any of those things, is there a level of those effects that you would not consider a taking of your property, or is a de minimis amount of any of those something you'd consider a taking of your property?

THE WITNESS: Honestly?

COMMISSIONER NELSON: Yes. Please.

THE WITNESS: It's going to be every one of them. Every one of them is going to affect me.

COMMISSIONER NELSON: No matter how small the amount. Is that what I'm understanding?

Or is there a small amount that you wouldn't consider to be a taking of your property?

THE WITNESS: Honestly, no. They're going to take it all from me.

COMMISSIONER NELSON: So then let me transition this to maybe a different context.

How far do you live from Ms. Kranz's house?

THE WITNESS: 1,000 yards.

COMMISSIONER NELSON: Okay.

THE WITNESS: She's my neighbor.

COMMISSIONER NELSON: And I take it she must be elderly.

THE WITNESS: Yeah.

COMMISSIONER NELSON: Does she have grandchildren?

THE WITNESS: Yes, she does. She's lost one grandchild.

COMMISSIONER NELSON: Okay. So I'm going to piggyback off something Mr. Swanson said this morning. So it's the Fourth of July. I've been to Kranzburg on the Fourth of July. Love Kranzburg on the Fourth of July.

COMMISSIONER FIEGEN: You do?

COMMISSIONER NELSON: A parade, you bet I do.

THE WITNESS: I don't go.

COMMISSIONER NELSON: And so Mrs. Kranz's children or grandchildren are shooting fireworks on the Fourth of July.

THE WITNESS: Okay.

COMMISSIONER NELSON: You can see them. You can hear them.

THE WITNESS: Yeah.

COMMISSIONER NELSON: Is that type of thing a taking of your property?

THE WITNESS: It's not 24-7.

COMMISSIONER NELSON: Okay. And so that in your mind is the difference.

THE WITNESS: It's every day every minute all day all year for what did Mr. Hanson say? 25 years?

COMMISSIONER NELSON: Okay.

THE WITNESS: I don't know how it can be allowed. They know it (indicating).

COMMISSIONER NELSON: Okay. And I appreciate your having that discussion because that's what I'm trying to wrap my mind around.

And, obviously, at the end of the day we three have to take all of that against the statutory criteria and figure out where all of that falls. But I wanted to understand what you're thinking. So thank you.

THE WITNESS: And, again, I can't speak for Steven because he's at sea. It's going to be worse for him.

COMMISSIONER NELSON: Well, you can't speak for Steven.

THE WITNESS: I know. I had to say it. Sorry.

COMMISSIONER NELSON: Thank you.

THE WITNESS: Okay. Is that it?

COMMISSIONER FIEGEN: No. I have another question.

THE WITNESS: That's okay.

COMMISSIONER FIEGEN: Because you may know I'm married and you may know I'm not. But I have selective hearing with my husband, and so I may have had selective hearing. So I am so sorry.

Okay. So Commissioner Hanson asked you a

question. Or you made an estimate to him maybe. I can't remember now. I'm so sorry. So something about they never talked to me.

And so I have to say who is "they never talked to me"? Because it sounds like -- you testified that a land agent called you on behalf of Crowned Ridge II. So are you saying like Mr. -- like Tyler didn't talk to you? Because he works for NextEra and Crowned Ridge II. But the land agent did?

Help me understand that statement.

THE WITNESS: The land agent called me, directed by Ms. Kranz, because she wanted some advice on what to do with the lease agreement.

COMMISSIONER FIEGEN: Oh. Oh, okay.

THE WITNESS: And she said I'm going to have to let my advisor look at that.

COMMISSIONER FIEGEN: Oh, okay. So they did call you, the land agent did, and you suggested maybe not to call back.

THE WITNESS: Yeah.

COMMISSIONER FIEGEN: Okay. Thank you. That's all I have.

MS. CREMER: Thank you.

Mr. Swanson.

MR. SWANSON: Nothing further.

MS. CREMER: Thank you for your time. You may step down.

(The witness is excused.)

MS. CREMER: You can call your next witness.

MR. SWANSON: Call Amy Rall.

(The oath is administered by the court reporter.)

DIRECT EXAMINATION

BY MR. SWANSON:

Q. Would you state and spell your name for the record, please.

A. Amy, A-M-Y, Rall, R-A-L-L.

Q. And where do you live, Amy?

A. 17192 469th Avenue, Goodwin.

Q. Hold on just a minute.

Amy, in connection with your appearance here today have you caused to be prepared a two-page document I believe it is? It's been marked Exhibit I-6?

A. Yes.

Q. And is that document in front of you?

A. Yes.

Q. And do you have any additions or changes that you wish to make?

A. The only thing I would add is pretty much what Garry read off of the effects easement.

Q. Okay. You're concerned about the same items that

are in the effects easement of Exhibit I3?
A. Yes.
Q. Or I-2?
A. Yes.
Q. Are you pegged or targeted to be fairly close to one of these wind turbines?
A. Yes. I'll have number Crowned Ridge II 58 southwest of me, and Crowned Ridge II 60 will be directly west.
MR. SWANSON: Miles, are the Intervenors -- I know on some of the maps of the project the Intervenors are noted in a different color?
Are they noted that way on A27? Or A27-2?
MR. SCHUMACHER: I don't believe so.
MR. SWANSON: Would you like to have the witness demonstrate or point out where she lives?
COMMISSIONER NELSON: I've got it here.
COMMISSIONER FIEGEN: But it's still great.
THE WITNESS: There (indicating).
Q. All right. You're just northeast of one of those turbines that have been marked as a safe harbor?
A. Yes.
Q. Turbine in yellow?
A. Yes.
Q. What are the circumstances of the layout of your house? Do you have windows facing to the west and east?

A. Yes, we do.
Q. Are you expecting to receive shadow flicker then from the wind turbine that's due west of your home?
A. Yes.
Q. And also to the south and west of your home?
A. Yes.
Q. Those are 58 and 60, I believe?
A. Correct.
Q. Are the statements in your statement, your Affidavit, I-6, are those matters as we have now talked true and correct?
A. Correct.
Q. All right.

MR. SWANSON: Offer the witness.

MS. CREMER: Thank you.

Crowned Ridge?

MR. SCHUMACHER: Thank you. No cross.

MS. CREMER: Ms. Christenson.

MS. CHRISTENSON: I'm not really sure what I can ask.

MS. CREMER: You have to test the truth of what she just said. So if you believe there's something -- you know, so I'll leave it at that.

MS. CHRISTENSON: No. I have no questions then.

MS. CREMER: Mr. Robish.

MR. ROBISH: No questions.
MS. CREMER: Staff.
MS. REISS: I have no questions. Thank you.
MS. CREMER: That would bring us to Commissioner Nelson.
COMMISSIONER NELSON: No questions.
MS. CREMER: Commissioner Fiegen.
COMMISSIONER FIEGEN: No questions.
MS. CREMER: And Chair Hanson.
CHAIRMAN HANSON: No questions. Thank you.
MS. CREMER: Thank you for coming, and you may step down.
CHAIRMAN HANSON: Forgive me. I do have one.
When I read on page 2 of your testimony, I just noticed it again, that originally the -- one of the -- I believe it was CR2-58. I'm not certain -- was creating a noise level of 42.5, and it appears now it is 40.5; is that correct?
THE WITNESS: Correct.
CHAIRMAN HANSON: Okay. Thank you.
MS. CREMER: So Mr. Swanson.
MR. SWANSON: Thank you, Amy.
(The witness is excused.)
MR. SWANSON: I just have one more witness I would like to call, and I would like to call this witness

adversely. His name is Tyler Wilhelm.

I would like to follow up on the examination that I was not permitted to undertake with him as a form of recross, following up on Staff counsel's questions from yesterday.

I have at most two questions for this witness.

MS. CREMER: Crowned Ridge, do you have any sort of response?

MR. MURPHY: Well, I would object to calling Tyler as an adverse witness, given that, two things, Mr. Swanson had the opportunity to conduct cross during our direct case. He did conduct cross. And then he later wanted cross beyond the scope of redirect, and in proceedings like this throughout the country at State Commissions the rules are very similar that that's not allowed so essentially he's asking the Commission to overrule a previous ruling.

MR. SWANSON: I think that was in connection with their case in chief. This is my case, and I should be entitled to call the witnesses who are present and available in the hearing room as I wish.

MS. CREMER: Well, we had the procedural order go out, and people were to have listed the witnesses they intended to call. I don't recall him being on your witness list.

MR. SWANSON: Oh, no. He was not on my witness list. But I don't wish to reargue the motion as to the matter of not being entitled to crossing as a result of Staff's question. I'm only trying to clarify --

Let me tell you what I want to clarify. May I?

MS. CREMER: You may.

MR. SWANSON: All right. What I want to clarify is in the use of participation agreements would Crowned Ridge be motivated to use those only in the case of what were nonparticipating landowners and when the effects are in excess of whatever it is the PUC will order in this case?

So, for example, if you order, let's pick a number out of the air, 30 hours of shadow flicker and 45 hours dBA, are they going to be amenable or would they be welcoming of the use of participation agreements with what were originally nonparticipants only if either or both of those effect levels are to be exceeded?

That's my question.

MR. MURPHY: I think I can help. I think that question was answered several times, and the answer is no, that we are -- that if those -- one, we don't have any --

CHAIRMAN HANSON: Excuse me. Excuse me. I don't know that it's within your realm at this juncture

to testify as to -- I know you can say what you believe, but that's already testimony.

If we've got the person here to testify, I would think that if it's been asked and answered, it's going to be on the record. I don't want to go through the process of trying to find it on the record because I know it took more than one question to answer it. Why not just let him come up and answer the question.

MR. MURPHY: I agree with you, and that's what I was trying to say. I believe it's been asked and answered. So I'm not -- and I would have a standing objection to recalling him. But it is your decision.

MS. CREMER: Okay. So, Mr. Swanson, would Mr. Murphy's response be adequate --

MR. SWANSON: No.

MS. CREMER: Well, you didn't even let me finish.

MR. SWANSON: I'm sorry. I honestly do not believe that question was asked and answered.

MS. CREMER: Well, heaven forbid we leave an unanswered question here.

Mr. Wilhelm, you just need to come on up. And you may have a standing objection to all of this.

And let me just do this. Do you need a minute to talk to your client?

MR. MURPHY: I would not mind that.
MS. CREMER: Yeah. And we need a break anyway.
MR. MURPHY: Right. Because this is fairly unusual.
MS. CREMER: Absolutely. So we will break until 3:15.
(A short recess is taken.)
MS. CREMER: So we'll go back into session.
Mr. Wilhelm, you are still under oath, and, Crowned Ridge, you have a standing objection.

DIRECT EXAMINATION

BY MR. SWANSON:

Q. Mr. Wilhelm, I believe I have -- oops. Let's try it with the button on.

I believe I have just a single question for you. And you were here when I posed the question, I think, so do you understand my question?

A. I would ask that you repeat the question, please.

Q. All right. We had had a discussion to some extent on the record about participation agreements yesterday.

Do you recall that discussion?

A. I do.

Q. And Staff counsel had also asked you a question about participation agreements.

The question I would like to ask you is at what

point in time or at what occasion would Crowned Ridge, your employer, consider or propose the use of a participation agreement with someone who has been previously a nonparticipant?

Would the occasions include only when whatever the effects level that will come out of this PUC final decision for noise and shadow flicker -- when those are being exceeded, or would it be on any other occasion such as when those levels have not been exceeded? That's really a long discussion but --

A. Yeah. There was a lot of stuff said right there.

I believe the -- could you shorten the question for me?

Q. Well, let me try it again.

The question that I'd like to ask is on what occasions, if you know, would Crowned Ridge use a participation agreement? Would it use them whenever the effects level ordered by the PUC are being exceeded?

Would you use it in that case?

A. That would be a situation where it would be used. However, the project -- we aren't expected to exceed any of the local or state siting requirements to where we would have to utilize a participation agreement.

Q. Well, I understand. There's a lot of things I don't expect to be doing either and I find myself doing them

and that's just the way it is.

MR. MURPHY: Objection. You know, this is -- it's not a question. It's commentary on his life.

MR. SWANSON: Aren't you interested in that?

MR. MURPHY: I am actually not interested at all in that.

MR. SWANSON: Thank you.

Q. So, Mr. Wilhelm, if you were to find yourself exceeding the effects level, whether it's sound or shadow flicker or both, is that an example where you would use a participation agreement?

A. It would be. But, more importantly, we'd be out of compliance, and we'd need to fix that issue.

Q. I understand that. Understand.

Would you ever use a participation agreement on any other occasion, even where the effects levels are not being exceeded?

A. I'm going to try to shorten the response to I think the direction you're going. We execute participation agreements with people who want to participate in the project. You know, if people are not interested and have expressed that they're not interested in the project, then, you know, we respect their opinion and go from there.

But we've completed our land acquisition process and

our outreach and have all the easements necessary and, you know, we've concluded that process.

Q. I understand that.

Now this all started, as I recall, when I received a production of a Staff request to you that was then responded to you about so-called good neighbor agreements.

Do you recall that?

A. I do.

Q. In that response did you say we will or not -- will not use good neighbor agreements?

A. I said we do not offer good neighbor agreements.

Q. And you don't plan to offer one for this project?

A. That's correct.

Q. All right. Is the participation agreement something other than a good neighbor agreement?

A. The term "good neighbor agreement" is something that's used within the industry. We have a participation agreement. I can't -- I can't speculate what goes into a good neighbor agreement. We have a participation agreement.

Q. All right. I thought the response using the term good neighbor agreement was in your response, not in the question posed.

A. I have -- in one of the Data Requests, my responses

to the Data Requests, I did state that we do not offer good neighbor agreements on this project.

MS. CREMER: So I believe you said one question. He has a standing objection. I am -- this to me has all been asked and answered. But I'm seeing -- did you guys want to say something?

COMMISSIONER NELSON: I've got a question. But I promise I've got just one.

COMMISSIONER FIEGEN: Oh, my. I object.

MS. CREMER: Commissioner Fiegen, did you have -- or did you want something?

COMMISSIONER FIEGEN: I just object to Commissioner Nelson. But other than that, I guess I'm only one vote. Go ahead.

Just kidding. I was just kidding. Just kidding.

MS. CREMER: So at this point I am sustaining a portion of the continuing objection. I believe you asked your question. We have had these.

But, Commissioner Nelson, if you want to ask a question, which might prompt a response from Mr. Swanson.

MR. SWANSON: Did I get an answer? I don't think so.

MS. CREMER: Yes. You got an answer. I waited until he was done talking.

COMMISSIONER NELSON: The agreement that a participant signs that we have all been talking about, if the participant's property does not host any of the infrastructure for this project, are there annual payments made to that person?

THE WITNESS: Yes.

COMMISSIONER NELSON: Thank you.

MS. CREMER: So I'm trying to think in my head if that prompts the ability for anyone else to ask a question.

And it appears he is Mr. Swanson's adverse witness. So, Mr. Swanson, do you have a question for redirect based on Commissioner Nelson's question?

MR. SWANSON: I do not.

MS. CREMER: All right. Thank you. You are excused, Mr. Wilhelm.

(The witness is excused.)

MS. CREMER: Okay. So, Staff, did you have a question that needed to be asked?

MS. REISS: Kristen may, but I -- Staff does not at this time, no.

MS. CREMER: Thank you.

Was that your last witness?

MR. SWANSON: Yes. That's it.

MS. CREMER: Thank you. Moving on.

So, Ms. Christenson, Mr. Robish, you did not file prefiled testimony so you have no direct case to present.

That would take us to Staff. You may call your witness.

MS. EDWARDS: Staff calls David Lawrence.

(The oath is administered by the court reporter.)

DIRECT EXAMINATION

BY MS. EDWARDS:

Q. Mr. Lawrence, welcome. Can you please state your name for the record.

A. My name is David Lawrence. My business address is 4820 East 5th Street, Suite 8 in Sioux Falls.

Q. What is your professional title, job title?

A. I'm a state certified general real property appraiser in South Dakota.

Q. And as a state certified general real property advisor [sic], what are your job responsibilities?

A. Primary job responsibilities are valuation services, real estate consulting, and market impact analysis.

Q. Can you please briefly describe your relevant educational background.

A. Sure. I graduated from Western University completing a business degree. My continuing studies, I directed those towards the Appraisal Institute for my

real estate profession where I obtained the MAI designation, the SRA designation, the AIGR-SS [sic] designation, and the AIG-RR [sic] designation.

From there I also continued my education and studies in real estate with the International Right of Way Association where I received the SRWA designation.

Q. And can you briefly describe your relevant work experience?

A. Sure. I have a wide range of background in real estate appraisal in South Dakota, starting with residential, commercial, through my profession. Most of my time has been spent on right-of-way projects, energy related and infrastructure projects around the Midwest.

Q. Have you testified before this Commission previously?

A. Yes, I have, I believe a few times in previous wind dockets.

Q. Thank you.

And drawing your attention to what has been marked as Staff Exhibit S5, and I have that in front of you?

A. I have that in front of me.

Q. Do you recognize that document?

A. Yes, I do.

Q. Is that your prefiled testimony?

A. Yes, it is.

Q. Do you have any additions, deletions, or corrections to make?
A. I have one correction. Within my sales analysis I misstated the manufacturer of the wind turbine. It should be GE.
Q. And that's in S5?
A. Yes.
Q. An attachment or --
A. In the sales analysis of my exhibits.
Q. Sure. Thank you.
If I asked you the same questions today as those posed in your prefiled testimony, would your answers be the same?
A. Yes, they would.
Q. And drawing your attention to what has been marked as Staff Exhibit S6.
A. Okay. That's in front of me.
Q. Do you recognize that document?
A. Yes, I do.
Q. And what's that?
A. That's my Supplemental Testimony that I filed on January 23, 2020.
Q. At the time it was filed was it true and correct to the best of your information and knowledge?
A. Yes.

Q. Do you have any additions, corrections, or deletions to make at this time?
A. Same -- I had the turbine type misidentified. It should be GE.
Q. In what sale was that?
A. CD-2.
Q. Thank you.
And can you please briefly summarize the content of your testimony, both Direct and Supplemental?
A. Okay. Sure.
In preparation of my testimony I was asked by the PUC Staff to update my research for a 2018 Market Impact Study that I completed in Brookings County in regards to influences of wind turbines projects and towers on residential selling prices of homes near proximity of a project.
With that research, identified 16 sales transactions in South Dakota. And with those 16 sales transactions I completed an interview analysis to verify details of the sale. I completed site analysis where I actually went out and looked at the properties.
And then I also completed a sales analysis where I looked at the selling price of the influenced property and compared it to noninfluenced properties around the areas that weren't in proximity to a wind turbine,

commonly referred to as a sales paired analysis.

With those 16 sales, 15 sales did not show any measurable effect on the selling price. 9 of the transactions were in proximity to an existing wind turbine that was in operation. And then there were seven of the sales that I identified that sold within a permitted wind project or near a project, but the wind tower construction was not in operation or complete.

Of one of those sales that I identified, for the first time I did find a sale that did show a negative influence to the negotiation process of the transaction, which was identified in my exhibits as CD-2. I think in this hearing it's been commonly referred to as the Richter sale.

And with that sale there was a -- that sale was south of Waverly, South Dakota, within the footprint of the Crowned Ridge Wind project. That sale was listed on the Watertown MLS, and there was an offer on the property for $350,000. The seller disclosed the proximity of a wind tower or future location of a wind tower, and the buyer canceled the offer due to the proximity of the wind tower, not wanting to live around the tower near the property. The property later sold for $275,000.

From that sale with -- excuse me. And from that sale -- so there was a difference in the selling price.

To quickly summarize that sale, I continued with my Supplemental Testimony in January to investigate that transaction to determine why or what was going on with it.

I contacted every member of the transaction that I could get ahold of to interview them of what motivations or what were going on with that sale and why there was a difference in the selling price. I interviewed both sellers of the property. I interviewed the buyer that canceled the transaction, and I interviewed the seller and both brokers of that.

And the facts of the transaction were influenced during the negotiation process of the disclosure by the seller of the wind tower or the future location that affected that sale price.

Also with -- just to summarize my Supplemental Testimony with the work I completed, I also -- an intervenor provided additional information to me on some of the information of the sales research that I completed around Gary, South Dakota, that I included in my analysis.

One thing, just to summarize some things that were particular about the Richter sale that I thought were unique, there seemed to be some things with the sales transactions that were difficult to apply to every rural

residential sale in the proximity of a wind tower. However, the sale did show -- the sale did show -- in my opinion, it did show that there is a population of South Dakota -- of market participants that are sensitive to living around wind towers.

And from that sale I also gathered that there is a -- depending on the legal question is answered about the South Dakota Disclosure form, there could be some influence on the transaction of how the seller -- or if they would disclose the proximity of a future wind tower or project around their home if they would go to sell the property.

Q. Thank you.

You just mentioned that an intervenor gave you some additional information?

A. Yes. That's correct.

Q. Was that intervenor in this docket or a different docket?

A. I believe that was a different docket. And that is included in my Supplemental Testimony, the information that they provided.

MS. EDWARDS: Thank you. I have no additional questions on direct and tender this witness for cross.

MS. CREMER: Thank you.

Crowned Ridge?

MR. MURPHY: No cross.

MS. CREMER: Mr. Swanson.

MR. SWANSON: Just a few questions of Mr. Lawrence.

CROSS-EXAMINATION

BY MR. SWANSON:

Q. I think you and I met in a case a few years ago.

A. Really? What case was that?

Q. Old school property in Lennox, South Dakota. I was an expert, and so were you.

A. I do remember that with Meierhenry.

Q. Meierhenry. Now retired.

A. That was a good case. I was honored to be a part of his case.

Q. Yeah. What a class act.

A. Yes.

Q. Mr. Lawrence, I've only had a brief chance to look at your filings. Let me just ask the questions this way:

In your appraisal work dealing with residential property in and around wind farms, do you document as part of your appraisal analysis the distance to one or more wind turbines?

A. Okay. Just so I can clarify it, you're referring to it as an appraisal. Are you referring to my market study --

Q. I'm sorry. You are an appraiser.
A. Yes.
Q. But you were doing a market study here?
A. In terms of the profession, so I don't get confused, when you say "appraisal" to an appraiser I'm assuming opinion of value is performed for specific property. And what I performed for this hearing for the update of my 2018 research was a Market Impact Study that I looked at where I looked at sales transactions of rural homes that sold near the proximity of a wind farm so --
Q. Right. As part of your analysis then did you make any comparison of how far those homes are from one or more wind turbines?
A. In some of the sales transactions that occurred, yes, I was able to estimate the proximity to the property.
Q. So you might -- if you have an estimate made, did you note it in your work?
A. Yes. In my exhibits included with my testimony I believe they would be references to BK sales near the Buffalo Ridge Brookings County area. Because, as I said previously, I identified 16 sales transactions. Of those sales transactions, there were nine sales that occurred let's just call it in the Buffalo Ridge Brookings County area with existing turbines running and they have a

history of operation.

And what was particularly interesting that I identified was six or seven sales in the footprint of a permitted wind project. However, there was no turbines surrounding the property yet. It was only the perception that they were going to be there. And so just to differentiate between those.

So those it was harder to estimate the specific distance. It was just based on a map and a calculation that I could do with those to determine the distance of where those towers were going to be versus the ones in Brookings County where I could look at a GS, they're on an aerial, and I could estimate the specific feet away from the property.

Q. All right. So whatever information you got about existing wind farms and property and the distance was something that you went through and determined on your own as an estimate?

A. Yes.

Q. All right. Did you also determine whether or not those residential properties near an existing wind farm were subject to a particular sound level or elevated sound level perhaps?

A. Excuse me. I didn't have a statistic measure. My measure of sound was driving onto the property and if

there was evidence of sound from a wind turbine or not. I would acknowledge that is sound.
Q. All right. So you didn't go dig through a record somewhere and determine what has been determined as an established sound level for that property?
A. No, I did not.
Q. Did you do anything to quantify whether the property was subject to shadow flicker at all?
A. I did that in two ways. I did that through my interview analysis with participants that owned the property. It could have been the buyer or seller at the time.
If that was brought up during the interview process, I would have done that through my site analysis when I visited the property. If the turbines were turning that day or if it was I shadow or noise on that property when I visited, I would have noted it in the sales analysis.
Q. All right. So whatever determination you made about noise or shadow flicker as being an issue for that residence, you would have noted it in your analysis?
A. I would. There would be some comment from the seller or buyer or who I interviewed. Or maybe there would have been a comment of what I observed that day when I was at the sale -- or at the property.
Q. All right.

MR. SWANSON: That's all I have. Thank you.

MS. CREMER: Ms. Christenson.

MS. CHRISTENSON: Thank you. I just have a few questions too.

CROSS-EXAMINATION

BY MS. CHRISTENSON:

Q. In Brookings County did you research through whatever means would be available to you, whether that be real estate agencies and/or brokers in the area of any sale -- or any properties that I would call no sales where properties had been listed -- and I'm speaking only of rural residential properties. Property would have been listed in the area of a wind turbine that --

A. Oh. Excuse me.

Q. No. Go ahead -- and a sale was never completed?

A. Let me explain my research process a little bit of how I identified sales in Brookings County to determine the transaction. Because it's a good question to see if there are expired listings that didn't sell.

To identify sales transactions that occurred in proximity to a wind turbine, my first source was the -- Brookings has a site called Beacon, if you're familiar with it that you can subscribe to, and it lists all the sales for a period of six to 10 years that I used to look at.

Now that doesn't have expired listings, but that does show sales that occurred. And from identifying rural residential sales, I took those sales and addresses that I was able to identify in Beacon, and then I would match them up on the aerial of the location like on a Google map.

And then from there it's pretty obvious when you look at an aerial where the turbines are located and, okay, I've identified a transaction. So that was one way I identified sales.

The other way was through the Brookings County MLS, which I did query searches for expired listings that were near turbines and sales transactions. And if I would have identified a sale that was expired, it wouldn't have been specific market evidence, but it would have been part of my -- maybe something that I might have looked at to see what was going on and why that property didn't sell. And so that would have been part of my research that I would have completed.

Q. Very good explanation. Thank you.

A. So if you know of an expired listing, I'd sure be interested in it.

Q. Okay.

So two properties that you discussed were the Richter property and then the one submitted by an

Intervenor. Those properties were both rural residential and recently sold; correct?

A. You know, that's a good point. I just thought about something because that was one -- you just identified something that I missed. Well, that was not included.

Richter was a sales transaction that did occur that's closed. Okay. It's recorded with a deed in the Register of Deeds. There is one sale that I didn't mention in my Direct Testimony called JE-1 that was an expired sale. That was near Toronto.

So I don't believe that -- I can't remember what MLS system that was captured on. I think that would have been in the Watertown but not the Brookings area MLS. So there was an expired listing that I looked at. And I actually went to the property and met with the owner on it.

Q. And what did you learn?

A. It's in my Direct Testimony.

Q. Oh.

A. I don't know if you read that.

Q. Well, I thought I did. But I read a lot.

A. Yeah. It was -- it's a very interesting property. Some of the wind turbines are within, from my estimate, 700 to -- 800 feet to 1,500 feet, surrounding the property.

And, you know, I inspected the property. There was a newspaper article about this gentleman's property and his ability to -- he had a difficult time selling the property. It never sold. So I was never able to further analyze anything because I didn't have a completed sales transaction to look at.

Q. Thank you.

One other question is did you -- or were you able to look at statistically are there more new listings in the areas of these wind developments than historically how often they changed ownership?

I might not have asked that very well, but you kind of get it?

A. I understand what you're getting at.

Q. Okay.

A. You're trying -- I would say it's more difficult in the research that I performed because in rural areas -- as you know, rural properties don't transfer as often as properties within the city limits of Brookings or Watertown. So that gets to be a difficult statistical measurement.

I would say that in the sales that I did research -- and actually I recently identified a number of them in my exhibits that did transfer within Brookings County. Since my sale research was completed in 2018, I think

there were three sales that I identified, and even as recent of closing as November of 2019 that --

I interviewed the seller, and the seller provided me some pessimistic comments about, you know, shadow and noise around the house. But when he put the property on MLS it sold within 30 days, close to his asking price, which I was surprised about too.

And what was more interesting about this sale is that he purchased the property in 2016, resold it in 2019 for a 6 percent appreciation a year on that property.

So a seller's telling me things, negative comments about living around wind towers, you know, that I hear everyone talking about from shadow and noise, but yet when he goes to sell the property it doesn't seem there's any measurable effect on the selling price.

Q. Can you tell me where that property is located in relation to a city population? I'm saying like Watertown where someone would work, Milbank, Brookings. A sizable community?

A. It's east of Brookings. I can't remember the exact mileage. Obviously Brookings to the Minnesota/South Dakota border is fairly close. What is it, 25 minutes?

So I don't remember the exact distance. It's a rural property. It's far enough away so it's not

influenced by the immediate proximity of Brookings, but it's within, you know, a reasonable driving distance. I could give that address to you if you wanted it. I just don't have it right here in front of me.

Q. No. That's okay. That's a good generalization for me.

MS. CHRISTENSON: Those are all my questions. Thank you.

MS. CREMER: Mr. Robish.

MR. ROBISH: I don't have any questions, but I'm really impressed with you.

THE WITNESS: Thank you.

MR. ROBISH: You know your stuff, and you don't have to read it and study through it. You know your stuff.

THE WITNESS: Well, thank you. I try to be very thorough with what I do.

MR. ROBISH: You're very accommodating.

THE WITNESS: I know this is a sensitive topic to nonparticipating landowners. And I take my job seriously, and when I do this kind of work I get involved. And one of the things I do is I meet with a lot of people around South Dakota. I go to their houses. I call on the phone.

MR. ROBISH: Well, you don't know how I

appreciate that. Thank you very much for your testimony.

THE WITNESS: Thank you.

MS. CREMER: That brings us to Commissioner questions.

Commissioner Fiegen.

COMMISSIONER FIEGEN: You know, I'm going to let Gary start, and then I do have questions -- or I'm sorry. Chairperson Hanson, if you would like to start. But I do have questions later but I'm going to let you start and I'm going to clean up. One, two, three.

CHAIRMAN HANSON: You are a baseball fan; right?

Good afternoon.

THE WITNESS: Good afternoon.

CHAIRMAN HANSON: I don't know whether I should start out or end by congratulating you. It sounds like I'm starting out that way. You really did a good, thorough job. I am impressed.

I was an appraiser for a very long time and a broker, and I owned a company and did a lot of this work that you're doing. And you did a very, very good job. Very impressed with it.

Also the fact that you were able to find 13 comparables. That's amazing.

THE WITNESS: It takes a while.

CHAIRMAN HANSON: Yeah. A lot of groundwork.

And I like the way you put things together for us, the way you explained certain situations. You know, there's a lot of conflict here within the information that you receive as you go through this process, and you wrote that and explained it.

And on page 6 you explained that the evidence supports the presumption there have been no adverse effects on the selling price of rural residential properties in proximity to a wind tower. And then you explained, however, there seems to be. And the interview and site analysis support the presumption that proximity to a wind tower can influence the quiet enjoyment of the property and view of the rural scenery.

And I'm going to get to a question here. But also on page 10 you explained, "An interview with the seller in this particular instance provided nothing positive about living within the proximity of the towers." That's so telling about all of the concerns that everybody has.

But the sales data shows that the property sold within 25 days on the market and had a market appreciation rate of you explained it was over 6 -- 6 and twenty-sixth -- 6.26 percent a year. And so that's a significant increase. And the seller reported numerous potential buyers. And this is what's curiosity for me,

brings me to a question.

"The seller reported numerous potential buyers which showed initial interest would not consider the property because of the surrounding proximity of the wind towers near the residence," which bears out everything that everyone's been saying about the concern of the value of their property.

Now I have to admit as I'm reading these different things, portions of it, I thought for sure you were going to come up with the fact that, yes, there's an effect on the valuation of the property. And here you say that "Many negative comments from the market" -- did you mean the market or did you mean the buyer? You meant the marketplace; right?

THE WITNESS: Market participants.

CHAIRMAN HANSON: -- "and the seller but the sales data suggests normal market transaction without any measurable effect on the selling price."

You know, it's just -- it just doesn't fit with everything that we see in history on valuations and sales. You know, if there's a whole lot of negatives on a property, how in the world does it sell so quickly?

Is it because Sioux Falls grew from 150,000 to 200,000 in that short period of time that there's so many people moving here? Could that be an influence on market

values in that area? Did you take that into consideration?

THE WITNESS: Yeah. You asked a lot of questions at once so we'll see -- I prefer one at a time, but let me see if I can answer this.

I would say that -- I mean, I do a lot of these type of damage studies on different type of properties, energy projects. I would say that you could see my conclusions as I was developing them. Okay. I'm completing these interviews with market participants. And these are sometimes I would talk to people who hadn't sold their home and just lived around the towers and just tell me about your experience.

And so you can see that I was starting to develop opinions from what people were telling me who lived around them. There's shadow. There's noise. Okay. I'm getting -- you know, I'm getting data from people telling me that there are effects around their property.

And then I'd go visit. You know, I want to go see what's going on with these. I'd go to some properties. And some of the site visits that I'd make specifically in the Buffalo Ridge area -- and that seemed to be an early permitted project. Obviously, the setbacks from some of the homes are a lot closer than

what's being done now in the dockets.

And I would go out there, and I'd hear noise. You know, sometimes I'd see the shadow flicker that people are talking about. And I thought, okay, you know, I'm seeing some of this too. And then I'd go take the sales data and I would compare it to what's selling around the neighborhood or market area that's not near the towers and the data would show that there's no difference in the selling price. And so that surprised me to be honest with you.

I thought I was headed towards a damage conclusion on some of these. And the sales data doesn't support that. But then I'd also -- I'd hear from some people from the negative comments. But then I'd also go back, like the you one -- we talked about with 6 percent appreciation. I was really surprised about that one. That was in November of 2019 that sold in 30 days on the MLS.

The seller reported the flicker effect, the noise, didn't like wind towers, was glad not to be living around them but yet he had 6 percent appreciation on his home and it sold within 30 days. That's pretty good.

I think some of that's attributed to the location near Brookings because I think there is probably a limited supply or smaller supply of rural acreages. I

think the price range that that sold at, I can't remember, I think it was 230. I could be off. But it was in that range of properties that sell really well, like $200,000 range.

But, then again, if you look at I think it was -- there was a sale back in 2018 that identified -- DE-4, I was surprised at this one too, that sold for $530,000. And it was on MLS. And I drove up into the yard and went and talked to the gentleman. And I said, well, you just paid $530,000. What about these wind turbines? And I can hear them and this. And he said that doesn't matter, you know.

And I went and researched the sales data, and it was the highest price for a rural residence in that area in 2013.

And so I think I'm answering your question. It goes all over. To bring this together, I was surprised because I get one side that tells me about these negative influences on their property and seemed it legitimate, but you can compare it to the sales data and the sales data doesn't support the comments. It shows that these properties do sell within the range of the market that are uninfluenced sales.

CHAIRMAN HANSON: There's a number of things to take into consideration there. And you did point out

that they were arms-length transactions. When something appreciates by nearly -- well, 20, 26 percent, depending on the 15 to 19, how many years you're looking at there, improvements are also pertinent. Were there -- the guy had a double garage or a new roof or family room or something off the back?

THE WITNESS: That affects appreciation. And the one that we're talking about, the 6 percent during the interview, nothing. I think the gentleman kept his house in well maintained condition, but there weren't anything new or remodeled condition for that appreciation rate.

There was one north of Gary that I identified that had a significant appreciation. But when I talked to the seller of that property, or maybe it was the broker, there was some remodeling done, which would explain a significant jump in appreciation. Maybe not attributable to maybe market timing but specifics that have been improved on the property.

CHAIRMAN HANSON: Oftentimes in MLS you're able to obtain a photo of the house prior to this other person buying it.

Were you able to see something of that nature?

THE WITNESS: I don't recall doing that for this home. The one north of Gary, I didn't -- I probably

didn't further investigate that because I felt like the interview gave me the reason for why the appreciation, because he did a significant remodel on the home from when he purchased it to when he sold it.

CHAIRMAN HANSON: Okay. In my experience a lot of times when you have that many folks looking at a property, you often sell the house for a higher price than what it's listed for. You get people jumping back and forth presenting several offers, and the person who wants it the most pays more for the property.

Do you think that could have been a phenomenon here that was missed? Because so many people that were potential buyers for this property decided, no, I don't want it. You took those people out of that mix of the opportunity for looking at the property and making an offer, which would cause someone else to increase theirs?

Do you think there might have been a loss of equity there for the seller?

THE WITNESS: Which property are you referring to? I'm sorry. You jumped from one --

CHAIRMAN HANSON: No. You jumped.

THE WITNESS: I apologize.

CHAIRMAN HANSON: No. That's fine. I'm talking about the 20 or 25 percent increase in value.

Any one of the properties that you're dealing

with. If you've got a lot of buyers, do you think that might be an opportunity lost when -- if you lose a population of buyers, you lose the opportunity for a higher price?

THE WITNESS: I would say my favorite answer is it depends. But I would say any time -- you know, as long as you have two potential buyers, you have potential for, you know, a bidding process.

So just because you remove from that buyer pool some of the market participants that don't want to live around a rural residence in proximity to a wind tower doesn't mean you're not going to have demand for that home. Because, obviously, from my research there's market participants that it doesn't bother. Or else we wouldn't have 15 sales transactions of properties selling around the area, you know, in proximity to a wind tower.

CHAIRMAN HANSON: In your writings here I believe you said 13 comparables at one point, and then you just -- no. Yeah. 13. And you said 16 in your oral --

THE WITNESS: Let me clarify that.

I was referring to, okay, in my 2018 research I believe it was -- you're testing me on this now. I identified a certain amount of rural residences that sold.

Because in my previous 2018 research I included some agricultural. There might have been some other different sales. For this update my specific direction for the scope of work for this study was rural residential properties.

So I already had a data set from the Brookings County ones that identified I think it was six or seven. And then I identified some additional sales near Gary and Waverly that I communicated. So I think there was a total of 16 sales, of sale transfers of rural residential properties.

CHAIRMAN HANSON: I appreciate Staff putting on this witness because you have a great deal of credibility with me.

Thank you very much.

COMMISSIONER NELSON: Did you listen to Mr. MaRous testify yesterday?

THE WITNESS: Yes.

COMMISSIONER NELSON: And you heard the questions I asked him about the disclosure statement.

THE WITNESS: Yes. If you're asking to ask me what -- I'd like you to remind me what those questions were.

COMMISSIONER NELSON: Well, I was going to try to get by easy by just asking if you agreed with his

conclusions, but I will you ask the questions.

THE WITNESS: Okay.

COMMISSIONER NELSON: So the disclosure statement that was at issue in the Richter property -- and I'm not an expert, but I read through a disclosure statement, and it appears to me that it is asking to disclose those things that are located on that property.

I didn't see anywhere on there where it asks about things that are on the neighbor's property.

THE WITNESS: Uh-huh.

COMMISSIONER NELSON: And so is it your conclusion that Mr. Richter was required to disclose what he anticipated happening on the neighbor's property?

THE WITNESS: Okay. Well, you're going in contrary to my testimony that I didn't want to provide a legal opinion on that.

COMMISSIONER NELSON: I understand.

THE WITNESS: So putting me in a tough position. But that's okay because I brought this up in my testimony. Because when I was researching out sales in the Waverly and Gary market I was surprised by brokers -- brokers brought this up.

And then it happened with the Richter sale. That's the only reason that I started to think about this process.

With disclosure and the proximity of the wind tower, that's a tough question to answer. And I still think it's a legal question. It's not for an appraiser to answer. But I tried to answer to the best of my ability by asking the real estate profession.

And if you look at the question I specifically put in my testimony about what material facts are relevant to this property -- and when I said, hey, Real Estate Commission what do you do here? I've got brokers going back and forth --

(Discussion off the record.)

THE WITNESS: So I contacted the Real Estate Commission to ask what their interpretation of a material fact is. And, obviously, they said it's a legal opinion. Ask an attorney. But we'll give you the definition that we provide brokers to answer the question.

So it's very vague. It was to the fact of it's any relevant fact that a buyer would want in the decision-making process. So that's open. That's really open. Okay.

So do I believe that that's everything outside of a property? No. In my opinion, no, it's not. But can it be a relevant fact that will affect the buyer of that property? Yes.

So if I was to ask Intervenors in these

proceedings if you were to buy a rural residential property, would you consider it to be a material fact of disclosing the proximity of a wind tower to a property, I bet they would answer yes. So if I would ask the seller of one of the sales that identified in my study if that was a relevant fact that should be disclosed, there's a number of them there I would guess that would say, no, it didn't matter to me. So it comes back to buyer preference.

Obviously, in the Richter case I've talked to him many, many times on that because it was very -- it was very particular the timing of his disclosure that caused the sale to fall through. And I asked him, I said, you know, that is not typical, during the negotiation and then all the sudden you -- you tell someone that there's going to be a tower across the road. That should have been done a long time before you had, you know, a reasonable offer.

Then what I learned from the conversations with him is that he felt it was the honest thing to do when he became aware of the location of the tower. So and he felt that that was a relevant fact that needed to be disclosed. And, obviously, the buyer of the property was one of the people that are sensitive to wind towers and wind projects and didn't want to live around it.

So to come back to your question, I don't know how to answer that.

COMMISSIONER NELSON: Thank you. I appreciate the discussion, and I think I can say that you and Mr. MaRous are solidly on the same page on that question.

THE WITNESS: Okay. Good.

COMMISSIONER FIEGEN: Thank you, Mr. Lawrence. And, you know, thank you for coming back. I know that we've had a lot of wind permits this past year, and you haven't always been available for the Staff to bring forward. So I appreciate you coming.

But I still have a lot of questions. And I really have a lot of questions about the Richter. But I'm going to come back to that.

I want to go to Brookings first. When Commissioner Hanson was asking you questions about the 13 or 16 or whatever, you were talking about Brookings, but you made a comment about the Brookings market.

THE WITNESS: Uh-huh.

COMMISSIONER FIEGEN: Because anecdotally I've heard of this, and you testified to it, that Brookings may -- did you say that the Brookings market for acreages or rural homes may be at a premium because there aren't very many and there's a lot of people working out of the Brookings area?

I mean, you didn't say that, but did you kind of say that they were at a premium?

THE WITNESS: I would say premium as in price, I don't know about that. But what I would clarify is that -- and we see this. I'm from Sioux Falls. We see this effect around Sioux Falls. It's the radius wherein the closer to Sioux Falls, the more buyers you have so there's more demand.

When I was researching a number of the sales transactions with brokers and buyers of the property I had a number of comments from the people that stated that, you know, acreages were harder to find in the area and that they don't always come for sale. And so I had buyers state that when this one came for sale we wanted it because it was in the location we wanted.

And so that was -- that's what based my opinion on the -- I would say -- you know, not limited supply, but there's just not a number of them that come on the market for sale around Brookings.

COMMISSIONER FIEGEN: Sure. So Crowned Ridge II is away from Brookings.

THE WITNESS: Yes.

COMMISSIONER FIEGEN: Further away.

THE WITNESS: Uh-huh.

COMMISSIONER FIEGEN: Did you make any statement

about your testimony on rural acreages there and the availability compared to your statement that you made about the Brookings area?

THE WITNESS: No. But I can.

COMMISSIONER FIEGEN: Okay.

THE WITNESS: I would say there's a -- not as strong effect as Brookings. I think we'd all acknowledge that Brookings is a very good market with the universities. But Watertown, however, is, you know, a very large city in South Dakota, and so it has jobs, schools, and employment. And I know there's a buyer pool that wants to live in the rural area around Watertown.

It's the same effect that I see in a lot of our communities like Sioux Falls I live in; the farther you get away from that time distance relationship to jobs, work, and school, that buyer pool drops off. And I think around the Crowned Ridge area you start to get out of that from the distance. You know, when I was driving to Gary I started to feel like it was too far.

So if that answers your question.

COMMISSIONER FIEGEN: Yeah. It does.

I'm going to go back to S6, I believe it is. And it's your interview questions. And I keep on reading them on that Richter project. I keep looking at them and reading them, and it appears --

So yesterday you heard Mr. MaRous probably talk about the Richter project. And so I listened to him. I didn't ask him a lot of questions about it. But I certainly listened to him and what he said.

THE WITNESS: Uh-huh.

COMMISSIONER FIEGEN: And he made a lot of assumptions. But I look at the appraisal, and didn't I see the appraisal come in at 300 -- oh, man.

THE WITNESS: 320,000.

COMMISSIONER FIEGEN: Yeah.

THE WITNESS: That was during an interview process. So I asked for the appraisal so I could substantiate that. But that gets difficult to start prying that much to get that kind of information from somebody.

COMMISSIONER FIEGEN: Right.

THE WITNESS: But through the interview I established that the bank appraisal for the financing was 320,000.

COMMISSIONER FIEGEN: Okay.

THE WITNESS: I would say on the Richter sale, you know, I have 15 sales transactions in South Dakota that don't show any measurable effect. Right.

The Richter sale is the first one that I found that shows that there is some influence. Just some

influence from how -- I would just say how it came about and how the sale was managed.

And I tried to differentiate that in my further investigation. Because when I first saw that I thought, man, there's got to be some kind of motivating factor here that's at play besides the wind towers. Because I have all the sales data showing me something else. So why do we have this one sale now showing something.

And through my investigation I just kept interviewing and trying to figure out what was going on, and the evidence was consistent that the sale fell through from the disclosure of the wind tower.

Now I still think the timing of it was really tough. The disclosure of deciding to disclose it right after you receive an offer is very difficult.

COMMISSIONER FIEGEN: You know, I think that's -- I also think that's South Dakota.

THE WITNESS: I agree. I believe -- when I thought of that I thought, man, the broker had to have mismanaged it. What were you doing disclosing it right after you received the offer? You do that at the start when you sign the listing. If you feel morally obligated that's a material fact, put it on the disclosure.

And so I thought, okay, this sale has been mismanaged, and that's the result of losing this buyer.

Because if this would have been presented properly, maybe it wouldn't have been that big of a deal.

But when I interviewed the Richters -- I e-mailed him so many times on this just to follow up with questions, I'm on a first-name basis. I said, Why? Why did you wait to time it right after you received the offer? And I mentioned this earlier. He said, We believed it was the right thing to do. So they felt morally obligated to do it.

COMMISSIONER FIEGEN: Yeah. I think it's that South Dakota nice. I really do.

THE WITNESS: Yeah. Yeah.

COMMISSIONER FIEGEN: I so appreciate your detail. And unlike the Intervenors that said thank you for your detail, it's uncomfortable when I sit up here and hear a lot of assumptions and then I see your detail, I very much appreciate that.

So you were in front of us the very first time, and I can't remember which one it was, if it was Crocker, Prairie -- no. Prevailing Winds, which one it was.

Anyway, you testified -- I think you testified that you said it would take 12 months to 18 months really or maybe even two years to really do a detailed study. And you continued to add on to your study, which was nice.

So this is probably more of a comment, but so this area, this by Brookings and Watertown, if you were to do this study 10 years from now, you would have all sorts of information in your database.

THE WITNESS: Well, if sales transactions occurred around the wind towers projects, yeah, we just continually are monitoring it and establishing sales transactions.

I have a number of market impact studies that I've done. I'm not saying we're doing it with this one but very interesting data like that that I started back in 2008 on on an energy project, and I have been continually updating sales transactions on that project for this -- specifically, this kind of same methodology.

And it's very interesting to watch because the consistency in the data and the trend that if you can establish continually that we're seeing the same results over and over and over again, even as time moves forward or in this case as you're permitting more and more wind towers around South Dakota, we're answering the questions.

COMMISSIONER FIEGEN: I know. And I wish I had that answer 10 years from now when I make this decision. But I don't.

THE WITNESS: No. I understand.

COMMISSIONER FIEGEN: So thank you.

MS. CREMER: Staff, did you have any redirect?

MS. EDWARDS: Yes.

REDIRECT EXAMINATION

BY MS. EDWARDS:

Q. Mr. Lawrence, can you form an opinion on damage to the Richter property, amount of damage?

A. Not at this time I would not be able to.

Q. Why not?

A. I believe that further analysis would need to be made with the property in regards to a detailed site inspection, and there would need to be an appraisal established to provide a value opinion to the property as of the effective date that it sold.

Q. Did you visit the Richter property?

A. Yes, I did.

Q. Did you note any other aspects that would go into that analysis?

A. Aspects? Define aspects.

Q. Was there anything else in the area?

A. When I looked at the Richter sale and I visited the property there were two things that came up in my mind at the start when I investigated the property that I thought -- that appeared to me that could be motivating factors that could influence the selling price.

And that was I noticed that when I did the deeds research at the county courthouse that there was a shared driveway with the property. And then there was also a cattle yard bordering the property to the west. So those are the two things that I did notice.

MS. EDWARDS: No further questions. Thank you.

MS. CREMER: So that would bring us to recross but only as to Commission questions. Or redirect.

And Crowned Ridge.

MR. MURPHY: Nothing. Thank you.

MS. CREMER: Mr. Swanson.

MR. SWANSON: Nothing for this gentleman.

MS. CREMER: Ms. Christenson.

MS. CHRISTENSON: I do have a couple.

RECROSS-EXAMINATION

BY MS. CHRISTENSON:

Q. When you talked about the shared driveway and the cattle yard, those things didn't change from the time the appraisal was made; right? Those would have been -- those would have been included on the original appraisal?

Those aren't new things added to the property. That would be my question.

A. Okay. So I never completed an appraisal on that property. My work went to completing a market analysis.

When I eventually looked at the property I testified

that I was trying to verify if there was other contributing factors that could have affected the sale price. Those are two things that I initially identified were the shared driveway, which is not typical in the market, and then the neighboring cattle yard. And I did verify that just because those -- sometimes those externalities can affect properties.

I did verify that the cattle yard was not in operation or it was only seasonal. So from the older aerials of Google Earth I looked at, it wasn't in full operation at this time. And the shared driveway, when I interviewed -- when I interviewed both buyers it was never brought up about the shared driveway or the cattle yard so I never considered it.

Q. Do you know when that appraisal was completed?

A. I'm trying to remember the exact date of the sale. It was sometime -- it was around -- it would have to be around the date of the sales transaction -- of the $275,000 transaction that occurred because it was completed for bank financing.

So if you wanted to know approximate effective date of value, I can look at my records. Or if you just looked up the county records to see when the sale closed, that's right around when the appraisal would have been completed.

Q. I think that answers my question, that the appraisal is recent and the driveway didn't look new to you because it's a shared driveway.
A. No. It's just a gravel road.
Q. Okay. Another thing that you brought up were the addition of more wind farms in the area. So, in your opinion, the more wind farms being clustered in the area -- like we have Crowned Ridge I is built right now. We're adding Crowned Ridge II. We're getting Dakota Range I, II, and III. We have Deuel Harvest. We have Buffalo something. I mean, that whole area is going to be clustered.
Do you foresee that being a market influence?
A. I wish I could answer that question at this time. I would say it depends. Unfortunately, with what I can do all I can do is look back in time, not forward. I think that would go to something that Commissioner Fiegen and I were kind of discussing about -- of what happens, you know, across the landscape of South Dakota as we continue to permit more and more of these towers of what could happen, and I don't know the answer to that question.
Q. Okay. And then the properties that you did -- that did sell that you said you talked -- and I'm not sure if this one is in the redirect so you'll have to tell me.
The properties that sold that you said you talked to

the people that said they didn't like living by the turbines, they didn't like the noise, sound, flicker, did you talk to any of the new buyers -- the new owners after they had moved into the property for any period of time?

A. No, I did not. I just -- the party, the transaction that I contacted was the seller on that one.

MS. CHRISTENSON: Okay. Thank you. That's all I have.

MS. CREMER: Mr. Robish.

MR. ROBISH: I have nothing to add.

MS. CREMER: And then Staff, did you have any final redirect?

MS. EDWARDS: No.

MS. CREMER: Thank you, Mr. Lawrence. You may step down.

THE WITNESS: Thank you.

(The witness is excused.)

MS. CREMER: Staff, who is your next witness?

MS. EDWARDS: Our next witness was going to be David Hessler. So he might be a long one.

MS. CREMER: There was some discussion -- people wanting to be done closer to 5-ish, as we're moving along quickly. So --

MS. EDWARDS: We have Ms. Meyer here too if that

would be quicker.

I'm sorry. Mrs. Morey.

(Discussion off the record.)

MS. EDWARDS: Staff calls David Hessler.

(The oath is administered by the court reporter.)

DIRECT EXAMINATION

BY MS. EDWARDS:

Q. Mr. Hessler, please state your full name and business address for the record.

A. My name is David Hessler, and my address is 5096 North Silver Cloud Drive in St. George, Utah.

Q. And how are you employed?

A. I work for Hessler & Associates, which is a family-run company of acoustical consultants.

Q. And what's your job title?

A. Vice president.

Q. As vice president of Hessler & Associates, what are your job responsibilities?

A. Acoustical engineer, and we specialize exclusively in power plants and the impact assessments, testing, noise control, that sort of thing.

Q. How did you become involved in this docket?

A. I was retained by Staff to offer impartial technical support. Not that you need it.

Q. Can you tell us generally what you reviewed or

analyzed in preparation for your testimony in this hearing today?
A. Yes. I've reviewed the noise study submitted by the Applicant and its subsequent revisions. Also the Direct and Supplemental Testimony of the Applicant's consultants relevant to noise, and also the Rebuttal Testimony of those consultants, and also some of the NextEra folks on noise.
Q. Do you see Staff Exhibit S2 there in front of you on the table?
A. I do.
Q. Can you please identify that document.
A. That's my Direct Testimony.
Q. Do you have any additions, deletions, or corrections to make to that testimony?
A. No.
Q. If I asked you the same questions as those posed in your prefiled testimony today, would your answers be the same?
A. Yes.
Q. At the time your testimony was filed was it true and correct to the best of your knowledge?
A. Yes.
Q. And I'm also going to show you what has been marked for identification purposes but is not in the record yet,

Exhibit S7.

Do you recognize that document?

A. Yes, I do.

Q. Can you turn to Condition 26 in that document, please.

A. Okay.

Q. And have you had a chance to look at that proposed condition?

A. Yes, I have.

Q. Does it incorporate the suggestions that you've made to Crowned Ridge?

A. Yes, it does.

Q. And throughout this process, either on your own or through Staff, have you had a chance to craft any other mitigating measures?

A. In my Direct Testimony I was critical of the project in the sense that there didn't seem to be a lot of effort made to get the sound levels down, specifically at nonparticipants. So I saw an opportunity to maybe improve things a little bit.

There are -- there were six turbine sites that were designated as alternates that were relatively remote from nonparticipants compared to some other locations. And so I gave a list of turbines that were, I considered, "bad actors" and -- for their consideration to move some of

those turbines to these more remote, alternate locations.

And they did take me up on that, essentially, and made four moves, moving four turbines to these more isolated locations. Two of the alternates were not practical to use.

MS. EDWARDS: Thank you.

I have no further questions and would tender this witness for cross.

MS. CREMER: Thank you.

Crowned Ridge?

MR. MURPHY: No cross-examination.

MS. CREMER: Mr. Swanson.

CROSS-EXAMINATION

BY MR. SWANSON:

Q. Mr. Hessler, I represent a few of the Intervenors in this case. I'm not sure if you were here or present for their testimony, but it was mostly in written form.

I wanted to ask you just a few -- very few questions about your Direct Testimony in S2. Page 3, line 10 where you say the project layout -- I'm trying to quote here. I believe this is a quote. "The project layout appears to have been aggressively devised."

Could you explain that a bit further for me?

A. Yes. I've seen a lot of wind turbine site plans, and this one struck me as being dense in the sense of

they're trying to put a lot of turbines into the project area.

Q. And it still remains that way as the plan now stands?

A. Yes.

Q. How could it be designed differently? Just a bigger footprint and the turbines more spread out, I gather?

A. That would certainly be an advantage for noise. There's a couple approaches. One is to expand the project area out and reduce the density. But that's not always an easy or open option.

There is also the possibility of using larger output units and fewer of them. Because the sound of all turbines in this general class is very similar. It's not that you're getting a louder unit just because it's putting out more megawatts. So that's one possibility.

But, you know, those options aren't very easy all the time.

Q. Did the Applicant respond to your expressed concern with any specific proposal or redesign concept?

A. Well, it did respond positively to my suggestion to move units to these alternate locations.

Q. Even with that being done, would you still consider it to be an aggressively devised or designed wind farm?

A. Yes. That hasn't changed.

Q. You note at page 4, line 22, that when you have -- and I think -- again, an exact quote from your statement. When sound levels are higher than about 40 dBA annoyance and complaints are more likely. Now that might be a paraphrase from line -- page 4, line 22.
A. Well, that says something totally different here in my copy.
Q. All right. Well, I want to be accurate so what -- that could have been a complete paraphrase. So what does line 22 say?
A. It's the end of a long sentence that has nothing to do with what you're asking.
Q. All right. Well, maybe I miswrote it.
Do you come to that conclusion anywhere in Exhibit S2?
A. That conclusion being again?
Q. Well, that when you have sound levels higher than about 40 dBA, that annoyance and complaints from property owners and residents around the wind farm is a more likely occurrence.
A. Yes. That's true.
Q. All right. You've written professionally about that fact, have you not?
A. Yes.
Q. One of those would be the -- and I don't know

what -- I don't recall the title, but it's by your authorship October of 2011, which was written for the Minnesota Public Service Commission. I'm sure you know exactly what I'm talking about.

A. Yes.

Q. It's an approximate 79-page article on noise control.

A. Yeah. They asked -- the Minnesota Public Utilities Commission asked for a Best Practices Guidelines.

Q. All right. And that's focused simply on sound and wind farms. Am I correct?

A. That's correct.

Q. As part of that report, you concluded -- well, you tell me. What were your general conclusions about noise levels as an appropriate design level?

A. Well, what I have maintained for some time now, and we're talking about 2011, since then, is that based on our experience testing completed projects, we feel like 45 is a reasonable and fair noise limit as a regulatory limit.

But we would hasten to add that if it's at all possible to get lower than that and ideally to 40, that it's definitely highly desirable.

Q. And so in your experience what sort of issues or complaints are likely to arise if the wind farm is

designed for 45 dBA as opposed to 40, as an example?
A. I think what we've found from testing a number of projects was that there was a likelihood of complaints at somewhere -- 2 to 3 percent of all the folks that live there. But once the level goes above 45, it's -- it goes up exponentially.
Q. All right. You advised the Staff of this Commission in the Prevailing Wind Park matter, did you not?
A. Yes.
Q. And that was -- I don't remember the docket number of it. EL18-026?
A. I'm sure that's what it was.
Q. All right. And that was in an area of South Dakota to the south central part of South Dakota, as I recall?
A. Yeah.
Q. And in that docket you recommended that the Commission provide by final order or decision that the wind farm observe 40 dBA at nonparticipating residences?
A. That's correct.
Q. Do you know if that wind farm's been built? Because I don't know?
A. I don't know either.
Q. All right. You had no input on the shadow flicker issues in Prevailing Park, did you?
A. No. I don't know anything about shadow flicker.

Q. Is your role here purely in advising Staff about the design of Crowned Ridge's wind farm and the work product assembled by their experts? Is that basically what you're doing?

A. I've been asked to review the noise study for adequacy, any things that I see wrong with it, that sort of thing.

What I did find was that, as I mentioned, I would have liked to have seen more effort made to get the sound levels down. But there weren't a lot of options there.

Q. And by a lot of options, it would have required the willingness to move turbines or delete turbines, perhaps?

A. Yeah. Because I -- you know, I would ideally like to see 40 for all projects, but it's very, very rare that that's a practical possibility. It was the case with Prevailing Wind, and that Applicant was very accommodating and moved things around and was able to meet a 40 dBA regulatory limit.

But that's a very rare case. That was a much less dense project and so on and so forth.

Here and really in every application what I'm looking for is is there something that could be reasonably done to significantly improve things? And the only real option here was to make use of those alternate sites.

Q. Okay. Are there any recommendations that you've made that remain on the table that the Applicant hasn't agreed to?
A. No.
Q. All right. What are the spikes in noise levels that one might expect from a wind farm, assuming, as an example, that 42 or 43 dBA has been predicted by the sound experts?
A. In general, wind turbine noise is highly variable all the time, due to turbulence in the wind, atmospheric conditions, wind sheer, various things. A lot of times the sound level will change in real time as you're sitting listening to it.

What we found when we measure completed projects is that you get a large data scatter for a given wind speed. You'll get a lot of different sound levels. But the mean level will be, oh, we've found right on the model prediction. It's the mean level.

But there's going to be some fluctuations about that. And it's typically, I would say, 5 -- plus or minus 5 would be a good number.
Q. 5 dBA?
A. Yes.
Q. There was some discussion with witness Haley about the use of ISO 9613-2 for sound propagation and

calculating attenuation, the G factor. And I know you're well familiar with those.

Is snow cover of ground to -- of any depth, is that typically something that a G factor of 0.5 would be applicable?

A. A coefficient of .5 would actually be conservative for winter conditions.

Q. Right.

A. Snow is usually at the top of the list of absorptive ground surfaces. Specifically, fresh snow as a -- I don't want to get too technical but flow resistivity. That's how much it allows the sound to get into it and kind of check in and not check out.

It's got -- snow has a low resistivity of about 10 to 30. I won't even get into the units that are used. They're very esoteric. But a parking lot by comparison would be a flow resistivity of about a million. So snow is very absorptive. Also frozen granular snow is the next thing on the list usually. So those sorts of things would demand a coefficient close to 1.

Q. Okay. Frozen granular snow is in that category as well?

A. Exactly. It's usually number two on the list.

Q. But ice is not?

A. If the snow were covered with a sheet of ice due to

sleet, under those specific circumstances it would be more reflective.

Q. I think you've just described the typical snow that I have at least on my farm.

A. If I can add to that, ground absorption is kind of a peripheral effect. The sound from a wind turbine to some point far away is 98 percent how far away it is and 1 or 2 percent everything else, including ground absorption.

That only has an effect around 250 hertz in the frequency spectrum, and that is below the range where you hear the whooshing sound. That's all a little bit higher frequency. So the ground absorption doesn't really take any of that away. So it's a very minor effect in the first place.

Q. A very minor effect in the first place. So if we were to deal with a wind turbine emitting noise at an 80 or 90 meter hub height --

A. Uh-huh.

Q. -- and we're dealing with receipt at a receptor, a residence, which can look out the kitchen window and see the turbine --

A. Uh-huh.

Q. There is a direct pulse of sound which goes from the source to the receptor, which has no interference with the ground at all; correct?

A. Yes. Ground effects would be the ground immediately in front of the house there, in front of the window. Usually it's divided into three areas, the area immediately near the source, the intervening ground, the area near the receiver. Most of the loss would come from the sound reflecting off the ground near the receiver point.

So it does occur. You wouldn't think that a high source like that would be affected by the ground, but it is. When you measure, what you see in the frequency spectrum is always a dip at 250 hertz attributable to this phenomenon.

Q. All right. Do you have any comments about the -- strike that.

The distance from my clients' homes to the closest turbine in this case varies between roughly 1,976 feet and 2,200 feet, in that range.

A. Okay.

Q. Does that strike you, based on your knowledge of sound emission issues on a wind farm, as too close for comfort?

A. No. No. 1,000 feet is too close for comfort.

Q. Well, that I would agree with you on.

All right. So when you say that the -- it is a -- an aggressively planned wind farm, the proximity from the

turbines to the residential homes, are you saying that has really no factor? There's no factor in that?
A. Well, it's not just what the distances are. It's how many turbines are around a particular house or a point of interest. What's happening here is that there's -- the density of turbines is such that there's a lot of nonparticipating houses with predicted levels above 40. At my last count I think it was approaching 100. It was a lot.
Q. Throughout the whole wind farm?
A. Yeah. Yeah. And I'd like to see a lot lower number there.
Q. Was your work in October of 2011 intended to be contributory, or was it contributory to what then became the NARUC Best Practices Guideline or report that came out in January of 2012?
A. Right. That was essentially a revision and expansion of the Minnesota work for the National Association of Regulatory Utility Commissioners.
Q. Is your work cited or relied on in the NARUC work, if you know?
A. I wrote the report, the NARUC report.
Q. I'm referring, though, to the Tom Stanton report that's called "Put It There," which is -- do you remember that one?

A. Vaguely.
Q. All right.
A. Yeah. No. Not --
Q. Yeah. I'm talking about a report that came out three months after your October of 2011 work.
A. Okay. All right.
Q. All right. And maybe you're not familiar with the Tom Stanton author.
A. Well, that was eight years ago. I think I did read it at the time, but now I forgot what it said.
Q. It's 186 pages so --
A. Yeah.

MR. SWANSON: All right. Mr. Hessler, thank you so much. And I'll pass this witness.

MS. CREMER: Ms. Christenson.

CROSS-EXAMINATION

BY MS. CHRISTENSON:

Q. Hi, Mr. Hessler.
A. Hello.
Q. You're very familiar with the Shirley Wind Farm in Brown County, Wisconsin; correct?
A. Yes.
Q. You did a study there; correct?
A. I participated in a joint study there, yeah.
Q. Yes. Can you tell us how many turbines are in that

Shirley Wind project?
A. I think it's only six or seven.
Q. Okay. Do you recall how many homes were abandoned that prompted that study that you were a part of?
A. Three for sure. Might have been more.
Q. Thank you.
The Shirley Wind Farm project, was that eventually declared a health hazard by the Wisconsin Board of Health?
A. Yes, it was.
Q. Thank you. I'm trying not to ask you all the same questions he did.
Your preferred design goal would be 40 dBA for this project as well?
A. For all projects, yeah.
Q. Yes. I don't know if you heard the Applicant testimony by Mark Thompson. I'm not sure if you did, but I'll just kind of refresh if -- he said they could add something called an enhanced power curve to feather the blades on a turbine.
Are you familiar with an enhanced power curve?
A. Yes. I did read that in his Direct Testimony. It's a new development that's supposed to give a 1 and a half dB improvement.
Q. Had you heard of that before?

A. No.
Q. Okay. Crowned Ridge Wind II has committed to using all low noise trailing edge blades in this project. And my understanding from reading previous dockets, and I believe you were a part of, that low noise trailing edge blades reduce noise 2 to 3 dBA?
Does that sound correct?
A. That's what is claimed. I haven't gone and tested it myself so I'm not real sure about that.
Q. So by adding those two things together, would it be possible for Crowned Ridge Wind II by using your suggestions to maybe get a little closer to the 40 dBA design goal?
A. Well, actually they're not that far away from it.
Q. Okay.
A. Because the modeling adds in a 2 dB uncertainty factor. And all that is is increasing the turbine level by 2. It's lifting all the levels by 2.
And now the further commitment to use this EPCO optimization essentially in theory reduces all levels by 3 and a half dB. Now almost all of the nonparticipants, according to current modeling, are in the 40 to 43-ish range. So by setting aside the safety factor in the modeling and by using this EPCO, in effect, the actual level should be around 40 or less for just about

everybody.
Q. So then your recommendation would be for the Staff or Commission to maybe make that a condition to add that to a turbine -- to the turbines to get that sound reduced. Would that be a fair statement?
A. To use the EPCO --
Q. Yeah.
A. I think that's already been agreed to.
Q. Okay. Did Staff ask you to do any study in regard to infrasound and/or low frequency noise for this project?
A. They didn't ask me to do it, but I did talk about it in my Direct Testimony.
Q. Okay. Not an actual study, just --
A. Oh, no. No study.
Q. You just discussed it?
A. I just discussed it.
MS. CHRISTENSON: That's all the questions I have. Thank you.
THE WITNESS: All right.
MS. CREMER: Thank you.
Mr. Robish.
MR. ROBISH: Yeah. Al Robish.

CROSS-EXAMINATION

BY MR. ROBISH:
Q. Hi.
A. Hi there.
Q. You stated if you put bigger turbines, the noise is kind of the same, but you put fewer of them. Would that lower our dBA then for nonparticipators?
A. In theory, yes, if you used considerably fewer turbines and sited them in an optimal way.
Q. Because they're really concentrated.
Amber just asked about infrasound. Do you do infrasound testing?
A. Infrasound testing itself is extremely difficult to do. It was done at the Shirley project we were just talking about.
Q. Yeah.
A. And we had to bring in Dr. Walker who is an expert in instrumentation to custom build a measurement system to detect it. And it can't be measured with normal instruments.
Q. Oh, okay. Yeah. I don't know how they do that.
A. Yeah. No. It's extremely difficult.
Q. Do you do sound studies just for wind projects? Do you do anything for OSHA?
A. Do I do anything for OSHA? I do a lot of measurements and so forth related to OSHA sound levels at

fossil fuel power plants.
Q. Okay. There we go.
A. Where the noise level is really high.
Q. Generators with motors on them? Engines on them?
A. Every -- gas turbines, diesels.
Q. Okay. 40 is highly desirable. Did you say that 40 dBA there was like 2 to 3 percent complaints?
A. For levels in between 40 and 45. I'd say 43, 44, that sort of level. Below 40, complaints are extremely rare.
Q. Oh, okay. 45, they go up quite a bit?
A. Yeah. The whole range of -- the whole spectrum of the situation is basically from 40 to 50. 40 is almost no impact, and 50 is definite impact.
Q. Oh. I was going to ask that. Okay. Thank you.
Do you do in-field studies or just sound modeling?
A. We do modeling, testing, design, every aspect of power acoustics.
Q. After the project is finished if I wanted to hire you to come out and do a sound study, do you do that?
A. Yes.
MR. ROBISH: Okay. Thank you very much.
THE WITNESS: You're welcome.
MS. CREMER: Thank you.
Chairman Hanson.

CHAIRMAN HANSON: Thank you for your testimony, Mr. Hessler. I don't have any questions.

THE WITNESS: All right.

(Discussion off the record.)

COMMISSIONER NELSON: Okay. So I'm going to ask the question that Chairman Hanson really wanted to ask. What is the dBA level of a whooping crane?

You don't have to answer.

THE WITNESS: I don't have a clever retort.

COMMISSIONER NELSON: I do have one question. In relation to Staff's proposed Exhibit S7, and you've looked at Condition 26, does this deviate from what we would have approved in our last docket, Tatanka, or any of the other recent dockets? Do you know?

THE WITNESS: I believe this is substantially similar to those in what's being required.

COMMISSIONER NELSON: So substantially similar means there must be some difference. Can you tell me what that is?

THE WITNESS: Each one evolves, and little things are added and tweaked. This one has a test protocol essentially built into it, which the other ones may not have.

COMMISSIONER NELSON: But in your professional opinion, this is a sound methodology -- sound.

This is a valid methodology for this type of test?

THE WITNESS: Yes. This type of testing is difficult to do for the simple reason you can't just walk outside the front of the house and use a sound level meter. You're going to be measuring everything going on, not just the project.

And background noise is a major influence here. It's comparable to the sound of the project itself. And so it's a matter of trying to parse those apart and figure out what the project is doing. That's the difficulty.

This uses an on-and-off technique to compare and so you're able to subtract out the background.

COMMISSIONER NELSON: Difficult. But something that someone with your level of expertise could, in fact, do and do accurately; correct?

THE WITNESS: Yes. Yes.

COMMISSIONER NELSON: Thank you.

COMMISSIONER FIEGEN: Thank you, Mr. Hessler, for coming back to South Dakota. I think all three Commissioners really enjoy reading your testimony. And then really -- I certainly enjoy seeing what the Applicant will do with your suggestions.

So this time you made suggestions on alternates,

and the Applicant again listened to your suggestions and put it in the conditions. Would you agree?

THE WITNESS: Yeah.

COMMISSIONER FIEGEN: So I certainly appreciate that.

You always teach us something. And sometimes you're on the phone, and we don't get to see your expression. But I want to go back to a statement you made, and I think it was when A.J. was asking you some questions.

And you went to this 98 percent is based on distance. Because, you know, that word "distance" is just one of mine today. And then you went to 1 to 2 percent is other stuff.

Am I assuming, because I have a little note here, that other stuff is the ground factor of that 0 or .5 or 1?

THE WITNESS: That's correct. The hemispherical divergence of sound from the turbine rotor, that loss with distance is almost all of the loss. There's just a few other minor effects.

Ground absorption is the most significant of them, but it's still small. It's only 1 or 2 dB at most. And then there's atmospheric absorption, the high frequencies get absorbed by the air. That's very minor.

But the big thing is just simply the distance, and it's just simple law of physics how much the wave front area expands with distance.

COMMISSIONER FIEGEN: So I want to go back to this 1 to 2 percent of other stuff on the ground. Because we've had a discussion about this in maybe Crowned Ridge -- one of our past projects.

THE WITNESS: Right.

COMMISSIONER FIEGEN: And so there was a lot of debate on the .5 or the .3 or 0. So did you just state it makes a difference of 1 or 2 dBA when you change those factors?

Because what I originally heard you say is that 1 to 2 percent, and 1 to 2 percent certainly would be less than 2 dBA.

THE WITNESS: Yeah. That was more just to illustrate the relative importance of distance versus other atmospheric effects.

Yeah. The ground absorption effect is small, but it's there. And what we've found is that when you go out and test, you get the best agreement in -- all these projects are out in rural settings essentially. You get the best agreement by just using .5 to predict the level and that will be the mean level that's actually measured out there. That's been our experience anyway.

COMMISSIONER FIEGEN: Okay. So if there was a big debate and you used just zero, it wouldn't make that big of difference. Because yesterday certainly it was asked of the Applicant why they chose .5, and they kind of said that was a standard. It's an average. But if they would use 0, it wouldn't make all that big of difference?

THE WITNESS: No. It would make a small difference, and it would end up overestimating.

COMMISSIONER FIEGEN: Right. Okay. I just -- you know, because we've talked a lot about ground and ice and snow and absorption and grass and trees. So when you brought that up I just wanted to make sure I understood that a little bit more.

Thank you. I appreciate it.

THE WITNESS: You're welcome.

MS. CREMER: Staff, do you have any recross as to Commission questions or redirect?

MS. EDWARDS: Yes.

REDIRECT EXAMINATION

BY MS. EDWARDS:

Q. Earlier you answered a question about the Shirley Wind Farm. Do you recall that?

A. Yes.

Q. And you were asked, I believe it was by

Ms. Christenson, about it being declared a health hazard by the Wisconsin Department of Health?
A. That's correct.
Q. And is that accurate, to the best of your knowledge, is it was the Wisconsin Department of Health?
A. It may have been the Brown County Wisconsin Department of whatever.
Q. Moving on, unless you want to talk more about Shirley. We know you like it.
A. It comes up in every case.
Q. After your testimony today do you maintain your recommendation to have a 45 dBA regulatory limit?
A. Yes.
Q. Okay. And also you were asked by Commissioner Nelson about changes in the sound protocol conditions. And for this question I'm going to ask you to turn to your testimony, S2, and then Exhibit DMH-2.

And I apologize. Your copy is not in color so it won't be as easy to read.

Darren has a copy.
A. I've got it here. It's gray. That's okay.
Q. Oh. So you can kind of tell --
A. I can tell.
Q. Can you tell us from that document what changes were made from the sound protocol generally?

A. In general it was to consider Crowned Ridge I and Crowned Ridge II as being essentially the same project for sound testing purposes. And specifically when it comes to doing the on-and-off test that I briefly alluded to.

What you want to do there is measure the sound with the project operating and then turn off all the turbines within a mile of that location to get the background under those exact wind conditions and everything else.

Now there may be a test position that's close to the boundary between the two projects. So it will be necessary to maybe perhaps turn off one of the -- or some of the Crowned Ridge I units. Or units from the other project, vice versa.

Q. So then is the intent of that condition to account for cumulative impacts?

A. No. It's just to get a sensible reading of what the background level is.

MS. EDWARDS: No further questions. Thank you.

CHAIRMAN HANSON: I simply need to ask a question of did I hear correctly --

I think it was your first question when you asked Mr. Hessler, Do you recommend a dBA -- did you say 45 or 40? I'm not sure what I heard.

MS. EDWARDS: My question was whether or not he

maintained his 45 dBA regulatory limit.

CHAIRMAN HANSON: Okay. Thank you.

COMMISSIONER FIEGEN: Off the record.

(Discussion off the record.)

MS. CREMER: Okay. Clearly that was redirect by -- redirect by Staff. I keep losing my spot here.

So we will go to recross but only as to Commission questions and redirect.

So Crowned Ridge.

MR. MURPHY: No questions.

MS. CREMER: Mr. Swanson.

MR. SWANSON: Nothing further.

MS. CREMER: Ms. Christenson.

MS. CHRISTENSON: No questions.

MS. CREMER: Mr. Robish.

MR. ROBISH: No questions.

MS. CREMER: All right. Thank you, Mr. Hessler. You may step down.

THE WITNESS: You're welcome.

(The witness is excused.)

(Discussion off the record.)

MS. CREMER: So we will be in recess until 8:30 tomorrow morning. Thank you.

(The hearing is in recess at 5:12 p.m.)

STATE OF SOUTH DAKOTA)

:SS CERTIFICATE

COUNTY OF SULLY)

I, CHERI MCCOMSEY WITTLER, a Registered Professional Reporter, Certified Realtime Reporter and Notary Public in and for the State of South Dakota:

DO HEREBY CERTIFY that as the duly-appointed shorthand reporter, I took in shorthand the proceedings had in the above-entitled matter on the 5th day of February, 2020, and that the attached is a true and correct transcription of the proceedings so taken.

Dated at Onida, South Dakota this 25th day of February, 2020.

/s/ Cheri McComsey Wittler
Cheri McComsey Wittler,
Notary Public and
Registered Professional Reporter
Certified Realtime Reporter

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$200,000 [1] - 474:4
$275,000 [2] - 456:23, 491:19
$350,000 [1] - 456:19
$530,000 [2] - 474:8, 474:10

'

'16 [1] - 426:2
'17 [1] - 426:3
'97 [1] - 348:19
'99 [1] - 424:12

/

/s [1] - 522:17

0

0 [4] - 308:20, 516:16, 517:10, 518:6
0.2 [1] - 391:24
0.5 [2] - 269:7, 504:4

1

1 [29] - 257:3, 260:13, 261:3, 261:4, 261:7, 261:7, 261:8, 261:8, 261:9, 360:6, 364:16, 374:23, 377:20, 390:13, 416:10, 416:14, 416:15, 418:11, 504:20, 505:7, 509:23, 516:13, 516:17, 516:23, 517:5, 517:11, 517:14
1,000 [6] - 303:18, 304:4, 304:13, 304:17, 435:18, 506:22
1,200 [1] - 326:14
1,238 [1] - 326:11
1,500 [2] - 304:24, 465:24
1,700 [4] - 272:21, 336:13, 371:12, 372:21
1,976 [1] - 506:16
1-1 [1] - 261:8
1-26 [1] - 414:7
1-26-19 [1] - 414:9
1-4 [1] - 261:9
1.1 [2] - 366:9, 366:22
1.27 [1] - 384:13
10 [24] - 287:22, 287:23, 292:20, 298:11, 298:13, 308:23, 309:4, 310:15, 320:22, 332:5, 334:2, 341:3, 346:22, 382:18, 383:24, 383:25, 463:24, 470:15, 488:3, 488:23, 497:19, 504:14
10-meter-by-10-meter [1] - 289:22
100 [9] - 259:4, 265:22, 274:14, 334:20, 361:1, 387:14, 387:19, 427:23, 507:9
100s [1] - 328:20
104 [1] - 253:7
105 [1] - 253:8
10:00 [1] - 316:8
10:15 [1] - 320:23
10th [1] - 323:7
11 [3] - 332:6, 416:4, 418:11
11.3 [1] - 386:20
11.3.1.3.1 [1] - 386:23
111 [1] - 253:10
113 [1] - 253:10
114 [1] - 253:11
12 [4] - 270:4, 347:3, 378:7, 487:22
126 [1] - 253:11
128 [1] - 253:12
13 [6] - 276:2, 348:14, 469:22, 477:18, 477:19, 482:17
131 [1] - 253:14
134 [1] - 276:1
135 [2] - 389:13, 389:16
136 [1] - 253:14
14 [3] - 257:3, 259:11, 416:25
140 [1] - 253:15
146 [1] - 253:15
15 [7] - 301:20, 334:21, 417:1, 456:2, 475:3, 477:15, 485:22
150 [1] - 253:16
150,000 [1] - 471:23
152 [1] - 253:16
157 [2] - 296:11, 296:13
157th [1] - 284:5
16 [8] - 375:23, 455:17, 455:18, 456:2, 460:22, 477:19, 478:10, 482:17
163rd [1] - 284:5
17 [3] - 264:14, 264:15, 264:16
170 [1] - 253:18
17192 [1] - 439:13
171st [2] - 383:18, 383:21
173 [1] - 253:19
17539 [1] - 424:4
18 [2] - 260:22, 487:22
186 [1] - 508:11
19 [3] - 273:21, 273:24, 475:3
19-003 [1] - 285:9
194 [1] - 253:19
196 [1] - 253:20
1973 [1] - 392:12
1990s [1] - 348:19
1999 [2] - 348:20, 429:4

2

2 [33] - 260:13, 264:16, 273:7, 273:11, 273:21, 291:12, 291:14, 293:20, 293:23, 297:20, 297:25, 318:8, 318:10, 319:3, 319:4, 319:6, 319:8, 353:17, 442:14, 501:4, 505:8, 510:6, 510:16, 510:18, 513:7, 516:14, 516:23, 517:5, 517:11, 517:14, 517:15
2,200 [1] - 506:17
2,211 [2] - 427:22, 428:8
2-10 [1] - 261:7
2-15 [1] - 260:12
2-16 [1] - 261:8
2-2 [1] - 261:7
2.1 [3] - 298:8, 298:25, 299:6
2.1-116-80 [1] - 259:11
2.3-116-90m [1] - 259:11
20 [24] - 264:14, 265:20, 266:3, 273:6, 285:10, 303:22, 303:24, 304:6, 312:1, 312:2, 312:13, 312:16, 313:4, 322:14, 325:7, 333:23, 343:20, 345:3, 361:10, 363:25, 376:9, 397:18, 475:2, 476:24
200 [7] - 259:3, 259:8, 259:9, 274:13, 275:14, 308:15, 427:23
200,000 [1] - 471:24
2000 [1] - 304:24
2001 [1] - 376:5
2002 [3] - 348:14, 364:3, 364:5
2003 [1] - 376:5
2007 [1] - 390:7
2008 [1] - 488:12
201 [1] - 253:20
2010 [3] - 346:10, 350:19, 390:23
2011 [10] - 320:11, 346:2, 346:10, 347:17, 347:18, 365:14, 500:2, 500:17, 507:13, 508:5
2012 [2] - 345:21, 507:16
2013 [4] - 326:5, 326:11, 326:15, 474:15
2014 [1] - 390:25
2016 [4] - 326:16, 333:12, 357:9, 467:9
2016-01C [1] - 260:4
2017 [3] - 382:16, 382:23, 383:7
2018 [8] - 326:16, 382:23, 455:12, 460:8, 466:25, 474:6, 477:22, 478:1
2019 [11] - 302:2, 322:14, 334:9, 347:3, 376:7, 376:10, 393:13, 467:2, 467:9, 473:17
2020 [8] - 251:8, 252:4, 302:3, 334:11, 376:11, 454:22, 522:11, 522:14
21 [1] - 376:7
213 [2] - 251:25, 253:21
215 [1] - 254:4
22 [6] - 274:3, 392:12, 393:16, 499:1, 499:5, 499:10
22-10 [1] - 419:10
220 [1] - 254:4
227 [1] - 254:5
23 [8] - 273:22, 273:24, 303:7, 390:24, 390:25, 392:12, 393:16, 454:22
230 [1] - 474:2
24 [1] - 412:19
24-7 [1] - 436:20
243 [1] - 254:5
25 [8] - 285:10, 285:16, 397:18, 412:19, 436:24, 467:23, 470:21, 476:24
25-year [1] - 403:18
250 [2] - 505:9, 506:11
251-522 [1] - 251:9
25th [1] - 522:13
26 [7] - 266:13, 295:17, 295:21, 390:7, 475:2, 496:4, 514:12
262 [1] - 254:6
263 [1] - 254:6
275 [1] - 254:7
277 [1] - 254:7
28 [1] - 334:9
283 [1] - 254:8
29 [2] - 253:4, 431:7
292 [1] - 254:8
294 [1] - 254:9

3

3 [27] - 264:19, 265:1, 266:11, 285:12, 287:20, 297:24, 297:25, 298:7, 303:6, 306:5, 308:20, 309:4, 309:17, 377:21, 399:24, 416:10, 416:14, 416:15, 418:11, 425:5, 425:11, 497:19, 501:4, 510:6, 510:21, 513:7, 517:10
3,900 [1] - 427:24
3-0 [1] - 422:4
3-2 [1] - 261:3
3-8 [1] - 261:4
3.1 [1] - 387:2
30 [49] - 263:11, 263:13, 265:2, 266:13, 266:15, 266:17, 266:18, 267:12, 274:7, 287:17, 287:23, 311:3, 311:5, 311:7, 312:16, 312:17,

329:12, 330:7, 334:25, 348:11, 349:20, 349:22, 350:10, 350:14, 350:25, 351:22, 353:4, 353:24, 354:11, 355:3, 359:9, 359:13, 359:25, 360:3, 360:4, 360:15, 360:23, 362:14, 362:18, 363:8, 367:7, 370:16, 370:18, 393:25, 444:14, 467:6, 473:17, 473:22, 504:15
30-hour [6] - 274:1, 280:6, 341:7, 341:15, 364:3, 367:4
30-hour-per-year [1] - 347:5
30-minute [2] - 364:3, 367:4
30-year [1] - 369:7
300 [3] - 265:11, 274:1, 485:8
300-megawatt [1] - 274:13
301 [1] - 254:11
302 [1] - 254:11
313 [1] - 254:12
315 [1] - 254:12
316 [1] - 254:13
32 [7] - 253:4, 264:18, 264:19, 274:3, 298:19, 431:7
320,000 [2] - 485:9, 485:19
321 [1] - 254:15
324 [1] - 254:15
326 [1] - 254:16
333 [1] - 254:18
337 [1] - 254:18
35 [4] - 267:4, 267:12, 311:4, 311:7
355 [1] - 254:19
36 [2] - 428:8, 431:7
367 [1] - 254:19
369 [1] - 254:20
371 [1] - 254:20
375 [1] - 255:4
378 [1] - 255:4
38 [1] - 265:20
388 [1] - 255:5
395 [1] - 255:5
3:15 [1] - 446:6

4

4 [8] - 285:5, 412:19, 415:23, 416:25, 418:10, 425:5, 499:1, 499:5
4.2 [2] - 352:6, 362:5
40 [37] - 266:13, 266:15, 266:17, 266:18, 266:25, 287:17, 287:23, 288:1, 308:13, 308:16, 308:17, 309:7, 309:15, 309:16, 311:5, 312:17, 351:17, 499:3, 499:18, 500:22, 501:1, 501:18, 502:14, 502:18, 507:8, 509:13, 510:12, 510:22, 510:25, 513:6, 513:7, 513:8, 513:9, 513:13, 520:24
40.5 [1] - 442:17
407 [1] - 255:7
42 [2] - 266:25, 503:7
42-by-75 [1] - 429:7
42.5 [1] - 442:17
423 [1] - 255:11
429 [1] - 255:11
43 [3] - 288:2, 503:7, 513:8
43-ish [1] - 510:22
430 [1] - 255:12
431 [1] - 255:12
439 [1] - 255:14
44 [2] - 308:16, 513:8
44.5 [4] - 308:11, 308:13, 308:17, 309:7
442 [1] - 255:15
446 [1] - 255:17
45 [24] - 266:25, 267:4, 290:22, 298:18, 298:20, 299:7, 335:1, 351:17, 368:24, 369:8, 369:17, 374:9, 419:6, 419:7, 444:15, 500:19, 501:1, 501:5, 513:8, 513:11, 519:12, 520:24, 521:1
450 [1] - 255:17
452 [1] - 255:21
459 [1] - 255:21
46 [2] - 253:5, 327:20
463 [1] - 255:22
468th [1] - 424:4
469 [1] - 255:22
469th [1] - 439:13
4820 [1] - 452:13
489 [1] - 255:23
490 [1] - 255:23
494 [1] - 256:4
497 [1] - 256:4

5

5 [18] - 251:8, 276:2, 383:24, 389:13, 389:16, 389:21, 390:23, 416:8, 416:13, 418:11, 503:20, 503:21, 503:22, 504:6, 516:17, 517:10, 517:23, 518:4
5-ish [1] - 493:23
50 [7] - 272:8, 299:7, 335:3, 351:16, 392:5, 513:13, 513:14
508 [1] - 256:5
5096 [1] - 494:11
511 [1] - 256:5
514 [1] - 256:6
518 [1] - 256:6
523 [1] - 252:3
53 [1] - 390:18
533 [1] - 384:1
534 [1] - 256:8
537 [1] - 256:9
539 [1] - 256:11
542 [1] - 256:11
549 [1] - 256:12
550 [1] - 256:14
560 [1] - 256:14
58 [3] - 386:24, 440:7, 441:7
580 [2] - 256:15, 383:25
590 [2] - 383:17, 383:25
5:12 [1] - 521:24
5th [3] - 252:4, 452:13, 522:10

6

6 [18] - 260:22, 264:16, 273:11, 276:1, 287:18, 308:22, 309:4, 349:11, 364:10, 364:23, 415:24, 467:10, 470:6, 470:22, 473:15, 473:21, 475:8
6.26 [1] - 470:23
60 [10] - 312:1, 312:2, 312:14, 360:14, 362:16, 363:8, 363:13, 363:16, 440:8, 441:7
60,000 [2] - 366:4, 366:19
600 [1] - 399:24
608 [1] - 256:15
616 [1] - 256:16
63 [1] - 296:10
64 [1] - 383:17
68 [2] - 296:11, 296:12

7

7 [7] - 351:25, 352:4, 352:6, 352:16, 352:21, 364:23, 415:24
7(c [1] - 390:14
700 [1] - 465:24
72 [1] - 276:2
73 [1] - 253:5
74 [1] - 253:6
77 [6] - 264:18, 265:1, 265:4, 275:7, 276:2, 276:8
79-page [1] - 500:6

8

8 [8] - 266:3, 302:3, 334:11, 346:22, 376:11, 416:3, 418:10, 452:13
80 [3] - 282:22, 288:1, 505:16
800 [4] - 366:20, 382:7, 382:9, 465:24
80s [1] - 328:8
81 [1] - 253:6
85 [1] - 331:8
8:30 [3] - 251:8, 252:5, 521:22

9

9 [4] - 302:2, 362:5, 376:7, 456:3
90 [3] - 282:22, 301:22, 505:17
90s [2] - 328:8, 328:20
94 [1] - 276:1
95 [2] - 392:7, 399:18
9613-2 [2] - 283:2, 503:25
97 [1] - 276:1
98 [3] - 253:7, 505:7, 516:11

A

A.J [3] - 251:18, 431:25, 516:9
A.J.'s [1] - 273:15
a.m [2] - 251:8, 252:5
A1 [1] - 257:3
A1-A [1] - 257:3
A1-B [7] - 257:4, 389:8, 389:10, 389:12, 389:13, 389:18, 389:19
A1-C [1] - 257:5
A1-D [1] - 257:5
A1-E [1] - 257:6
A1-F [1] - 257:6
A1-G [1] - 257:7
A1-H [1] - 257:8
A1-I [1] - 257:8
A1-J [1] - 257:9
A1-K [1] - 257:9
A1-L [1] - 257:10
A1-M [1] - 257:10
A1-N [1] - 257:11
A1-O [1] - 257:11
A10 [1] - 257:21
A11 [1] - 257:22
A12 [4] - 257:23, 334:9, 340:19, 345:13
A12-1 [2] - 257:23, 334:9
A12-10 [5] - 258:14, 362:25, 363:1, 363:20, 370:25
A12-11 [1] - 258:16
A12-12 [1] - 258:17
A12-13 [1] - 258:18
A12-14 [1] - 258:19
A12-15 [1] - 258:20
A12-16 [5] - 258:21, 334:10, 346:14, 348:13, 348:24
A12-2 [1] - 258:3
A12-3 [1] - 258:4
A12-4 [1] - 258:5
A12-5 [1] - 258:7
A12-6 [1] - 258:8
A12-7 [1] - 258:10
A12-8 [1] - 258:12
A12-9 [1] - 258:13
A13 [1] - 258:22
A13-1 [1] - 258:23
A13-2 [1] - 259:3
A13-3 [1] - 259:4
A14 [3] - 259:5, 273:13, 273:14
A14-1 [2] - 259:6,

294:25
A14-2 [1] - 259:7
A14-3 [1] - 259:8
A14-4 [1] - 259:9
A15 [1] - 259:12
A16 [1] - 259:12
A16-1 [1] - 259:13
A17 [2] - 259:13, 322:14
A17-1 [2] - 259:14, 322:14
A17-2 [1] - 259:14
A17-3 [1] - 259:15
A17-4 [1] - 259:15
A17-5 [1] - 259:17
A17-6 [1] - 259:18
A17-7 [1] - 259:19
A17-8 [1] - 322:15
A18 [2] - 259:20, 376:10
A18-1 [2] - 259:21, 376:10
A18-2 [2] - 259:23, 376:10
A19 [1] - 260:3
A19-1 [1] - 260:3
A19-2 [1] - 260:4
A19-3 [1] - 260:4
A19-4 [1] - 260:5
A2 [1] - 257:12
A20 [2] - 260:6, 334:11
A21 [1] - 260:6
A21-1 [1] - 260:7
A21-2 [1] - 260:8
A21-3 [1] - 260:9
A22 [1] - 260:10
A23 [2] - 260:10, 302:4
A24 [3] - 260:11, 376:12, 385:14
A25 [1] - 260:11
A26 [1] - 260:12
A27 [2] - 260:12, 440:12
A27-1 [1] - 260:13
A27-2 [3] - 260:13, 378:23, 440:12
A3 [2] - 257:12, 376:8
A4 [1] - 257:13
A4-1 [1] - 257:13
A5 [1] - 257:14
A5-1 [1] - 257:14
A6 [1] - 257:15
A6-1 [1] - 257:15
A6-2 [1] - 257:16
A7 [4] - 257:16, 302:2, 303:6, 306:5
A7-1 [2] - 257:17, 302:2
A7-2 [1] - 257:17
A7-3 [2] - 257:18, 302:3
A8 [1] - 257:19
A9 [1] - 257:20
abandoned [2] - 365:12, 509:3
ability [8] - 335:13, 339:10, 373:4, 421:6, 423:13, 451:9, 466:3, 480:5
able [19] - 271:2, 293:10, 295:9, 304:4, 347:11, 356:14, 358:13, 411:10, 419:11, 460:15, 464:4, 466:4, 466:8, 469:22, 475:20, 475:23, 489:8, 502:17, 515:14
abounding [1] - 379:17
above-entitled [2] - 252:2, 522:10
absence [1] - 330:1
absolute [1] - 419:8
absolutely [3] - 263:18, 408:21, 446:5
absorb [3] - 268:1, 268:23, 268:24
absorbant [1] - 281:23
absorbed [2] - 282:25, 516:25
absorbing [4] - 268:4, 268:9, 282:2, 288:6
absorbs [2] - 267:24, 268:18
absorption [11] - 282:9, 282:19, 283:8, 288:4, 505:5, 505:8, 505:12, 516:22, 516:24, 517:19, 518:12
absorptive [3] - 288:10, 504:9, 504:18
AC-1 [1] - 260:21
AC-10 [1] - 261:6
AC-11 [1] - 261:7
AC-12 [1] - 261:7
AC-13 [1] - 261:8
AC-14 [1] - 261:8
AC-15 [1] - 261:9
AC-2 [1] - 260:22
AC-3 [1] - 260:23
AC-4 [1] - 260:23
AC-5 [1] - 261:3
AC-6 [1] - 261:3
AC-7 [1] - 261:4
AC-8 [1] - 261:4
AC-9 [1] - 261:5
accept [2] - 278:12, 411:1
accepting [1] - 340:5
access [2] - 311:18, 312:8
accessory [1] - 290:22
accommodating [2] - 468:18, 502:17
accompanies [1] - 347:8
accordance [1] - 390:13
according [5] - 314:16, 364:7, 392:22, 398:8, 510:22
accordingly [1] - 422:10
account [3] - 371:5, 380:10, 520:15
Account [1] - 258:11
accounted [1] - 319:7
accumulative [1] - 285:22
accurate [5] - 269:13, 295:4, 315:22, 499:8, 519:4
accurately [1] - 515:17
acknowledge [2] - 462:2, 484:7
acoustic [1] - 377:18
Acoustic [1] - 257:5
acoustical [6] - 285:16, 286:10, 305:15, 367:22, 494:14, 494:19
acoustics [3] - 301:8, 301:12, 513:18
acquisition [1] - 448:25
acreages [4] - 473:25, 482:22, 483:12, 484:1
act [1] - 459:15
Act [2] - 377:2, 390:14
actigraphy [1] - 327:15
activity [2] - 310:4, 434:22
actors [1] - 496:25
actual [15] - 267:6, 295:22, 348:11, 349:15, 350:11, 351:23, 353:14, 354:4, 354:25, 356:18, 358:2, 359:14, 363:25, 510:24, 511:14
actuals [1] - 296:2
Adam [4] - 251:14, 425:18, 426:7, 426:9
add [10] - 280:2, 319:8, 427:14, 439:23, 487:24, 493:11, 500:21, 505:5, 509:18, 511:3
added [3] - 287:25, 490:21, 514:21
adding [3] - 298:15, 492:9, 510:10
addition [5] - 334:1, 336:22, 401:2, 424:18, 492:6
additional [9] - 326:22, 401:18, 403:17, 403:20, 427:6, 457:18, 458:15, 458:22, 478:8
additionally [2] - 385:17, 393:14
additions [5] - 425:7, 439:21, 454:1, 455:1, 495:14
address [9] - 274:15, 322:1, 388:14, 409:15, 424:3, 452:12, 468:3, 494:9, 494:10
addressed [3] - 327:4, 329:21, 329:25
addresses [1] - 464:3
addressing [1] - 395:1
adds [1] - 510:16
adequacy [1] - 502:6
adequate [1] - 445:14
adequately [1] - 417:10
adhere [1] - 376:22
adjacent [2] - 386:18, 434:23
adjunct [1] - 333:25
adjust [1] - 320:19
Adjustment [2] - 412:21, 433:11
administered [8] - 300:25, 321:16, 333:1, 375:4, 423:22, 439:6, 452:7, 494:5
admissible [2] - 410:7, 414:10
admit [1] - 471:8
admitted [1] - 414:12
adopt [3] - 350:13, 350:24, 351:19
adopted [11] - 348:7, 348:20, 350:6, 350:10, 351:12, 351:14, 353:23, 354:10, 355:3, 370:14, 397:4
adopting [2] - 350:22, 359:13
adoption [2] - 302:13, 355:5
adult [2] - 377:16, 411:9
advantage [1] - 498:8
adverse [7] - 323:4, 324:17, 368:19, 412:22, 443:10, 451:11, 470:7
adversely [1] - 443:1
advice [3] - 301:15, 425:16, 438:12
advised [4] - 410:4, 417:7, 417:16, 501:7
advising [2] - 418:21, 502:1
advisor [2] - 438:16, 452:18
aerial [8] - 407:17, 407:19, 408:1, 408:4, 408:20, 461:13, 464:5, 464:8
aerials [1] - 491:10
affect [6] - 328:25, 345:6, 421:4, 435:8, 480:23, 491:7
affected [7] - 265:18, 286:2, 292:21, 299:1, 457:15, 491:2, 506:9
affects [1] - 475:7
Affidavit [14] - 257:21, 260:16, 260:17, 260:18, 260:18, 412:15, 413:16, 413:17, 415:14, 416:8, 418:10, 425:10, 430:13, 441:10
affidavits [4] - 410:2, 410:10, 410:14, 411:1
Affidavits [1] - 257:22
afford [1] - 287:13
afternoon [6] - 378:20, 378:21, 396:21, 396:22, 469:12, 469:13
age [1] - 411:9
agencies [5] - 377:4, 377:9, 393:10, 402:21, 463:9
Agency [1] - 257:4

agency [4] - 343:12, 389:20, 393:8, 412:20
agent [5] - 426:9, 438:6, 438:9, 438:11, 438:18
Aggregate [1] - 258:9
aggressively [3] - 497:22, 498:24, 506:25
ago [4] - 314:22, 347:15, 459:7, 508:9
agree [24] - 279:1, 283:1, 284:9, 306:12, 349:24, 372:1, 388:6, 388:12, 388:13, 392:1, 398:4, 402:2, 404:2, 404:6, 412:25, 414:7, 414:18, 415:7, 415:10, 423:16, 445:9, 486:18, 506:23, 516:2
agreed [4] - 411:17, 478:25, 503:3, 511:8
agreement [19] - 302:15, 415:6, 415:24, 438:13, 447:3, 447:17, 447:23, 448:11, 448:15, 449:15, 449:16, 449:17, 449:19, 449:20, 449:21, 449:23, 451:1, 517:21, 517:23
Agreement [2] - 258:23, 260:16
agreements [9] - 444:8, 444:16, 446:20, 446:24, 448:20, 449:7, 449:11, 449:12, 450:2
agrees [1] - 279:20
agricultural [1] - 478:2
agriculture [1] - 393:1
ahead [3] - 313:20, 450:14, 463:15
ahold [1] - 457:6
AIG [1] - 453:3
AIG-RR [1] - 453:3
AIGR [1] - 453:2
AIGR-SS [1] - 453:2
air [12] - 288:23, 306:21, 307:7, 307:17, 308:3, 314:16, 314:18, 356:12, 432:10, 434:20, 444:14, 516:25
aircraft [1] - 399:5
airplanes [1] - 328:7
al [1] - 393:4
Al [2] - 292:10, 511:23
albeit [1] - 342:1
align [1] - 335:3
Allen [1] - 251:21
allow [4] - 310:8, 354:3, 386:21, 416:20
allowed [3] - 414:10, 437:2, 443:16
allows [1] - 504:12
alluded [1] - 520:4
almost [7] - 344:12, 382:18, 398:15, 428:1, 510:21, 513:13, 516:20
Alt [3] - 264:19, 265:1, 276:2
alternate [8] - 274:9, 275:8, 276:1, 276:7, 276:8, 497:1, 498:22, 502:24
Alternate [1] - 260:5
alternates [5] - 276:2, 276:4, 496:22, 497:4, 515:25
alternative [1] - 275:14
alternatives [1] - 274:15
Amanda [1] - 251:23
amazing [1] - 469:23
amber [1] - 512:10
Amber [1] - 251:20
ambient [5] - 266:14, 267:10, 311:25, 371:5, 371:16
amenable [1] - 444:15
amended [1] - 390:14
Amendment [1] - 412:3
amendment [1] - 412:4
America [1] - 400:2
American [2] - 411:25, 412:3
amount [13] - 265:13, 271:19, 318:15, 343:10, 359:18, 360:5, 360:21, 408:11, 435:3, 435:10, 435:11, 477:24, 489:7
AMY [2] - 255:13, 439:11
Amy [6] - 260:18, 439:5, 439:11, 439:12, 439:15, 442:22
analyses [1] - 376:19
analysis [23] - 269:2, 269:3, 327:18, 328:10, 357:24, 452:20, 454:3, 454:9, 455:19, 455:20, 455:22, 456:1, 457:21, 459:21, 460:11, 462:10, 462:14, 462:17, 462:20, 470:11, 489:10, 489:18, 490:24
Analysis [2] - 259:13, 260:21
analyze [1] - 466:5
analyzed [1] - 495:1
AND [1] - 251:5
Andrew [1] - 333:6
anecdotally [1] - 482:20
animals [3] - 358:21, 385:8, 385:12
Annoyance [4] - 258:7, 258:9, 258:14, 336:11
annoyance [43] - 299:24, 300:3, 300:10, 323:12, 324:6, 324:8, 324:11, 324:13, 329:18, 335:7, 335:10, 335:11, 335:17, 335:19, 335:23, 336:6, 336:15, 336:19, 337:1, 341:22, 342:13, 342:18, 342:21, 355:14, 359:15, 360:2, 360:5, 360:19, 360:24, 363:22, 365:23, 368:15, 371:1, 371:10, 372:7, 372:24, 372:25, 373:4, 373:12, 374:4, 374:11, 499:3, 499:18
annoyed [14] - 278:20, 305:24, 323:14, 335:21, 342:16, 366:1, 368:14, 372:2, 372:14, 372:16, 372:17, 372:18, 374:1
annoying [4] - 323:3, 329:16, 330:3, 330:9
annual [2] - 274:2, 451:4
annually [1] - 394:9
ANSI [2] - 316:25, 317:7
answer [37] - 269:21, 275:11, 275:12, 283:12, 285:17, 300:6, 311:6, 313:24, 319:13, 320:12, 354:21, 357:5, 358:21, 364:23, 366:2, 381:1, 384:8, 400:17, 418:13, 434:8, 444:21, 445:7, 445:8, 450:22, 450:24, 472:5, 477:5, 480:2, 480:4, 480:16, 481:4, 482:2, 488:23, 492:14, 492:21, 514:8
answered [7] - 444:21, 445:4, 445:11, 445:19, 450:5, 458:7, 518:22
answering [3] - 319:12, 474:16, 488:20
answers [9] - 316:11, 317:15, 402:19, 415:20, 427:25, 454:12, 484:20, 492:1, 495:18
anthropology [1] - 376:4
anticipated [2] - 397:10, 479:13
anyway [4] - 286:11, 446:2, 487:21, 517:25
apart [3] - 287:8, 341:19, 515:10
Apex [1] - 334:5
apologize [8] - 352:9, 355:21, 358:25, 362:2, 390:24, 405:25, 476:22, 519:18
appealing [1] - 327:8
appear [1] - 271:19
appearance [2] - 424:22, 439:15
appeared [3] - 269:23, 359:5, 489:24
appearing [6] - 251:17, 251:19, 251:20, 251:22, 251:23, 357:10
Appendix [15] - 257:3, 257:4, 257:5, 257:5, 257:6, 257:6, 257:7, 257:8, 257:8, 257:9, 257:9, 257:10, 257:10, 257:11, 257:11
applaud [1] - 420:3
apples [4] - 291:2, 291:5
apples-to-apples [2] - 291:2, 291:5
applicable [2] - 296:5, 504:5
Applicant [12] - 347:4, 409:16, 414:7, 434:17, 495:4, 498:19, 502:16, 503:2, 509:16, 515:24, 516:1, 518:4
Applicant's [7] - 260:23, 261:3, 261:4, 261:5, 261:8, 416:19, 495:5
APPLICANT'S [7] - 253:2, 254:2, 255:2, 257:2, 258:2, 259:2, 260:2
application [4] - 407:17, 407:20, 408:4, 502:21
Application [29] - 257:3, 257:20, 260:17, 262:3, 281:9, 290:21, 375:19, 377:11, 380:21, 383:6, 383:19, 386:19, 386:24, 387:16, 387:18, 388:18, 389:3, 389:12, 391:15, 394:3, 395:10, 396:7, 396:15, 397:16, 397:20, 398:25, 400:9, 400:12, 427:4
APPLICATION [1] - 251:4
applicators [3] - 407:19, 408:2, 408:20
applied [2] - 291:17, 291:21
apply [1] - 457:25
appointed [1] - 522:8
apportioning [1] - 354:12
Appraisal [1] - 452:25

appraisal [16] - 453:10, 459:19, 459:21, 459:24, 460:5, 485:7, 485:8, 485:12, 485:18, 489:12, 490:19, 490:20, 490:23, 491:15, 491:24, 492:1
appraiser [5] - 452:16, 460:1, 460:5, 469:18, 480:3
appreciate [18] - 326:3, 330:12, 345:7, 406:17, 406:23, 420:2, 426:16, 427:17, 433:21, 437:3, 469:1, 478:12, 482:3, 482:11, 487:13, 487:17, 516:4, 518:15
appreciates [1] - 475:2
appreciating [1] - 432:5
appreciation [9] - 467:10, 470:22, 473:16, 473:21, 475:7, 475:11, 475:14, 475:17, 476:2
approach [7] - 269:24, 269:25, 270:5, 318:12, 328:18, 394:12, 408:7
approaches [1] - 498:9
approaching [1] - 507:8
appropriate [1] - 500:15
approve [1] - 412:22
approved [2] - 424:15, 514:13
approximate [2] - 491:21, 500:6
April [1] - 383:7
Aquatic [1] - 257:5
aquifers [1] - 387:19
Archaeological [1] - 259:21
archeology [2] - 376:4, 398:24
Architectural [1] - 259:23
area [74] - 266:15, 267:11, 283:25, 284:4, 284:7, 284:15, 284:21, 285:6, 295:10, 296:21, 310:3, 311:1, 311:12, 338:8, 338:16, 339:14, 356:22, 365:2, 379:2, 379:15, 379:20, 379:22, 379:24, 380:1, 380:12, 381:5, 381:7, 381:10, 382:1, 382:5, 382:7, 382:9, 386:18, 387:2, 387:10, 390:12, 390:16, 391:7, 391:9, 391:12, 391:25, 392:5, 392:12, 393:17, 401:21, 424:11, 429:15, 460:21, 460:25, 463:9, 463:13, 465:13, 472:1, 472:23, 473:7, 474:14, 477:16, 482:25, 483:12, 484:3, 484:12, 484:17, 488:2, 489:20, 492:6, 492:8, 492:11, 498:2, 498:10, 501:13, 506:3, 506:5, 517:3
areas [24] - 269:24, 278:6, 371:5, 371:6, 371:16, 379:17, 380:5, 380:6, 380:10, 380:17, 380:18, 380:22, 380:24, 382:4, 385:20, 386:8, 387:19, 402:25, 403:4, 418:16, 455:25, 466:10, 466:17, 506:3
argued [1] - 415:11
argument [2] - 373:13, 409:23
arguments [1] - 415:13
arise [1] - 500:25
Arkansas [1] - 399:2
arms [2] - 412:4, 475:1
arms-length [1] - 475:1
array [6] - 259:3, 379:1, 379:7, 381:1, 427:23
Array [1] - 259:22
arrayed [2] - 278:9, 278:18
arsonic [2] - 356:12, 356:19
article [5] - 302:25, 319:23, 353:17, 466:2, 500:6
aside [2] - 329:18, 510:23
aspect [1] - 513:17
aspects [6] - 306:6, 323:10, 375:24, 489:17, 489:19
assaulted [1] - 433:13
assembled [1] - 502:3
Assess [1] - 258:22
assessment [6] - 377:18, 388:20, 391:14, 391:16, 401:24
Assessment [3] - 257:6, 258:13, 259:24
assessments [4] - 301:21, 375:18, 377:16, 494:20
assigned [1] - 291:7
assistance [1] - 410:14
associate [3] - 293:10, 301:7, 301:11
associated [7] - 313:1, 322:2, 322:25, 327:5, 332:11, 332:12, 336:23
associates [1] - 301:6
Associates [3] - 301:11, 494:13, 494:17
association [2] - 453:6, 507:19
Association [1] - 258:8
assume [11] - 263:24, 269:8, 272:19, 278:2, 280:17, 298:23, 341:8, 353:17, 408:10, 408:14, 419:5
assumed [2] - 273:17, 381:17
assumes [2] - 264:6, 339:21
assuming [6] - 293:22, 318:17, 339:17, 460:5, 503:6, 516:15
assumption [1] - 307:4
assumptions [3] - 269:12, 485:7, 487:16
assuring [1] - 318:13
astronomical [2] - 353:24, 354:12
astronomically [1] - 353:6
atmosphere [1] - 271:9
atmospheric [3] - 503:10, 516:24, 517:18
attached [2] - 326:10, 522:11
Attachment [9] - 260:13, 260:13, 261:3, 261:4, 261:7, 261:7, 261:8, 261:8, 261:9
attachment [1] - 454:8
attempting [1] - 305:19
attempts [2] - 343:13, 398:16
attended [1] - 367:21
attention [6] - 295:15, 363:19, 424:20, 427:1, 453:19, 454:15
attenuation [11] - 269:7, 282:25, 283:8, 287:2, 288:17, 295:19, 295:21, 296:3, 296:4, 298:1, 504:1
attitude [4] - 335:14, 372:19, 373:6, 373:15
attitudes [2] - 323:9, 337:1
attorney [7] - 410:4, 410:22, 414:21, 430:11, 433:15, 480:15
attorney's [1] - 414:22
attributable [3] - 434:22, 475:18, 506:11
attributed [2] - 372:7, 473:23
audibility [5] - 303:24, 305:18, 305:19, 308:5, 317:7
Audible [1] - 258:10
audible [9] - 303:17, 304:2, 304:3, 304:10, 304:14, 307:15, 307:24, 329:4, 385:11
audio [1] - 434:19
author [2] - 303:2, 508:8
authority [3] - 383:13, 398:21, 412:22
authorize [1] - 419:6
authorized [2] - 398:25, 419:12
authorship [1] - 500:2
autistic [1] - 294:5
automatically [1] - 263:24
automobiles [2] - 353:10, 353:12
availability [1] - 484:2
available [5] - 391:17, 415:8, 443:21, 463:8, 482:10
Avangrid [1] - 334:6
Avenue [2] - 252:3, 439:13
avenue [1] - 424:4
avenues [1] - 421:11
average [2] - 336:15, 518:5
Avian [2] - 257:8, 383:6
avian [7] - 377:13, 377:14, 382:4, 382:16, 382:17, 394:4, 401:2
avoid [3] - 316:2, 378:10, 385:18
avoidance [2] - 377:9, 377:24
avoided [1] - 379:24
avoiding [2] - 378:4, 378:5
aware [14] - 279:19, 291:16, 292:2, 326:17, 327:1, 327:21, 349:3, 358:16, 386:16, 392:14, 399:15, 399:23, 399:25, 481:21
aye [3] - 421:24, 422:1, 422:3

B

B2004-01-23B [1] - 260:3
Bach [2] - 328:15, 328:16
bachelor [1] - 333:20
bachelor's [2] - 322:5, 376:3
Bachelor's [1] - 301:24
background [15] - 299:10, 309:25,

310:3, 310:6, 310:16, 310:17, 310:25, 311:10, 398:24, 452:22, 453:9, 515:8, 515:14, 520:8, 520:18
bad [2] - 286:4, 496:24
bank [2] - 485:18, 491:20
Base [1] - 258:21
base [1] - 347:4
baseball [1] - 469:11
Based [3] - 258:10, 376:24, 380:12
based [23] - 272:20, 274:17, 280:9, 281:15, 283:3, 290:21, 291:11, 293:18, 322:21, 337:25, 349:4, 353:16, 354:8, 354:11, 356:4, 370:4, 386:10, 451:13, 461:9, 483:16, 500:17, 506:19, 516:11
basins [1] - 378:3
basis [9] - 268:6, 281:8, 281:18, 308:14, 308:18, 353:6, 356:9, 419:9, 487:5
Bat [2] - 257:5, 257:6
bat [4] - 377:18, 420:4, 420:5
Baucom [1] - 251:15
Beacon [2] - 463:22, 464:4
bear [3] - 364:11, 412:4, 424:17
bears [1] - 471:5
beat [1] - 290:23
beautiful [1] - 289:8
became [2] - 481:21, 507:14
become [5] - 315:12, 315:16, 329:12, 361:18, 494:22
becomes [4] - 310:12, 315:15, 315:23, 315:24
becoming [1] - 350:18
BEFORE [1] - 251:10
Before-After [1] - 258:5
began [2] - 333:11, 348:15
begin [1] - 409:12
begins [3] - 349:15, 352:3, 416:14
behalf [11] - 251:17, 251:19, 251:23, 318:6, 359:11, 406:10, 406:13, 409:22, 427:2, 427:3, 438:6
behind [1] - 378:22
belief [2] - 369:17, 417:8
beliefs [1] - 411:21
bell [2] - 324:22, 388:10
belong [1] - 415:13
below [10] - 299:4, 299:7, 303:22, 304:6, 315:11, 318:24, 368:24, 387:14, 505:10, 513:9
belt [1] - 428:9
Bemis [1] - 431:4
benefit [1] - 373:8
benefits [1] - 323:10
Berkeley [3] - 336:3, 368:11, 372:12
beside [1] - 404:24
Best [3] - 345:21, 345:25, 346:6
best [15] - 332:4, 351:2, 351:8, 351:14, 351:21, 378:9, 433:25, 454:24, 480:4, 495:22, 500:9, 507:15, 517:21, 517:23, 519:4
bet [3] - 295:1, 436:9, 481:4
better [2] - 296:8, 366:15
between [20] - 266:13, 271:5, 271:25, 282:20, 284:11, 285:22, 288:18, 289:9, 289:12, 291:6, 299:14, 307:23, 309:5, 309:7, 359:24, 399:24, 461:7, 506:16, 513:8, 520:11
Between [1] - 258:8
beyond [22] - 272:14, 272:18, 285:18, 291:14, 292:5, 293:23, 303:24, 338:6, 349:21, 350:20, 360:25, 395:12, 397:22, 403:19, 403:24, 403:25, 404:1, 422:23, 432:23, 433:17, 443:13
bidding [1] - 477:8
big [8] - 270:19, 289:7, 338:4, 487:2, 517:1, 518:2, 518:3, 518:6
bigger [2] - 498:6, 512:4
biggest [2] - 263:14, 372:24
bioavailability [1] - 356:19
biological [1] - 405:15
biologists [2] - 382:6, 400:8
biology [1] - 333:20
bird [1] - 381:25
birds [4] - 381:9, 382:8, 382:12, 392:19
Bismarck [2] - 375:10, 400:24
bit [16] - 268:11, 270:21, 286:14, 303:3, 314:22, 379:11, 404:24, 414:14, 421:19, 425:15, 463:16, 496:20, 497:23, 505:11, 513:11, 518:14
BK [1] - 460:20
black [1] - 296:25
blackbirds [1] - 405:6
blade [5] - 271:15, 272:20, 358:13, 358:18, 366:9
blades [12] - 271:12, 277:4, 343:17, 358:3, 358:8, 358:9, 358:11, 358:20, 366:14, 509:20, 510:3, 510:6
blinking [1] - 372:17
block [3] - 271:17, 271:20, 271:24
blockage [1] - 278:14
blue [1] - 379:9
Board [3] - 412:21, 433:11, 509:8
body [2] - 342:12, 368:5
book [1] - 273:19
border [1] - 467:22
bordering [1] - 490:4
Boston [1] - 321:23
bother [1] - 477:14
bothered [2] - 307:1, 307:6
bothering [1] - 307:11
boughten [1] - 427:19
boundaries [5] - 306:11, 307:19, 320:8, 413:4
boundary [2] - 297:20, 520:11
brain [2] - 262:23, 286:16
break [5] - 281:7, 320:23, 361:22, 446:2, 446:5
BREF [1] - 258:13
Brian [1] - 251:17
brief [5] - 330:19, 415:12, 415:13, 421:19, 459:17
briefly [5] - 415:5, 452:21, 453:7, 455:8, 520:4
briefs [1] - 411:15
Brigham [2] - 321:22, 376:4
bright [1] - 270:18
bring [9] - 264:25, 271:22, 422:8, 423:7, 442:4, 474:17, 482:10, 490:7, 512:16
bringing [1] - 420:18
brings [2] - 469:3, 471:1
broad [1] - 411:3
broader [1] - 311:24
broker [3] - 469:19, 475:16, 486:19
brokers [7] - 457:11, 463:9, 479:21, 479:22, 480:10, 480:16, 483:10
Brookings [29] - 455:13, 460:21, 460:24, 461:12, 463:7, 463:17, 463:22, 464:11, 465:13, 466:19, 466:24, 467:18, 467:20, 467:21, 468:1, 473:24, 478:6, 482:15, 482:17, 482:18, 482:21, 482:22, 482:25, 483:19, 483:21, 484:3, 484:7, 484:8, 488:2
brother [1] - 411:18
brought [9] - 290:4, 331:13, 331:14, 462:13, 479:19, 479:22, 491:13, 492:5, 518:13
Brown [4] - 260:22, 365:5, 508:21, 519:6
buffalo [1] - 492:11
Buffalo [3] - 460:21, 460:24, 472:23
buffer [2] - 284:23, 284:24
build [6] - 275:13, 284:23, 287:9, 320:15, 381:2, 512:17
Building [1] - 252:3
building [5] - 278:22, 338:16, 359:2, 429:7, 429:10
buildings [3] - 278:5, 278:19, 287:11
built [9] - 274:10, 275:7, 276:8, 292:2, 335:16, 368:1, 492:8, 501:20, 514:22
bulb [4] - 263:8, 271:16, 271:20, 271:24
bulk [2] - 368:22, 424:24
bumping [1] - 316:8
bunch [1] - 363:5
burdening [1] - 361:6
business [8] - 301:3, 321:19, 333:4, 375:7, 426:8, 452:12, 452:24, 494:9
busy [1] - 343:18
button [1] - 446:14
buy [2] - 287:13, 481:1
buyer [13] - 456:21, 457:9, 462:11, 462:22, 471:13, 477:9, 480:18, 480:23, 481:8, 481:23, 484:11, 484:16, 486:25
buyers [11] - 470:25, 471:2, 476:13, 477:1, 477:3, 477:7, 483:7, 483:10, 483:14, 491:12, 493:3
buying [1] - 475:22
BY [37] - 251:4, 262:16, 275:5, 277:20, 283:19, 292:12, 294:23, 301:2, 302:23, 313:22, 315:7,

321:18, 324:2, 333:3, 337:13, 340:17, 355:20, 367:14, 369:24, 375:6, 378:19, 388:4, 423:24, 429:3, 430:24, 439:8, 446:12, 452:9, 459:6, 463:6, 489:5, 490:16, 494:7, 497:14, 508:17, 512:1, 518:21

C

calculate [1] - 272:14
calculating [4] - 289:24, 338:7, 504:1
calculation [2] - 272:17, 461:9
calculations [2] - 284:13, 284:25
calendar [5] - 349:20, 349:22, 353:5, 353:19, 354:25
calibrations [1] - 315:23
calm [1] - 313:7
Canada [21] - 326:13, 326:23, 327:4, 327:9, 327:18, 328:9, 331:14, 331:15, 332:3, 333:21, 333:23, 342:19, 350:12, 355:4, 359:22, 361:13, 368:7, 369:2, 373:2, 391:21, 399:4
canceled [2] - 456:21, 457:10
candid [1] - 330:5
cannot [4] - 396:6, 409:24, 430:6, 430:14
Capitol [1] - 252:3
captured [1] - 465:12
car [1] - 344:5
care [7] - 280:17, 405:10, 407:6, 428:3, 428:4, 428:5
careful [1] - 429:20
carried [2] - 326:4, 326:11
cars [3] - 279:8, 279:14, 345:9
cascade [1] - 369:3
cascading [2] - 363:10, 374:9
Case [1] - 259:9
case [49] - 259:10, 262:7, 271:7, 274:4, 276:21, 281:1, 293:20, 305:17, 307:10, 320:6, 322:1, 322:22, 346:25, 353:24, 354:12, 356:13, 375:1, 391:19, 392:1, 406:10, 406:25, 407:10, 412:1, 412:9, 412:10, 413:17, 419:13, 422:8, 427:8, 430:14, 443:12, 443:19, 444:9, 444:12, 447:19, 452:2, 459:7, 459:8, 459:13, 459:14, 481:10, 488:19, 497:16, 502:15, 502:19, 506:16, 519:10
cast [7] - 338:8, 339:16, 339:17, 343:3, 344:9, 344:25, 413:7
casting [2] - 344:14, 366:13
casts [1] - 342:8
catch [2] - 267:23, 297:13
category [2] - 308:19, 504:21
cathedral [1] - 289:7
cattle [5] - 490:4, 490:18, 491:5, 491:8, 491:13
caused [5] - 361:17, 365:19, 424:23, 439:16, 481:13
causing [1] - 373:4
cave [1] - 429:8
caveat [1] - 414:9
CD-2 [2] - 455:6, 456:12
cedar [1] - 429:10
ceiling [1] - 289:7
center [3] - 322:10, 383:22, 383:23
Center [1] - 252:3
central [1] - 501:14
certain [11] - 318:15, 327:6, 331:16, 402:7, 409:22, 425:5, 425:12, 427:6, 442:16, 470:2, 477:24
certainly [34] - 268:24, 270:2, 309:7, 324:16, 325:12, 327:3, 328:2, 328:8, 328:21, 329:14, 329:21, 330:2, 331:3, 355:10, 356:9, 357:3, 357:9, 359:5, 360:17, 361:23, 366:21, 369:14, 369:16, 373:17, 374:11, 395:23, 396:1, 403:16, 485:4, 498:8, 515:23, 516:4, 517:14, 518:3
certainty [1] - 310:20
CERTIFICATE [1] - 522:2
certified [2] - 452:15, 452:17
Certified [2] - 522:6, 522:19
CERTIFY [1] - 522:8
cetera [1] - 352:3
Chair [3] - 406:10, 431:11, 442:9
Chairman [9] - 281:22, 310:24, 325:24, 331:13, 396:20, 417:24, 421:25, 513:25, 514:6
CHAIRMAN [111] - 251:11, 251:11, 266:9, 266:11, 266:24, 267:7, 267:10, 267:13, 267:18, 267:21, 268:1, 268:5, 268:20, 269:1, 269:9, 269:15, 269:23, 270:7, 270:11, 271:1, 271:11, 271:21, 272:4, 272:23, 316:10, 316:15, 316:17, 317:15, 317:23, 318:5, 318:8, 318:19, 319:1, 319:12, 325:25, 326:2, 326:9, 326:17, 326:25, 327:21, 328:1, 328:11, 328:24, 329:6, 371:24, 372:1, 372:5, 373:13, 374:13, 396:21, 396:23, 396:25, 397:3, 397:8, 397:13, 397:17, 397:21, 397:25, 398:3, 398:10, 398:20, 399:1, 399:10, 399:14, 399:20, 399:25, 400:4, 400:15, 401:1, 401:10, 401:14, 402:1, 403:8, 403:15, 404:10, 404:18, 405:21, 406:19, 406:22, 417:25, 421:2, 421:10, 421:14, 422:1, 423:11, 423:18, 431:12, 432:15, 432:20, 433:5, 433:7, 433:17, 433:20, 442:10, 442:13, 442:20, 444:24, 469:11, 469:14, 469:25, 471:16, 474:24, 475:20, 476:5, 476:21, 476:23, 477:17, 478:12, 514:1, 520:20, 521:2
chairperson [1] - 469:8
challenge [3] - 315:25, 413:2, 419:9
challenged [2] - 419:4, 419:14
challenges [3] - 327:2, 327:23, 433:21
challenging [1] - 419:21
chance [7] - 347:12, 382:13, 403:13, 434:7, 459:17, 496:7, 496:14
Change [1] - 259:5
change [13] - 336:21, 344:22, 393:3, 398:4, 398:8, 401:8, 401:11, 403:13, 403:16, 421:5, 490:18, 503:12, 517:11
changed [6] - 276:19, 290:15, 392:16, 417:15, 466:11, 498:25
changes [14] - 291:16, 292:3, 302:6, 322:17, 333:14, 334:13, 364:17, 376:14, 401:1, 403:12, 425:7, 439:21, 519:15, 519:24
changing [1] - 342:2
chapter [1] - 419:10
characterization [1] - 267:2
characterize [3] - 342:18, 345:11, 365:25
chart [1] - 312:8
chat [1] - 433:23
check [3] - 346:1, 504:13
chemical [2] - 322:5, 356:7
Cheri [6] - 251:24, 331:22, 362:12, 432:4, 522:17, 522:18
CHERI [1] - 522:5
Chicago [1] - 322:10
chief [1] - 443:19
child [1] - 294:5
children [1] - 436:12
chose [2] - 430:13, 518:4
Chris [1] - 257:23
CHRIS [1] - 251:11
Christenson [32] - 251:20, 253:5, 253:7, 253:11, 253:15, 253:19, 254:5, 254:8, 254:12, 254:15, 254:19, 255:4, 255:11, 255:22, 255:23, 256:5, 256:15, 270:7, 283:15, 313:14, 323:25, 355:18, 378:17, 414:1, 429:1, 441:18, 452:1, 463:2, 490:13, 508:15, 519:1, 521:13
CHRISTENSON [32] - 283:16, 283:19, 292:8, 313:16, 313:18, 313:22, 314:25, 324:2, 325:16, 354:18, 355:20, 361:24, 367:9, 378:19, 381:21, 381:23, 384:4, 387:20, 429:3, 430:7, 430:15, 441:19, 441:24, 463:3,

463:6, 468:7, 490:14, 490:16, 493:8, 508:17, 511:18, 521:14
CHRISTENSON'S [2] - 260:20, 261:2
Christenson's [2] - 260:23, 389:8
Christopher [2] - 260:6, 333:6
CHRISTOPHER [1] - 254:17
circulate [1] - 423:15
circumstances [4] - 324:11, 425:16, 440:24, 505:1
cited [3] - 345:24, 346:5, 507:20
citizen [1] - 412:3
citizens [3] - 411:25, 412:8
city [4] - 373:23, 466:19, 467:17, 484:10
Civil [3] - 414:8, 414:11, 414:16
claim [1] - 410:24
claimed [1] - 510:8
clarification [1] - 275:3
clarified [2] - 285:11, 331:23
clarify [16] - 262:8, 262:11, 273:23, 330:20, 331:11, 332:2, 347:19, 351:5, 367:2, 388:12, 444:4, 444:5, 444:7, 459:23, 477:21, 483:4
clarifying [1] - 283:17
class [2] - 459:15, 498:14
Classification [2] - 323:6, 324:20
Clean [1] - 377:2
clean [2] - 423:12, 469:10
clear [8] - 270:17, 275:20, 276:14, 299:13, 327:24, 395:6, 406:18, 418:13
cleared [1] - 380:22
clearest [1] - 309:2
clearly [7] - 335:8, 366:3, 406:17, 409:23, 411:20, 418:17, 521:5
clever [1] - 514:9
client [1] - 445:25
clients [3] - 281:12, 308:9, 420:17
clients' [1] - 506:15
climate [4] - 392:25, 401:5, 403:13, 403:15
close [20] - 271:12, 279:11, 283:23, 310:7, 312:4, 312:6, 324:24, 344:24, 347:23, 366:10, 384:6, 413:15, 426:13, 440:5, 467:6, 467:22, 504:20, 506:20, 506:22, 520:10
closed [2] - 465:7, 491:23
closer [12] - 266:17, 267:8, 267:9, 271:22, 363:16, 379:12, 393:15, 472:25, 483:7, 493:23, 510:12
closest [12] - 283:24, 284:11, 297:21, 297:22, 305:13, 383:11, 383:17, 386:25, 392:11, 393:15, 506:15
closing [1] - 467:2
cloud [1] - 494:11
clue [2] - 364:9, 410:5
clustered [2] - 492:7, 492:12
co [1] - 303:2
Co [3] - 259:11, 260:3, 260:4
co-author [1] - 303:2
CO-S-1 [1] - 257:23
CO-S-10 [1] - 258:14
CO-S-11 [1] - 258:16
CO-S-12 [1] - 258:17
CO-S-13 [1] - 258:18
CO-S-14 [1] - 258:19
CO-S-15 [1] - 258:20
CO-S-16 [2] - 258:21, 345:14
CO-S-2 [1] - 258:3
CO-S-3 [1] - 258:4
CO-S-4 [1] - 258:5
CO-S-5 [1] - 258:7
CO-S-6 [1] - 258:8
CO-S-7 [1] - 258:10
CO-S-8 [1] - 258:12
CO-S-9 [1] - 258:13
coal [1] - 373:20
Coast [1] - 398:14
coauthored [2] - 316:17, 319:16
code [1] - 324:19
coded [1] - 323:4
codified [1] - 348:4
CODINGTON [1] - 251:5
Codington [7] - 259:6, 259:7, 259:11, 262:5, 291:18, 292:4, 350:9
coefficient [2] - 504:6, 504:20
coherent [1] - 418:6
coincident [1] - 289:13
cold [2] - 315:15, 316:1
colleagues [2] - 328:18, 336:5
collect [1] - 310:6
collected [1] - 314:8
College [1] - 301:24
college [1] - 333:23
color [3] - 296:23, 440:11, 519:18
Colorado [1] - 398:16
combination [6] - 280:14, 282:8, 282:20, 298:9, 378:2, 380:8
combine [3] - 298:4, 298:14, 315:21
combined [2] - 291:22, 291:25
combining [2] - 283:11, 309:18
comfort [2] - 506:21, 506:22
comfortable [2] - 363:14, 417:18
coming [18] - 263:14, 272:25, 278:2, 291:5, 296:7, 307:6, 310:10, 335:15, 338:19, 339:11, 358:18, 407:15, 431:22, 433:22, 442:11, 482:8, 482:11, 515:21
comma [1] - 374:15
commencing [1] - 252:5
comment [6] - 331:22, 415:11, 462:21, 462:23, 482:18, 488:1
commentary [1] - 448:3
comments [9] - 330:19, 413:15, 467:4, 467:11, 471:12, 473:14, 474:21, 483:11, 506:13
commercial [1] - 453:11
COMMISSION [3] - 251:1, 251:10, 251:13
commission [1] - 349:3
Commission [35] - 263:2, 296:2, 316:7, 335:25, 337:3, 354:10, 357:13, 359:20, 369:15, 394:14, 395:20, 396:4, 396:10, 406:16, 407:8, 411:13, 412:21, 414:9, 415:15, 418:21, 418:24, 421:22, 427:10, 443:16, 453:14, 480:9, 480:13, 490:8, 500:3, 500:9, 501:7, 501:17, 511:3, 518:18, 521:8
Commission's [1] - 363:19
Commissioner [54] - 253:6, 253:12, 253:16, 253:20, 254:6, 254:13, 254:16, 254:20, 255:5, 255:7, 255:12, 255:15, 255:17, 255:22, 256:6, 256:9, 256:11, 256:16, 263:3, 266:7, 272:24, 275:6, 371:21, 371:25, 384:4, 395:21, 396:2, 416:12, 417:22, 418:2, 420:14, 420:24, 420:25, 421:23, 422:2, 422:21, 431:17, 433:9, 433:13, 433:20, 434:3, 434:10, 437:25, 442:4, 442:7, 450:10, 450:13, 450:20, 451:13, 469:3, 469:5, 482:16, 492:17, 519:14
COMMISSIONER [152] - 251:12, 263:4, 263:17, 263:22, 264:8, 264:10, 264:12, 265:5, 265:8, 265:15, 265:24, 266:5, 272:25, 273:5, 273:9, 273:14, 273:17, 273:21, 274:8, 274:20, 275:17, 297:17, 297:23, 298:6, 298:21, 299:5, 299:11, 299:17, 299:20, 300:3, 300:8, 300:14, 317:22, 319:15, 319:19, 319:24, 320:9, 320:13, 320:20, 329:8, 329:10, 329:17, 330:12, 330:17, 331:1, 331:10, 331:20, 332:1, 332:16, 336:8, 340:11, 340:13, 371:22, 371:23, 395:22, 396:19, 397:2, 404:12, 407:14, 408:16, 408:25, 415:17, 416:7, 416:13, 416:23, 417:11, 417:20, 418:3, 418:5, 420:15, 420:22, 421:17, 421:24, 422:3, 422:25, 431:18, 431:21, 432:9, 432:12, 432:14, 432:18, 434:4, 434:13, 434:25, 435:6, 435:9, 435:15, 435:19, 435:21, 435:24, 436:3, 436:8, 436:9, 436:11, 436:15, 436:18, 436:21, 436:25, 437:3, 437:13, 437:16, 437:18, 437:21, 438:14, 438:17, 438:21, 440:16, 440:17, 442:6, 442:8, 450:7, 450:9, 450:12, 451:1, 451:7, 469:6, 478:16, 478:19, 478:24, 479:3, 479:11, 479:17, 482:3, 482:7,

482:20, 483:20, 483:23, 483:25, 484:5, 484:21, 485:6, 485:10, 485:16, 485:20, 486:16, 487:10, 487:13, 488:22, 489:1, 514:5, 514:10, 514:17, 514:24, 515:15, 515:19, 515:20, 516:4, 517:4, 517:9, 518:1, 518:10, 521:3
Commissioners [7] - 277:22, 295:20, 297:15, 310:13, 403:25, 507:19, 515:22
Commissioners' [1] - 262:13
commissions [3] - 357:11, 359:12
Commissions [1] - 443:15
commit [2] - 396:16, 406:11
commitment [14] - 395:6, 395:9, 395:14, 396:15, 397:7, 397:9, 404:16, 404:17, 405:18, 406:11, 406:13, 407:23, 408:1, 510:19
commitments [6] - 388:17, 389:2, 394:2, 394:8, 396:13, 400:13
committed [3] - 395:13, 395:16, 510:2
committee [1] - 349:1
committing [1] - 396:6
common [5] - 280:10, 350:3, 350:8, 350:12, 354:9
commonly [5] - 353:23, 355:3, 414:13, 456:1, 456:13
communicate [3] - 411:2, 411:4
communicated [1] - 478:9
communities [1] - 484:14
community [5] - 365:24, 366:1, 366:2, 373:9, 467:19
companies [1] - 408:13
company [12] - 301:3, 311:16, 321:19, 333:4, 375:7, 379:19, 385:4, 385:7, 385:10, 406:13, 469:19, 494:14
comparable [3] - 266:14, 318:21, 515:9
comparables [2] - 469:23, 477:18
compare [5] - 308:13, 309:5, 473:6, 474:20, 515:13
compared [3] - 455:24, 484:2, 496:23
comparing [1] - 308:16
comparison [5] - 291:3, 291:6, 336:12, 460:12, 504:16
compete [1] - 403:20
complaints [9] - 336:22, 367:23, 367:25, 499:4, 499:18, 500:25, 501:3, 513:7, 513:9
complete [4] - 326:3, 387:9, 456:8, 499:9
completed [26] - 311:20, 377:12, 382:3, 382:16, 382:18, 382:22, 383:7, 448:25, 455:13, 455:19, 455:20, 455:22, 457:17, 457:19, 463:15, 464:19, 466:5, 466:25, 490:23, 491:15, 491:20, 491:25, 500:18, 503:14
completely [3] - 271:23, 316:22, 397:4
completing [3] - 452:24, 472:10, 490:24
compliance [4] - 277:11, 281:10, 315:8, 448:13
comply [1] - 322:24
component [1] - 303:20
components [3] - 279:3, 304:10, 305:24
comprise [1] - 359:3
computers [1] - 315:24
concentrated [1] - 512:9
concept [2] - 346:16, 498:20
concern [9] - 305:12, 317:4, 317:14, 320:15, 329:21, 355:10, 357:14, 471:6, 498:19
concerned [5] - 281:10, 357:21, 374:10, 420:3, 439:25
concerning [3] - 385:5, 385:7, 385:10
concerns [5] - 322:24, 408:5, 418:22, 420:7, 470:18
concert [1] - 328:14
concerts [1] - 328:17
concluded [4] - 327:19, 336:15, 449:2, 500:13
concludes [1] - 378:12
conclusion [8] - 317:3, 416:11, 418:17, 421:20, 473:12, 479:12, 499:14, 499:16
conclusions [6] - 304:25, 316:20, 317:13, 472:9, 479:1, 500:14
condense [2] - 394:4, 394:7
Condition [4] - 295:17, 295:21, 496:4, 514:12
condition [22] - 296:1, 310:9, 310:12, 388:6, 388:13, 388:14, 389:4, 394:23, 395:2, 395:8, 395:11, 395:16, 396:8, 396:11, 404:8, 411:7, 426:22, 475:10, 475:11, 496:8, 511:3, 520:15
conditional [1] - 291:18
Conditional [4] - 257:9, 290:7, 292:1, 419:3
conditioner [3] - 306:21, 307:7, 307:17
conditioners [1] - 308:3
conditions [13] - 266:21, 275:23, 302:17, 312:7, 318:24, 388:8, 388:17, 400:11, 503:11, 504:7, 516:2, 519:15, 520:9
Conditions [3] - 258:20, 259:20, 261:16
conduct [7] - 296:6, 305:17, 385:4, 385:7, 385:10, 443:11, 443:12
conducted [4] - 314:4, 337:23, 376:19, 388:20
conducting [2] - 301:20, 361:12
confidence [4] - 400:16, 403:9, 404:19, 405:9
Confidential [2] - 257:11, 261:13
conflict [1] - 470:3
confused [1] - 460:4
confusion [1] - 262:14
congratulating [1] - 469:15
conjunction [1] - 269:11
Connecticut [1] - 350:24
connection [3] - 424:22, 439:15, 443:18
conservation [3] - 393:25, 394:1, 403:3
Conservation [1] - 376:25
conservative [13] - 264:6, 269:12, 269:24, 269:25, 270:3, 270:5, 286:20, 286:23, 318:12, 318:14, 318:23, 360:4, 504:6
consider [11] - 277:7, 359:3, 427:10, 435:2, 435:4, 435:12, 447:2, 471:3, 481:2, 498:23, 520:1
considerably [1] - 512:7
consideration [4] - 379:25, 472:2, 474:25, 496:25
considerations [1] - 281:16
considered [3] - 268:3, 491:14, 496:24
considering [1] - 356:25
consistency [1] - 488:16
consistent [1] - 486:11
constitutes [1] - 409:25
constitution [1] - 364:8
constructed [1] - 413:6
construction [3] - 303:4, 394:1, 456:8
consultant [5] - 291:20, 321:25, 333:24, 396:12, 405:20
consultants [3] - 494:14, 495:5, 495:7
Consultants [1] - 375:10
consulted [1] - 377:3
consulting [3] - 334:1, 375:24, 452:20
contacted [4] - 425:19, 457:5, 480:12, 493:7
contain [1] - 424:24
contained [1] - 410:1
contains [1] - 409:22
contemplating [1] - 431:12
content [2] - 424:19, 455:8
contents [1] - 427:11
context [3] - 362:22, 429:21, 435:16
contingent [1] - 394:16
continual [1] - 393:9
continually [4] - 402:20, 488:7, 488:13, 488:17
continue [2] - 345:13, 492:19
Continued [8] - 254:1, 255:1, 256:1, 257:1, 258:1, 259:1, 260:1, 261:1
continued [5] - 377:8, 419:17, 453:4, 457:1, 487:24

continues [2] - 335:6, 413:6
continuing [2] - 450:18, 452:24
contracted [1] - 351:6
contrary [2] - 410:25, 479:15
contributed [1] - 280:3
contributing [3] - 280:19, 298:19, 491:2
contribution [4] - 281:7, 298:4, 298:12, 298:14
contributions [2] - 280:15, 280:23
contributor [3] - 345:23, 372:25, 373:11
contributory [2] - 507:14
control [6] - 342:24, 350:1, 367:19, 367:20, 494:21, 500:7
controvert [1] - 317:19
conversation [2] - 426:14, 426:17
conversations [1] - 481:19
Cooperative [1] - 260:21
coordinate [2] - 408:19, 408:21
coordinated [1] - 408:12
coordinating [1] - 402:20
coordination [7] - 377:22, 389:20, 393:8, 393:9, 394:12, 402:21, 407:18
Coordination [1] - 257:4
copied [1] - 412:16
cops [1] - 297:8
copy [5] - 356:14, 423:12, 499:7, 519:18, 519:20
corner [1] - 264:17
correct [86] - 263:15, 263:16, 263:20, 263:21, 264:3, 264:4, 264:15, 269:9, 276:5, 276:6, 277:9, 277:12, 278:1, 280:7, 282:16, 284:16, 285:12, 287:17, 290:5, 299:15, 299:18, 299:19, 303:2, 303:9, 303:10, 303:15, 303:16, 303:18, 303:19, 304:8, 304:18, 306:8, 306:9, 307:14, 309:9, 309:11, 309:21, 309:22, 309:25, 310:1, 311:4, 314:1, 314:8, 318:16, 318:19, 319:18, 324:7, 326:14, 328:1, 341:5, 341:6, 343:2, 354:1, 356:1, 359:10, 361:8, 364:22, 372:3, 389:9, 398:17, 400:12, 409:9, 412:16, 413:10, 416:6, 441:8, 441:11, 441:12, 442:18, 442:19, 449:14, 454:23, 458:16, 465:2, 495:22, 500:11, 500:12, 501:19, 505:25, 508:21, 508:23, 510:7, 515:17, 516:18, 519:3, 522:12
Corrected [1] - 260:17
correcting [1] - 262:20
correction [1] - 454:3
corrections [7] - 302:6, 322:17, 334:13, 376:14, 454:1, 455:1, 495:14
correctly [4] - 338:12, 342:23, 421:5, 520:21
correlated [1] - 336:23
correlation [1] - 359:24
Correspondence [1] - 257:4
correspondence [1] - 393:9
corresponding [1] - 353:9
corridor [15] - 381:7, 392:5, 392:7, 392:9, 392:14, 392:15, 392:17, 392:20, 392:21, 393:15, 394:17, 398:7, 399:18, 405:1
couched [1] - 417:10
couches [1] - 416:21
counsel [13] - 347:1, 352:9, 410:16, 410:22, 412:12, 412:13, 412:18, 416:1, 417:4, 417:7, 417:16, 425:17, 446:23
counsel's [2] - 339:9, 443:4
count [6] - 284:12, 377:14, 382:4, 382:17, 423:10, 507:8
counterproposal [1] - 274:17
Counties [3] - 259:6, 262:5, 292:4
counties [8] - 333:13, 345:3, 345:4, 350:2, 350:23, 359:5, 377:6, 419:3
COUNTIES [1] - 251:6
countries [3] - 347:22, 348:7, 355:6
country [3] - 348:25, 349:1, 443:14
counts [1] - 289:1
COUNTY [1] - 522:3
county [16] - 290:25, 291:18, 291:22, 291:24, 292:2, 295:10, 335:5, 337:6, 341:14, 347:6, 357:10, 359:3, 359:12, 384:25, 490:2, 491:23
County [29] - 257:9, 260:22, 276:12, 276:16, 276:20, 276:24, 277:3, 277:7, 290:3, 290:7, 291:10, 291:18, 292:22, 350:9, 350:10, 365:5, 412:21, 455:13, 460:21, 460:24, 461:12, 463:7, 463:17, 464:11, 466:24, 478:7, 508:21, 519:6
couple [12] - 297:15, 317:8, 330:17, 362:5, 382:2, 393:24, 396:25, 406:19, 427:25, 490:14, 498:9
course [17] - 320:1, 327:13, 327:14, 335:6, 347:21, 357:9, 357:23, 369:7, 384:12, 386:2, 392:10, 396:17, 398:6, 401:4, 401:8, 401:15, 403:14
court [11] - 300:25, 321:16, 333:1, 338:25, 369:16, 375:4, 423:9, 423:22, 439:6, 452:7, 494:5
Court [1] - 429:24
courthouse [1] - 490:2
courts [1] - 348:3
cover [4] - 281:23, 281:25, 282:6, 504:3
covered [1] - 504:25
CR1-C10-P [2] - 265:12, 265:17
CR2-13 [1] - 384:12
CR2-58 [1] - 442:16
CR2-77 [1] - 274:5
CR2-ALT.3 [3] - 265:18, 265:19, 265:22
CR2-C98-NP [1] - 274:2
CR2-D221-NP [1] - 308:11
craft [1] - 496:14
crane [19] - 377:17, 382:14, 388:8, 390:17, 391:14, 391:16, 392:2, 392:4, 392:11, 392:15, 392:17, 394:6, 394:23, 395:23, 396:11, 401:3, 402:5, 420:6, 514:7
cranes [39] - 380:17, 388:15, 388:23, 390:11, 391:6, 391:12, 391:17, 391:18, 391:19, 391:25, 392:8, 393:5, 393:14, 393:21, 393:23, 394:9, 394:18, 395:2, 397:1, 398:21, 398:24, 399:15, 399:20, 400:8, 400:13, 401:17, 401:21, 402:12, 402:19, 402:23, 403:1, 404:20, 404:22, 405:2, 406:12, 406:24, 420:3, 420:4, 428:4
create [7] - 270:23, 271:10, 272:3, 306:19, 306:24, 327:23, 401:18
created [3] - 391:20, 402:7, 402:14
creates [1] - 310:19
creating [3] - 320:16, 419:16, 442:16
creation [1] - 402:4
credibility [1] - 478:13
credible [1] - 430:5
Creek [1] - 387:1
Cremer [1] - 251:13
CREMER [158] - 262:1, 263:1, 274:24, 277:15, 283:14, 292:7, 292:9, 293:1, 293:3, 293:6, 293:9, 294:11, 294:19, 297:13, 300:15, 300:19, 300:22, 302:20, 313:13, 313:17, 313:19, 315:1, 315:4, 316:6, 320:21, 320:25, 321:4, 321:8, 321:14, 323:20, 323:24, 325:19, 325:21, 325:24, 332:17, 332:20, 337:9, 340:12, 340:15, 355:17, 361:23, 367:11, 369:22, 371:20, 374:16, 374:19, 374:23, 374:25, 378:14, 378:17, 381:14, 381:17, 381:22, 381:24, 387:23, 387:25, 395:19, 396:20, 406:1, 406:3, 406:8, 406:14, 407:1, 407:3, 407:11, 409:1, 409:3, 409:7, 409:11, 409:14, 410:11, 413:25, 415:3, 415:15, 417:22, 418:1, 418:4, 420:9, 420:12, 420:23, 421:15, 421:21, 421:25, 422:2, 422:4, 422:12,

422:17, 423:1, 423:6, 423:10, 423:19, 428:23, 429:1, 429:22, 430:11, 430:19, 430:21, 431:11, 431:17, 431:20, 434:2, 438:23, 439:1, 439:4, 441:15, 441:18, 441:21, 441:25, 442:2, 442:4, 442:7, 442:9, 442:11, 442:21, 443:7, 443:22, 444:6, 445:13, 445:16, 445:20, 446:2, 446:5, 446:8, 450:3, 450:10, 450:17, 450:24, 451:8, 451:15, 451:18, 451:22, 451:25, 458:24, 459:2, 463:2, 468:9, 469:3, 489:2, 490:7, 490:11, 490:13, 493:10, 493:12, 493:15, 493:19, 493:22, 497:9, 497:12, 508:15, 511:21, 513:24, 518:17, 521:5, 521:11, 521:13, 521:15, 521:17, 521:22

crisp [1] - 268:22

criteria [3] - 305:12, 305:13, 437:7

critical [1] - 496:16

Crocker [1] - 487:19

Cross [37] - 253:4, 253:5, 253:5, 253:6, 253:10, 253:11, 253:11, 253:14, 253:15, 253:15, 253:16, 253:19, 253:19, 253:20, 254:4, 254:5, 254:5, 254:11, 254:12, 254:12, 254:15, 254:18, 254:19, 254:19, 254:20, 255:4, 255:5, 255:11, 255:12, 255:21, 255:22, 256:4, 256:5, 256:5, 256:14, 256:15, 256:15

CROSS [17] - 302:22, 313:21, 315:6, 324:1, 337:12, 355:19, 367:13, 369:23, 378:18, 388:3, 429:2, 430:23, 459:5, 463:5, 497:13, 508:16, 511:24

cross [24] - 264:21, 302:19, 304:14, 323:19, 326:4, 326:7, 326:10, 337:8, 413:18, 415:7, 417:19, 428:25, 429:19, 429:25, 430:6, 430:9, 441:17, 443:11, 443:12, 443:13, 458:23, 459:1, 497:8, 497:11

Cross-Examination [37] - 253:4, 253:5, 253:5, 253:6, 253:10, 253:11, 253:11, 253:14, 253:15, 253:15, 253:16, 253:19, 253:19, 253:20, 254:4, 254:5, 254:5, 254:11, 254:12, 254:12, 254:15, 254:18, 254:19, 254:19, 254:20, 255:4, 255:5, 255:11, 255:12, 255:21, 255:22, 256:4, 256:5, 256:5, 256:14, 256:15, 256:15

cross-examination [8] - 302:19, 323:19, 337:8, 415:7, 429:25, 430:6, 430:9, 497:11

CROSS-EXAMINATION [17] - 302:22, 313:21, 315:6, 324:1, 337:12, 355:19, 367:13, 369:23, 378:18, 388:3, 429:2, 430:23, 459:5, 463:5, 497:13, 508:16, 511:24

cross-sectional [3] - 326:4, 326:7, 326:10

crossing [1] - 444:3

crowned [1] - 322:25

CROWNED [1] - 251:4

Crowned [132] - 251:17, 257:3, 262:4, 262:7, 262:22, 275:13, 276:15, 277:11, 281:19, 283:25, 284:5, 285:7, 291:11, 291:19, 291:21, 291:22, 291:23, 291:24, 292:1, 292:3, 293:19, 296:22, 297:4, 297:6, 300:17, 300:23, 301:13, 302:16, 314:2, 314:12, 314:17, 314:21, 320:25, 321:24, 322:23, 323:15, 325:3, 332:17, 332:22, 333:10, 333:11, 333:12, 334:6, 334:21, 335:20, 336:1, 337:4, 356:21, 357:7, 357:15, 359:12, 359:20, 374:16, 375:1, 375:2, 375:12, 375:15, 376:19, 377:3, 377:8, 379:19, 383:17, 385:18, 386:18, 388:16, 389:3, 391:10, 391:13, 391:23, 393:7, 393:21, 393:22, 395:1, 395:5, 395:12, 395:14, 396:12, 396:14, 396:17, 397:23, 400:10, 402:20, 403:1, 403:10, 404:15, 405:12, 405:18, 405:19, 406:8, 406:11, 407:9, 408:17, 412:17, 413:5, 418:15, 420:12, 422:24, 425:12, 426:10, 428:24, 433:6, 438:6, 438:8, 440:7, 440:8, 441:16, 443:7, 444:8, 446:10, 447:1, 447:16, 456:17, 458:25, 483:20, 484:17, 490:9, 492:8, 492:9, 496:11, 497:10, 502:2, 510:2, 510:11, 517:7, 520:1, 520:2, 520:13, 521:9

CRR [1] - 251:24

crumby [1] - 353:10

crust [1] - 268:11

CRW [11] - 257:19, 257:20, 257:21, 259:6, 259:7, 259:8, 259:9, 259:22, 260:7, 260:8, 260:9

cue [1] - 335:12

cultural [10] - 375:15, 375:17, 375:19, 376:1, 376:21, 377:1, 377:19, 377:21, 377:23, 378:4

Cultural [2] - 257:11, 259:22

cumulative [3] - 280:2, 299:9, 520:16

CUP [1] - 333:16

curiosity [2] - 270:14, 470:25

curious [2] - 330:14, 383:2

current [10] - 277:4, 290:20, 310:2, 310:25, 386:17, 408:6, 408:22, 426:22, 510:22

Curriculum [2] - 257:23, 259:14

curtail [3] - 266:3, 274:9, 275:9

curtailed [2] - 264:25, 274:6

curtailing [1] - 265:25

curtailment [1] - 276:9

curve [2] - 509:19, 509:21

custom [1] - 512:17

cutting [1] - 266:25

D

daily [3] - 359:18, 362:13, 362:18

Dakota [68] - 251:25, 252:4, 257:6, 262:18, 262:21, 262:22, 262:24, 268:21, 283:17, 283:20, 283:24, 284:4, 285:5, 285:10, 286:15, 290:6, 290:11, 311:11, 316:15, 334:4, 334:5, 341:15, 348:10, 349:7, 350:24, 354:16, 366:20, 370:3, 370:6, 370:12, 371:14, 371:15, 375:11, 377:5, 377:15, 380:15, 387:3, 387:5, 393:11, 394:13, 396:23, 397:14, 400:22, 419:16, 424:4, 428:10, 452:16, 453:10, 455:18, 456:16, 457:20, 458:4, 458:8, 459:9, 467:22, 468:23, 484:10, 485:22, 486:17, 487:11, 488:20, 492:9, 492:19, 501:13, 501:14, 515:21, 522:7, 522:13

DAKOTA [2] - 251:2, 522:1

Dakota's [1] - 402:24

damage [4] - 472:7, 473:11, 489:6, 489:7

dark [1] - 297:11

DARREN [1] - 256:13

Darren [4] - 261:12, 261:12, 394:24, 519:20

DARYL [1] - 253:9

Daryl [3] - 257:15, 257:15, 258:22

data [19] - 269:4, 306:22, 310:18, 312:18, 314:8, 470:20, 471:17, 472:17, 473:6, 473:8, 473:12, 474:13, 474:20, 474:21, 478:6, 486:7, 488:11, 488:16, 503:15

Data [2] - 449:25, 450:1

Database [1] - 387:4

database [2] - 387:4, 488:4

date [8] - 348:19, 364:5, 390:22, 426:20, 489:14, 491:16, 491:18, 491:21

Dated [1] - 522:13

dated [3] - 347:3, 348:14, 390:7

dates [1] - 383:1

Dates [1] - 257:4

David [7] - 261:14, 261:15, 452:6, 452:12, 493:21, 494:4, 494:10
DAVID [2] - 255:20, 256:3
days [7] - 368:2, 393:25, 427:25, 467:6, 470:21, 473:17, 473:22
dB [4] - 509:24, 510:16, 510:21, 516:23
dBA [34] - 266:13, 287:17, 287:18, 287:22, 287:23, 308:13, 309:7, 311:4, 312:2, 313:4, 419:6, 419:7, 444:15, 499:3, 499:18, 501:1, 501:18, 502:18, 503:7, 503:22, 509:13, 510:6, 510:12, 512:6, 513:7, 514:7, 517:11, 517:15, 519:12, 520:23, 521:1
de [3] - 251:14, 328:4, 435:3
DE-4 [1] - 474:7
dead [1] - 290:23
deal [7] - 267:8, 299:18, 342:24, 357:3, 478:13, 487:2, 505:16
dealing [7] - 274:12, 274:16, 282:22, 350:2, 459:19, 476:25, 505:19
debate [3] - 329:15, 517:10, 518:2
December [1] - 393:13
decibel [3] - 287:20, 308:11, 309:17
decibels [22] - 267:4, 287:25, 288:1, 290:22, 298:11, 298:13, 298:18, 308:20, 308:23, 318:10, 319:3, 319:4, 327:20, 335:1, 335:3, 351:16, 368:24, 369:8, 369:17
decide [1] - 419:9
decided [2] - 360:20, 476:13
deciding [1] - 486:14
decipher [1] - 280:18
decision [8] - 269:5, 275:20, 290:11, 445:12, 447:7, 480:19, 488:23, 501:17
decision-making [1] - 480:19
decisions [2] - 281:11, 281:13
declared [2] - 509:8, 519:1
Decommissioning [1] - 257:11
decrease [2] - 272:4, 272:7
deed [1] - 465:7
deeds [1] - 490:1
Deeds [1] - 465:8
default [2] - 339:19, 353:13
defeat [2] - 353:9, 353:12
defer [1] - 306:2
deferral [1] - 259:4
define [2] - 324:10, 489:19
defined [1] - 303:23
definite [1] - 513:14
definitely [6] - 285:20, 289:14, 295:12, 297:5, 299:8, 500:23
definition [3] - 279:9, 303:21, 480:15
definitive [1] - 405:2
defused [1] - 271:8
degree [9] - 322:5, 322:6, 322:8, 331:4, 356:5, 356:7, 356:9, 356:10, 452:24
delete [1] - 502:12
deletions [3] - 454:1, 455:1, 495:14
demand [3] - 477:12, 483:8, 504:20
demonstrate [1] - 440:15
dense [2] - 497:25, 502:20
density [2] - 498:10, 507:6
Department [2] - 519:2, 519:5
department [1] - 519:7
dependent [1] - 394:16
depict [2] - 296:15, 296:18
depicting [1] - 259:3
deprivation [6] - 267:15, 267:20, 317:25, 324:13, 324:16, 327:1
depth [1] - 504:3
derived [2] - 283:4, 283:7
describe [8] - 270:6, 283:5, 385:21, 393:22, 394:2, 394:7, 452:21, 453:7
described [6] - 341:24, 387:18, 393:5, 401:24, 420:19, 505:3
describing [4] - 303:8, 355:11, 363:1, 363:7
design [10] - 272:13, 281:21, 287:11, 309:20, 362:16, 500:15, 502:2, 509:13, 510:13, 513:17
designated [1] - 496:22
designation [5] - 453:2, 453:3, 453:6
designed [7] - 368:21, 376:22, 380:11, 380:15, 498:6, 498:24, 501:1
desirable [2] - 500:23, 513:6
desktop [5] - 376:19, 377:12, 380:4, 380:5, 388:19
destroyed [1] - 402:15
detail [3] - 487:14, 487:15, 487:16
detailed [6] - 281:17, 346:22, 377:11, 380:21, 487:23, 489:11
details [2] - 387:16, 455:19
detect [1] - 512:18
detected [2] - 388:24, 405:2
detections [2] - 394:10, 405:5
determination [2] - 339:25, 462:18
determine [15] - 279:24, 293:17, 304:4, 304:12, 304:13, 305:20, 309:24, 323:12, 355:8, 376:20, 457:3, 461:10, 461:20, 462:4, 463:17
determined [6] - 310:2, 340:9, 353:14, 390:15, 461:17, 462:4
DEUEL [1] - 251:6
Deuel [11] - 259:6, 259:7, 260:3, 262:5, 262:23, 262:24, 286:8, 286:12, 350:9, 412:21, 492:10
develop [4] - 320:19, 329:23, 388:22, 472:15
developed [2] - 353:5, 399:5
developing [3] - 328:22, 398:14, 472:9
development [2] - 375:25, 509:23
developments [2] - 301:21, 466:10
deviate [1] - 514:12
device [1] - 308:1
devices [1] - 306:19
devised [2] - 497:22, 498:24
DH-1 [1] - 257:15
DH-2 [1] - 257:16
DH-S-1 [1] - 258:23
DH-S-2 [1] - 259:3
DH-S-3 [1] - 259:4
diagnose [1] - 361:16
diagnosis [1] - 323:5
diesels [1] - 513:5
differ [1] - 269:17
difference [23] - 271:5, 287:21, 289:4, 299:14, 307:23, 308:14, 309:5, 309:8, 342:6, 384:16, 384:24, 395:15, 416:24, 436:22, 456:25, 457:8, 473:9, 514:18, 517:11, 518:3, 518:7, 518:9
different [25] - 288:17, 303:3, 309:2, 316:24, 317:12, 341:23, 380:10, 382:2, 382:12, 392:23, 393:1, 393:24, 398:9, 404:22, 408:14, 421:20, 435:16, 440:11, 458:17, 458:19, 471:9, 472:7, 478:3, 499:6, 503:16
differential [1] - 276:4
differentiate [2] - 461:7, 486:3
differently [1] - 498:6
differs [1] - 353:22
difficult [13] - 315:12, 315:17, 315:23, 457:25, 466:3, 466:16, 466:20, 485:13, 486:15, 512:12, 512:21, 515:4, 515:15
difficulty [1] - 515:12
dig [2] - 370:1, 462:3
dimension [1] - 338:20
dimensions [2] - 338:2, 339:24
dinner [1] - 342:4
dip [1] - 506:11
direct [16] - 262:7, 289:11, 355:4, 375:1, 378:13, 406:25, 422:8, 429:25, 430:4, 430:12, 443:12, 452:2, 455:9, 458:23, 495:4, 505:23
Direct [38] - 253:4, 253:10, 253:14, 253:18, 254:4, 254:6, 254:11, 254:15, 254:18, 255:4, 255:11, 255:14, 255:17, 255:21, 256:4, 256:8, 256:11, 256:14, 257:12, 257:12, 257:13, 257:14, 257:15, 257:16, 266:11, 302:1, 336:5, 376:6, 383:5, 394:24, 424:25, 465:9, 465:18, 495:13, 496:16, 497:19, 509:22, 511:13
DIRECT [10] - 262:15, 301:1, 321:17, 333:2, 375:5, 423:23, 439:7, 446:11, 452:8, 494:6
directed [3] - 415:18, 438:11, 452:25
directing [1] - 427:1
direction [3] - 280:12, 448:19, 478:3
directions [2] -

278:13, 280:13
directly [3] - 282:23, 354:20, 440:8
director [1] - 375:10
dirt [1] - 268:7
disagree [1] - 413:7
disarm [1] - 419:21
disarming [1] - 419:24
disasters [1] - 401:7
disclose [4] - 458:10, 479:7, 479:12, 486:14
disclosed [3] - 456:19, 481:6, 481:23
disclosing [2] - 481:3, 486:20
disclosure [10] - 457:13, 458:8, 478:20, 479:3, 479:5, 480:1, 481:12, 486:12, 486:14, 486:23
discuss [4] - 296:8, 349:19, 420:25, 421:15
discussed [7] - 380:9, 386:19, 386:20, 389:8, 464:24, 511:16, 511:17
discusses [1] - 386:23
discussing [5] - 265:12, 357:13, 363:22, 364:1, 492:18
Discussion [12] - 301:9, 316:9, 331:24, 336:9, 374:22, 406:7, 409:10, 480:11, 494:3, 514:4, 521:4, 521:21
discussion [10] - 413:17, 424:13, 437:4, 446:19, 446:21, 447:10, 482:4, 493:22, 503:24, 517:6
discussions [5] - 274:4, 333:13, 407:15, 407:16, 411:18
disease [1] - 324:19
Diseases [2] - 323:6, 324:20
dismissing [1] - 404:3
disorientation [1] - 366:17
disposal [3] - 356:22, 357:25, 358:2
disposed [3] - 358:6, 358:12, 358:13
dispute [2] - 289:11, 291:1
dissertation [1] - 356:17
distance [42] - 268:12, 272:7, 272:13, 272:14, 272:18, 272:21, 284:11, 289:1, 289:3, 293:20, 298:2, 298:3, 304:20, 304:22, 305:8, 305:14, 305:16, 325:3, 327:6, 331:16, 331:17, 331:21, 332:2, 332:10, 383:11, 383:16, 384:1, 459:21, 461:9, 461:10, 461:16, 467:24, 468:2, 484:15, 484:18, 506:15, 516:12, 516:20, 517:1, 517:3, 517:17
distances [5] - 304:21, 305:11, 332:14, 383:19, 507:3
distinct [1] - 299:14
Distress [1] - 258:8
disturbance [5] - 327:1, 327:20, 341:22, 369:1, 374:6
Disturbance [1] - 258:7
disturbances [1] - 368:20
disturbed [2] - 385:20, 386:8
divergence [2] - 279:1, 516:19
divergency [1] - 279:17
divided [1] - 506:3
DK_2 [2] - 296:10, 296:13
DMH-2 [1] - 519:17
DO [1] - 522:8
dock [1] - 374:14
docket [9] - 318:6, 394:22, 458:17, 458:18, 458:19, 494:22, 501:10, 501:16, 514:13
Docket [2] - 262:3, 285:9
dockets [4] - 453:17, 473:1, 510:4, 514:14
doctor [4] - 355:25, 356:5, 361:7, 371:24
doctoral [1] - 356:15
doctorate [1] - 356:3
document [47] - 295:5, 295:25, 312:11, 348:13, 348:15, 348:23, 349:1, 351:2, 351:6, 351:11, 351:15, 351:18, 351:23, 351:25, 352:15, 360:9, 360:16, 362:3, 364:5, 364:20, 364:22, 365:9, 365:10, 389:25, 390:5, 390:10, 391:5, 424:23, 425:2, 425:12, 425:21, 425:23, 426:1, 426:4, 427:2, 427:6, 439:16, 439:19, 453:22, 454:18, 459:20, 495:12, 496:2, 496:4, 519:24
documentation [4] - 347:9, 347:10, 347:12, 348:2
documented [2] - 386:25, 419:7
documents [3] - 321:25, 322:21, 351:12
DOE [1] - 349:8
domestic [3] - 358:22, 385:8, 385:12
done [41] - 276:25, 280:10, 311:9, 311:13, 316:23, 317:1, 317:2, 318:1, 319:7, 319:19, 342:13, 342:20, 350:15, 355:15, 361:14, 365:18, 369:2, 370:11, 371:11, 380:2, 381:25, 382:5, 391:11, 393:13, 394:12, 396:17, 404:4, 426:14, 433:15, 433:16, 450:25, 462:14, 473:1, 475:16, 481:17, 488:10, 493:23, 498:23, 502:23, 512:13
door [1] - 433:8
double [1] - 475:5
doubling [4] - 287:18, 309:3, 309:10, 309:16
doubt [1] - 286:11
down [23] - 265:16, 279:8, 281:7, 284:4, 300:20, 321:5, 332:21, 360:13, 363:11, 373:10, 374:20, 391:21, 392:19, 407:19, 408:19, 419:19, 432:2, 439:2, 442:12, 493:16, 496:18, 502:10, 521:18
download [1] - 315:24
downplay [2] - 373:7, 373:15
downplayed [1] - 374:12
downplaying [1] - 335:21
Dr [24] - 306:4, 321:12, 321:15, 321:21, 323:19, 332:25, 333:6, 335:11, 336:5, 337:8, 337:14, 340:18, 354:24, 355:21, 361:13, 362:1, 362:24, 363:3, 363:5, 367:15, 374:19, 512:16
DR [5] - 260:23, 261:3, 261:4, 261:5, 261:9
DR(4 [1] - 261:6
draft [2] - 312:12, 314:9
draw [1] - 363:19
drawing [2] - 453:19, 454:15
Drexel [1] - 322:6
drive [2] - 344:15, 494:11
driven [2] - 268:16, 268:21
driver [1] - 312:25
drivers [1] - 367:1
driveway [7] - 490:3, 490:17, 491:4, 491:11, 491:13, 492:2, 492:3
driving [9] - 266:18, 279:8, 343:25, 344:4, 344:7, 366:8, 461:25, 468:2, 484:18
Dropped [2] - 257:20, 260:5
drops [1] - 484:16
drought [2] - 393:2, 401:6
drove [1] - 474:8
ducks [1] - 381:9
due [8] - 309:17, 310:5, 337:1, 410:15, 441:3, 456:21, 503:10, 504:25
duly [1] - 522:8
duly-appointed [1] - 522:8
duplicative [2] - 316:22, 359:1
duration [6] - 353:14, 353:15, 397:10, 397:11, 397:12, 407:12
during [23] - 297:1, 310:15, 327:16, 333:13, 379:18, 382:11, 382:15, 383:2, 385:23, 385:25, 386:1, 388:24, 394:11, 398:3, 424:13, 443:11, 457:13, 462:13, 475:8, 481:14, 485:11
dust [1] - 419:16
duties [1] - 394:11

13

E

E-H-L-E-B-R-A-C-H-T [1] - 424:2
e-mailed [1] - 487:4
Eagle [1] - 376:25
eagle [3] - 377:15, 378:8, 379:23
eagles [3] - 380:17, 381:8, 382:13
ear [1] - 266:12
early [4] - 344:8, 346:10, 426:2, 472:24
ears [2] - 327:25, 328:13
Earth [1] - 491:10
Easement [1] - 260:16
easement [3] - 434:24, 439:24, 440:1
easements [7] - 378:1, 378:2, 378:4, 380:7, 380:8, 380:9, 449:1
easier [1] - 389:12
east [12] - 278:3, 278:4, 288:16, 294:6, 339:3, 379:2,

403:1, 428:11, 428:12, 429:14, 440:25, 467:20
East [3] - 252:3, 398:14, 452:13
easy [6] - 290:12, 431:22, 478:25, 498:11, 498:17, 519:19
economic [2] - 323:10, 373:8
ecosystems [1] - 401:8
edge [5] - 284:20, 366:9, 383:23, 510:3, 510:5
edition [1] - 323:7
educating [1] - 404:21
education [5] - 301:18, 322:3, 333:18, 375:21, 453:4
educational [1] - 452:22
EDWARDS [33] - 294:21, 294:23, 295:13, 297:12, 315:7, 316:4, 325:23, 369:24, 371:19, 414:4, 416:5, 416:18, 417:6, 417:17, 423:15, 430:24, 431:9, 452:6, 452:9, 458:22, 489:3, 489:5, 490:6, 493:14, 493:20, 493:25, 494:4, 494:7, 497:6, 518:19, 518:21, 520:19, 520:25
Edwards [12] - 251:23, 253:16, 254:5, 254:9, 254:12, 254:20, 255:12, 255:21, 255:23, 256:4, 256:6, 414:4
effect [39] - 271:10, 272:11, 276:24, 278:8, 285:22, 317:24, 318:16, 323:4, 324:6, 324:12, 324:14, 338:11, 342:10, 344:3, 344:13, 344:16, 361:4, 362:16, 362:21, 363:12, 368:16, 388:21, 434:24, 444:18, 456:3, 467:15, 471:11, 471:18, 473:19, 483:6, 484:7, 484:13, 485:23, 505:6, 505:9, 505:13, 505:15, 510:24, 517:19
Effect [1] - 257:10
effective [2] - 489:14, 491:21
Effects [5] - 258:4, 258:6, 258:15, 258:16, 259:15
effects [39] - 299:9, 306:1, 324:9, 324:17, 330:4, 330:23, 330:25, 336:6, 336:11, 356:17, 356:18, 360:25, 363:10, 363:22, 363:24, 364:1, 365:19, 370:7, 374:7, 374:10, 384:23, 385:8, 412:23, 413:7, 434:16, 434:22, 435:1, 439:24, 440:1, 444:10, 447:6, 447:18, 448:9, 448:16, 470:8, 472:18, 506:1, 516:21, 517:18
effort [3] - 355:7, 496:17, 502:9
EHLEBRACHT [1] - 255:10
Ehlebracht [9] - 260:16, 412:14, 412:19, 413:2, 413:14, 416:25, 417:12, 423:21, 424:2
eight [5] - 347:8, 353:19, 354:3, 354:25, 508:9
eight-page [1] - 347:8
either [12] - 277:10, 299:7, 307:3, 307:8, 351:20, 359:25, 366:10, 383:24, 444:17, 447:25, 496:13, 501:22
EL18-026 [1] - 501:11
EL19-027 [2] - 251:4, 262:3
elaborate [1] - 262:20
elderly [1] - 435:22
electrical [1] - 434:21
electromagnetic [1] - 434:20
elementary [1] - 297:9
elevated [1] - 461:22
elevator [1] - 419:15
elevators [1] - 419:18
Elicit [2] - 258:19, 259:19
emission [4] - 309:24, 349:16, 362:13, 506:20
emissions [3] - 282:22, 282:23, 349:15
Emissions [1] - 258:22
emitted [1] - 364:24
emitter [1] - 306:13
emitting [2] - 279:12, 505:16
empathy [1] - 433:24
emphasis [1] - 376:4
empirically [3] - 269:10, 283:4, 283:7
employed [6] - 277:23, 301:6, 424:5, 424:6, 494:12
employer [1] - 447:2
employment [1] - 484:11
enclosed [1] - 338:14
encompass [1] - 284:17
end [11] - 266:16, 276:7, 353:18, 416:9, 416:10, 418:10, 431:16, 437:6, 469:15, 499:11, 518:9
Endangered [1] - 390:14
endangered [1] - 403:6
ends [1] - 349:20
ENERGY [1] - 251:5
Energy [3] - 303:12, 376:24, 380:12
energy [11] - 262:4, 301:22, 323:9, 366:3, 373:18, 373:21, 375:25, 403:21, 453:12, 472:8, 488:12
enforce [1] - 419:1
enforced [1] - 296:1
engaged [1] - 333:12
engineer [5] - 269:16, 269:17, 367:20, 367:22, 494:19
engineering [2] - 267:19, 322:5
engineers [1] - 367:19
engines [1] - 513:4
English [6] - 345:16, 349:12, 349:14, 352:2, 352:18, 352:21
enhanced [2] - 509:19, 509:21
enjoin [1] - 419:17
enjoy [3] - 412:2, 515:22, 515:23
enjoyment [1] - 470:12
ensure [2] - 369:6, 369:9
ensuring [2] - 355:13, 378:9
enter [3] - 275:25, 338:19, 358:9
entered [1] - 275:24
entering [1] - 358:18
enters [2] - 269:3, 339:21
entire [4] - 273:25, 382:5, 400:1, 405:9
entirely [2] - 342:14, 423:10
entitled [7] - 252:2, 336:10, 411:6, 412:8, 443:20, 444:3, 522:10
entrance [1] - 338:22
entry [1] - 349:14
environment [7] - 306:6, 306:22, 308:1, 310:19, 343:1, 358:9, 358:19
Environmental [1] - 375:9
environmental [21] - 301:25, 322:7, 322:11, 333:7, 333:8, 333:22, 333:24, 356:4, 356:5, 356:6, 356:10, 357:1, 357:23, 359:8, 370:25, 375:14, 375:17, 375:23, 376:1, 385:2
environmental-science [1] - 356:4
environments [4] - 306:23, 312:24, 328:21, 356:11
envision [1] - 338:24
EPCO [3] - 510:19, 510:24, 511:6
epidemiological [2] - 317:12, 361:11
Epilepsy [2] - 258:17, 258:18
epileptic [1] - 329:23
Epsilon [3] - 301:6, 301:11, 301:23
equal [4] - 288:1, 298:20, 391:20, 402:7
equals [1] - 288:2
equations [1] - 283:5
equipment [3] - 315:15, 315:20, 315:22
equity [1] - 476:18
equivalent [2] - 349:6, 349:9
erecting [1] - 347:22
error [1] - 283:9
escapes [1] - 420:1
esoteric [1] - 504:16
especially [1] - 407:23
essentially [18] - 276:3, 298:4, 331:5, 338:23, 339:16, 339:18, 339:23, 340:5, 341:25, 350:21, 382:6, 443:16, 497:2, 507:17, 510:20, 514:22, 517:22, 520:2
establish [4] - 304:19, 310:16, 310:20, 488:17
established [3] - 462:5, 485:18, 489:13
establishing [1] - 488:7
estate [6] - 452:20, 453:1, 453:5, 453:10, 463:9, 480:5
Estate [2] - 480:9, 480:12
estimate [9] - 280:8, 310:25, 438:1, 460:15, 460:17, 461:8, 461:13, 461:18, 465:23
estimation [2] - 350:15, 351:3
et [2] - 352:3, 393:4
Europe [3] - 336:16, 371:2, 373:2
European [5] - 317:8, 336:12, 336:18, 336:19, 347:21
evaluate [1] - 305:12
evaluation [2] - 305:17, 310:5

evening [1] - 344:9
evenly [1] - 312:19
events [1] - 382:10
eventually [2] - 490:25, 509:7
evergreens [1] - 429:11
everywhere [3] - 264:7, 282:12, 395:24
Evidence [3] - 258:21, 409:24, 410:7
evidence [10] - 280:25, 329:2, 334:19, 381:16, 414:10, 419:23, 462:1, 464:15, 470:6, 486:11
Evjen's [1] - 294:3
evolves [1] - 514:20
exact [9] - 283:5, 348:8, 360:12, 399:23, 467:21, 467:24, 491:16, 499:2, 520:9
exactly [14] - 264:2, 269:21, 283:10, 286:13, 290:10, 290:16, 317:2, 347:2, 381:6, 398:18, 421:18, 500:4, 504:23
Examination [68] - 253:4, 253:4, 253:5, 253:5, 253:6, 253:7, 253:7, 253:8, 253:10, 253:10, 253:11, 253:11, 253:14, 253:14, 253:15, 253:15, 253:16, 253:18, 253:19, 253:19, 253:20, 253:21, 254:4, 254:4, 254:5, 254:5, 254:6, 254:7, 254:7, 254:8, 254:8, 254:9, 254:11, 254:11, 254:12, 254:12, 254:15, 254:15, 254:18, 254:18, 254:19, 254:19, 254:20, 255:4, 255:4, 255:5, 255:11, 255:11, 255:12, 255:14, 255:17, 255:21, 255:21, 255:22, 255:23, 255:23, 256:4, 256:4, 256:5, 256:5, 256:6, 256:8, 256:11, 256:12, 256:14, 256:14, 256:15, 256:15
examination [11] - 302:19, 323:19, 337:8, 378:13, 415:7, 429:25, 430:4, 430:6, 430:9, 443:2, 497:11
EXAMINATION [35] - 262:15, 275:4, 277:19, 283:18, 292:11, 294:22, 301:1, 302:22, 313:21, 315:6, 321:17, 324:1, 333:2, 337:12, 355:19, 367:13, 369:23, 375:5, 378:18, 388:3, 423:23, 429:2, 430:23, 439:7, 446:11, 452:8, 459:5, 463:5, 489:4, 490:15, 494:6, 497:13, 508:16, 511:24, 518:20
examines [2] - 295:25, 390:5
example [20] - 307:17, 312:5, 331:9, 341:14, 343:16, 348:9, 349:8, 350:24, 351:13, 351:16, 360:25, 361:15, 364:25, 368:7, 407:9, 419:5, 444:13, 448:10, 501:1, 503:7
exceed [1] - 447:21
exceedance [3] - 274:1, 274:2, 274:19
exceeded [8] - 305:13, 352:3, 352:23, 444:18, 447:8, 447:9, 447:18, 448:17
exceeding [1] - 448:9
excellent [1] - 408:25
except [3] - 400:1, 414:12, 415:8
exceptions [1] - 415:21
excess [1] - 444:11
exclude [1] - 418:7
exclusive [2] - 309:24, 310:3
exclusively [1] - 494:19
excuse [8] - 280:5, 338:17, 429:18, 444:24, 456:24, 461:24, 463:14
excused [14] - 300:21, 321:7, 332:24, 374:21, 406:4, 406:6, 409:3, 409:6, 439:3, 442:23, 451:16, 451:17, 493:18, 521:20
execute [1] - 448:19
executive [1] - 290:13
exercise [1] - 415:19
exhibit [12] - 295:3, 340:21, 345:12, 349:11, 362:25, 390:19, 411:1, 412:19, 424:15, 424:19, 425:10, 514:11
Exhibit [80] - 257:13, 257:14, 257:15, 257:16, 257:16, 257:17, 257:17, 257:18, 257:23, 258:3, 258:4, 258:5, 258:7, 258:8, 258:10, 258:12, 258:13, 258:14, 258:16, 258:17, 258:18, 258:19, 258:20, 258:21, 258:23, 259:3, 259:4, 259:6, 259:7, 259:8, 259:9, 259:13, 259:14, 259:14, 259:15, 259:15, 259:17, 259:18, 259:19, 259:21, 259:23, 260:3, 260:4, 260:4, 260:5, 260:7, 260:8, 260:9, 294:25, 296:9, 302:24, 303:6, 306:5, 316:18, 322:14, 326:10, 334:9, 334:11, 340:19, 345:14, 346:14, 362:25, 363:20, 370:25, 385:14, 389:8, 389:13, 424:20, 424:24, 425:8, 425:23, 427:11, 439:17, 440:1, 453:20, 454:16, 495:9, 496:1, 499:15, 519:17
EXHIBITS [8] - 257:2, 258:2, 259:2, 260:2, 260:15, 260:20, 261:2, 261:11
Exhibits [5] - 261:12, 261:12, 261:13, 261:14, 261:14
exhibits [17] - 302:1, 302:7, 305:2, 322:13, 322:14, 322:18, 334:9, 334:14, 376:6, 376:9, 413:19, 422:9, 422:16, 454:9, 456:12, 460:19, 466:24
exist [6] - 279:7, 306:16, 400:20, 403:17, 419:2, 419:18
existing [4] - 456:4, 460:25, 461:16, 461:21
expand [1] - 498:9
expands [2] - 405:1, 517:3
expansion [2] - 394:17, 507:18
expect [4] - 387:13, 392:21, 447:25, 503:6
expected [3] - 320:18, 357:20, 447:21
expecting [1] - 441:2
experience [32] - 267:7, 269:3, 269:6, 269:15, 274:3, 285:25, 288:8, 301:19, 301:20, 307:2, 314:16, 322:4, 333:19, 334:2, 337:1, 343:7, 343:10, 361:10, 368:12, 368:13, 370:4, 370:5, 370:9, 370:20, 375:22, 375:23, 453:8, 472:13, 476:5, 500:18, 500:24, 517:25
experienced [5] - 307:22, 307:24, 343:14, 343:25, 363:23
experiences [1] - 268:10
experiencing [1] - 361:20
expert [8] - 340:8, 398:23, 405:22, 409:25, 459:10, 479:5, 512:16
expertise [2] - 356:25, 515:16
experts [6] - 332:11, 393:5, 400:10, 402:22, 502:3, 503:8
expired [7] - 463:19, 464:1, 464:12, 464:14, 464:21, 465:10, 465:14
explain [6] - 265:24, 315:14, 434:14, 463:16, 475:17, 497:23
explained [7] - 302:14, 470:2, 470:5, 470:6, 470:10, 470:15, 470:22
explaining [1] - 263:6
explanation [5] - 366:15, 380:25, 399:8, 410:19, 464:20
Explanation [1] - 259:4
exponentially [2] - 287:24, 501:6
Exposure [2] - 258:3, 259:14
exposure [3] - 272:5, 331:5, 356:19
express [1] - 411:6
expressed [4] - 307:10, 406:17, 448:22, 498:19
expression [2] - 406:17, 516:8
extend [4] - 303:24, 305:6, 398:16, 403:19
extended [1] - 397:21
extends [1] - 413:9
extent [10] - 341:10, 378:6, 387:16, 410:15, 411:22, 414:18, 414:24, 415:9, 424:19, 446:19
exterior [5] - 279:3, 335:2, 335:14, 343:6, 351:17
externalities [1] - 491:7
extreme [1] - 401:5
extremely [4] - 363:16, 512:12, 512:21, 513:9
eye [1] - 289:12
eyes [1] - 263:3

F

face [1] - 271:18
facilities [3] - 336:14, 357:3, 403:20
FACILITY [1] - 251:5
facility [1] - 262:5
facing [2] - 429:15, 440:25
fact [26] - 262:23, 291:11, 316:22, 323:8, 336:1, 346:20, 351:5, 361:9, 367:25, 371:8, 403:16, 410:1, 410:13, 420:2, 469:22, 471:10, 480:14, 480:17, 480:18, 480:23, 481:2, 481:6, 481:22, 486:23, 499:23, 515:16
factor [25] - 269:2, 269:7, 281:24, 282:10, 283:8, 283:9, 287:3, 287:5, 288:17, 295:19, 295:22, 296:3, 296:4, 300:10, 318:10, 319:2, 347:5, 486:5, 504:1, 504:4, 507:2, 510:17, 510:23, 516:16
factored [1] - 280:5
factors [5] - 283:7, 372:8, 489:25, 491:2, 517:12
facts [6] - 276:14, 381:15, 410:21, 427:6, 457:12, 480:7
fair [9] - 276:23, 277:6, 285:23, 340:10, 359:4, 414:17, 500:19, 511:5
fairly [7] - 271:12, 312:19, 317:17, 360:4, 440:5, 446:3, 467:22
fall [5] - 284:23, 308:18, 383:8, 383:18, 481:13
fallen [2] - 288:9, 314:23
falling [1] - 279:3
falls [2] - 272:10, 437:8
Falls [7] - 419:14, 452:13, 471:23, 483:5, 483:6, 483:7, 484:14
familiar [22] - 315:8, 318:2, 326:5, 326:17, 328:19, 329:3, 337:21, 337:22, 345:20, 346:7, 346:19, 360:9, 365:4, 365:7, 365:12, 399:11, 425:12, 463:22, 504:2, 508:7, 508:20, 509:21
family [2] - 475:5, 494:14
family-run [1] - 494:14
fan [1] - 469:11
fancy [1] - 327:16
far [27] - 271:7, 272:1, 286:12, 287:8, 293:7, 293:18, 299:4, 304:9, 304:12, 305:5, 305:7, 348:15, 349:3, 372:10, 384:19, 397:12, 401:12, 403:5, 404:7, 431:15, 435:17, 460:12, 467:25, 484:19, 505:7, 510:14
Farm [7] - 260:16, 260:22, 365:4, 365:5, 508:20, 509:7, 518:23
farm [33] - 272:13, 279:10, 279:11, 287:6, 287:9, 306:11, 306:12, 307:19, 307:20, 310:4, 323:15, 342:16, 371:7, 413:5, 413:6, 419:2, 419:22, 425:19, 426:11, 426:19, 434:22, 460:10, 461:21, 498:24, 499:19, 500:25, 501:18, 502:2, 503:6, 505:4, 506:20, 506:25, 507:10
farm's [1] - 501:20
farmer [2] - 358:15, 358:17
farmers [1] - 408:1
farms [11] - 323:13, 336:16, 371:13, 407:18, 408:11, 411:3, 459:20, 461:16, 492:6, 492:7, 500:11
Farms [1] - 259:17
fashion [1] - 408:1
fast [1] - 414:16
favor [1] - 318:15
favorite [1] - 477:5
feasible [10] - 287:7, 287:9, 385:20, 385:22, 385:23, 386:2, 386:4, 386:8, 386:11, 386:13
feather [1] - 509:19
February [5] - 251:8, 252:4, 390:23, 522:11, 522:14
federally [1] - 390:15
feet [19] - 303:18, 304:4, 304:13, 304:17, 304:24, 383:17, 383:24, 383:25, 387:14, 387:19, 427:22, 427:24, 428:8, 461:13, 465:24, 506:16, 506:17, 506:22
fell [2] - 295:10, 486:11
fellowship [1] - 322:11
felt [5] - 417:9, 476:1, 481:20, 481:22, 487:8
few [17] - 316:10, 321:10, 342:4, 388:2, 392:10, 400:16, 400:23, 403:7, 415:21, 453:16, 459:3, 459:7, 463:3, 497:15, 497:18, 516:21
fewer [3] - 498:13, 512:5, 512:7
Fiberglass [4] - 357:25, 358:3, 358:5, 358:19
FIEGEN [76] - 251:12, 264:10, 264:12, 265:5, 265:8, 265:15, 265:24, 266:5, 272:25, 273:5, 273:9, 273:14, 273:17, 273:21, 274:8, 274:20, 275:17, 319:15, 319:19, 319:24, 320:9, 320:13, 320:20, 330:17, 331:1, 331:10, 331:20, 332:1, 332:16, 336:8, 340:13, 371:23, 395:22, 396:19, 397:2, 404:12, 421:24, 431:21, 432:9, 432:12, 432:14, 432:18, 436:8, 437:18, 437:21, 438:14, 438:17, 438:21, 440:17, 442:8, 450:9, 450:12, 469:6, 482:7, 482:20, 483:20, 483:23, 483:25, 484:5, 484:21, 485:6, 485:10, 485:16, 485:20, 486:16, 487:10, 487:13, 488:22, 489:1, 515:20, 516:4, 517:4, 517:9, 518:1, 518:10, 521:3
Fiegen [14] - 272:24, 384:4, 395:21, 417:22, 420:25, 421:23, 421:24, 431:20, 433:20, 434:10, 442:7, 450:10, 469:5, 492:17
Field [1] - 258:5
field [15] - 269:14, 270:16, 270:20, 296:6, 303:14, 311:15, 316:3, 334:21, 335:23, 342:9, 342:17, 343:1, 376:20, 377:12, 513:16
figure [5] - 353:18, 356:7, 437:8, 486:10, 515:11
figured [1] - 296:3
Figures [1] - 257:3
file [9] - 302:1, 334:8, 376:6, 414:2, 414:6, 422:17, 423:17, 433:14, 452:2
filed [7] - 274:14, 393:25, 409:16, 414:25, 454:21, 454:23, 495:21
filing [1] - 394:14
filings [1] - 459:18
Final [2] - 259:6, 259:7
final [5] - 300:17, 421:12, 447:6, 493:13, 501:17
finally [1] - 353:16
financing [2] - 485:18, 491:20
findings [3] - 314:9, 320:17, 320:19
fine [3] - 419:23, 434:9, 476:23
finger [1] - 285:4
finish [1] - 445:17
finished [1] - 513:19
fired [2] - 373:20, 373:24
fireworks [1] - 436:12
firm [1] - 296:5
first [29] - 263:3, 275:6, 276:15, 295:24, 333:11, 352:2, 358:2, 362:5, 364:14, 364:23, 365:3, 365:22, 366:18, 371:9, 409:21, 415:6, 416:3, 416:9, 417:2, 456:10, 463:21, 482:15, 485:24, 486:4, 487:5, 487:18, 505:14, 505:15, 520:22
First [2] - 261:9, 412:2
first-name [1] - 487:5
Fish [20] - 376:24, 376:25, 377:4, 377:5, 378:1, 378:3, 380:7, 380:14, 380:15, 387:5, 389:22, 390:6, 390:10, 391:2, 391:5, 393:10, 393:11, 393:12, 394:13, 402:22
fit [1] - 471:19
five [6] - 280:15, 284:2, 285:19, 286:13, 372:15, 409:11
fix [2] - 307:8, 448:13
fixing [1] - 307:3
Flicker [6] - 257:9, 258:18, 258:20, 259:7, 259:9, 260:8
flicker [141] - 263:6, 263:11, 263:14, 264:14, 265:13, 265:19, 270:9, 270:23, 271:3, 271:4, 272:3, 272:15, 272:19,

273:25, 274:6, 274:18, 278:2, 278:7, 278:10, 278:18, 278:21, 278:22, 278:24, 278:25, 279:2, 279:7, 279:12, 279:15, 279:20, 279:23, 280:1, 280:11, 289:18, 289:20, 291:3, 299:15, 299:18, 299:21, 322:22, 323:15, 329:11, 329:15, 329:22, 330:1, 330:7, 334:25, 336:20, 337:3, 337:20, 337:22, 338:1, 338:10, 338:13, 339:2, 339:4, 339:13, 340:8, 340:9, 340:22, 341:5, 341:8, 341:10, 341:13, 341:16, 341:17, 341:20, 341:21, 341:25, 342:4, 342:10, 342:16, 342:20, 342:24, 343:7, 343:10, 343:15, 343:22, 344:3, 344:4, 344:13, 344:19, 344:21, 346:8, 346:16, 346:23, 347:5, 347:20, 348:1, 348:4, 348:12, 348:15, 350:6, 350:8, 350:11, 350:25, 351:19, 353:7, 354:4, 354:7, 354:11, 354:25, 355:9, 356:13, 358:24, 359:10, 359:13, 359:14, 359:18, 359:23, 360:7, 360:23, 361:1, 363:23, 365:1, 367:23, 368:1, 368:9, 368:13, 368:16, 370:16, 372:18, 428:5, 428:7, 429:16, 430:8, 434:19, 441:2, 444:14, 447:7, 448:10, 462:8, 462:19, 473:3, 473:19, 493:2, 501:23, 501:25

flicker's [1] - 330:11
flickered [1] - 363:7
flickering [4] - 271:10, 289:16, 342:15, 344:2
flies [1] - 399:22
flock [2] - 399:21, 399:22
flooding [3] - 401:6, 401:12, 402:15
Florida [1] - 399:12
flow [2] - 504:11, 504:17
flowchart [1] - 388:22
fluctuations [1] - 503:19
fluffy [1] - 268:15
fly [1] - 391:21
flying [1] - 382:9
focus [8] - 299:21, 300:4, 300:11, 305:12, 317:9, 318:3, 343:8, 424:19
focused [3] - 342:14, 356:6, 500:10
folks [3] - 476:6, 495:7, 501:4
follow [7] - 295:20, 319:13, 410:6, 414:8, 433:25, 443:2, 487:4
follow-up [2] - 295:20, 319:13
following [4] - 252:1, 377:13, 390:15, 443:4
footprint [3] - 456:16, 461:3, 498:7
FOR [1] - 251:5
forbid [1] - 445:20
foresee [1] - 492:13
forgive [2] - 418:5, 442:13
forgot [1] - 508:10
form [5] - 377:20, 443:3, 458:8, 489:6, 497:17
formal [1] - 311:20
formed [1] - 410:21
forms [1] - 410:2
formula [1] - 282:14
formulas [1] - 283:10
forth [11] - 302:17, 310:14, 327:17, 328:7, 400:11, 414:13, 419:16, 476:9, 480:10, 502:20, 512:25
forward [6] - 263:4, 394:8, 395:6, 482:11, 488:18, 492:16
Foss [1] - 252:3
fossil [1] - 513:1
foundation [3] - 292:23, 292:24, 294:9
four [11] - 280:15, 285:21, 286:2, 290:4, 291:1, 291:9, 291:15, 398:15, 400:25, 497:3
Fourth [4] - 313:8, 436:5, 436:6, 436:13
fourth [2] - 272:10, 436:6
fraction [1] - 342:7
frame [4] - 346:10, 348:20, 365:14, 423:12
frankly [3] - 331:19, 415:20, 434:6
free [1] - 385:19
frequencies [5] - 304:1, 304:14, 307:25, 308:7, 516:25
frequency [23] - 301:16, 303:22, 306:7, 306:13, 306:16, 306:20, 306:24, 306:25, 307:21, 308:2, 314:13, 317:3, 317:10, 317:13, 357:8, 357:14, 357:19, 364:25, 385:11, 505:10, 505:12, 506:10, 511:10
Frequency [6] - 257:18, 258:11, 258:12, 259:16, 259:18, 260:21
fresh [1] - 504:10
freshly [2] - 288:9, 314:22
friendly [3] - 429:19, 430:6, 430:8
front [24] - 271:17, 288:25, 295:1, 345:18, 346:12, 357:10, 357:12, 359:5, 359:20, 367:6, 369:15, 421:22, 424:15, 439:19, 453:20, 453:21, 454:17, 468:4, 487:18, 495:9, 506:2, 515:5, 517:3
frozen [2] - 504:18, 504:21
fudge [1] - 269:2
fuel [1] - 513:1
full [7] - 270:24, 271:2, 416:9, 416:14, 418:11, 491:10, 494:8
fully [1] - 419:25
functioning [1] - 419:15
funded [1] - 319:17
FURTHER [1] - 262:15
future [6] - 403:18, 418:25, 419:21, 456:20, 457:14, 458:10

G

Game [5] - 377:5, 380:15, 387:5, 393:11, 394:13
game [2] - 379:16, 414:17
garage [1] - 475:5
GARRY [2] - 255:10, 424:2
Garry [8] - 260:16, 423:21, 424:2, 424:5, 424:13, 430:17, 430:20, 439:23
GARY [1] - 251:11
Gary [8] - 300:16, 457:20, 469:7, 475:13, 475:25, 478:8, 479:21, 484:19
gas [5] - 338:17, 373:20, 373:24, 513:5
gas-fired [2] - 373:20, 373:24
gather [3] - 277:25, 282:11, 498:7
gathered [2] - 340:9, 458:6
GE [4] - 259:11, 454:5, 455:4
gee [1] - 404:22
geese [1] - 381:8
general [10] - 310:18, 317:17, 332:7, 411:3, 452:15, 452:17, 498:14, 500:14, 503:9, 520:1
generalization [1] - 468:5
generally [6] - 268:18, 281:25, 324:11, 387:19, 494:25, 519:25
generate [3] - 280:20, 280:21, 289:21
generating [2] - 289:23, 403:20
generator [1] - 325:14
Generator [1] - 258:23
generators [1] - 513:4
gentleman [3] - 474:9, 475:9, 490:12
gentleman's [1] - 466:2
George [1] - 494:11
German [26] - 345:15, 345:16, 346:16, 346:24, 347:15, 348:4, 348:21, 348:23, 349:12, 350:22, 351:3, 352:6, 352:9, 352:11, 352:13, 352:14, 353:22, 353:23, 354:8, 354:24, 355:5, 360:8, 360:16, 361:21, 363:4
Germans [2] - 341:16, 347:21
Germany [8] - 346:18, 347:21, 348:1, 348:5, 348:18, 364:1, 364:2, 364:8
given [8] - 269:14, 292:4, 311:5, 312:21, 335:24, 380:13, 443:10, 503:15
glad [3] - 275:17, 356:20, 473:20
global [1] - 411:3
goal [2] - 509:13, 510:13
Godfather's [1] - 425:20
goodness [1] - 400:4
Goodwin [6] - 420:5, 424:4, 424:8, 424:9, 424:11, 439:13
Google [2] - 464:6, 491:10
govern [1] - 345:4
government [2] - 432:24, 432:25
governmental [1] - 343:12
grabbing [1] - 281:25

grad [1] - 363:13
graduate [2] - 357:23, 363:5
graduated [2] - 301:23, 452:23
grain [2] - 419:15, 419:18
Grand [1] - 259:6
grandchild [1] - 436:2
grandchildren [2] - 435:25, 436:12
Grant [17] - 259:7, 260:4, 262:5, 276:12, 276:16, 276:19, 276:24, 277:3, 277:7, 290:3, 290:7, 290:25, 291:10, 291:18, 292:4, 292:22, 350:9
GRANT [1] - 251:5
grant [1] - 418:7
granted [2] - 422:15, 425:5
granular [2] - 504:18, 504:21
grass [3] - 268:6, 278:19, 518:12
grassland [1] - 380:8
grassland/wetland [2] - 378:2, 380:8
grasslands [1] - 378:1
grateful [1] - 313:23
gravel [2] - 344:10, 492:4
gray [1] - 519:21
great [8] - 263:2, 267:8, 289:7, 387:16, 404:19, 434:8, 440:17, 478:13
greater [8] - 304:20, 305:11, 305:16, 308:6, 327:23, 344:5, 383:25
Greber [13] - 260:18, 308:9, 308:10, 413:9, 413:13, 413:16, 413:20, 413:21, 413:23, 415:23, 416:8, 416:13, 418:9
green [1] - 379:3
greenhouse [11] - 264:5, 277:22, 278:12, 279:25, 286:19, 337:19, 337:23, 338:3, 338:17, 338:18
greenways [1] - 279:4
Greg [1] - 251:14
grew [1] - 471:23
ground [23] - 269:7, 281:25, 282:16, 282:25, 283:8, 287:2, 410:3, 504:3, 504:10, 505:5, 505:8, 505:12, 505:25, 506:1, 506:4, 506:6, 506:9, 516:16, 516:22, 517:5, 517:19, 518:11
grounds [3] - 409:18, 410:8, 418:21
groundwater [1] - 387:17
groundwork [1] - 469:25
group [3] - 301:8, 301:12, 334:3
grouse [1] - 377:17
GS [1] - 461:12
guarantee [4] - 369:11, 369:14, 406:21, 428:15
guaranteed [1] - 369:14
guess [18] - 264:16, 274:21, 291:5, 299:25, 318:14, 319:15, 324:14, 370:2, 404:11, 407:21, 417:17, 420:15, 422:14, 423:4, 423:6, 427:16, 450:13, 481:7
guidance [3] - 351:8, 351:11, 351:12
Guidance [1] - 377:1
guide [2] - 362:13, 399:6
guideline [1] - 507:15
Guidelines [3] - 258:11, 376:24, 380:12
guidelines [5] - 317:9, 376:23, 377:9, 380:13, 500:9
guy [1] - 475:4
guys [1] - 450:5

H

habitat [23] - 377:16, 377:17, 377:18, 388:19, 391:14, 391:16, 391:17, 391:18, 391:20, 391:25, 392:2, 392:25, 401:2, 401:17, 401:19, 401:23, 401:24, 402:5, 402:12, 402:14, 402:15, 402:25
Habitat [1] - 257:6
HALEY [1] - 254:3
Haley [19] - 257:12, 259:5, 260:6, 262:9, 262:12, 266:9, 277:21, 300:19, 308:12, 308:19, 318:21, 319:8, 337:18, 337:25, 338:12, 340:3, 341:24, 363:7, 503:24
Haley's [4] - 310:22, 337:15, 340:5, 353:25
half [12] - 272:4, 285:5, 292:16, 293:13, 294:6, 332:5, 378:8, 379:25, 431:4, 431:6, 509:23, 510:21
half-mile [2] - 431:4, 431:6
hand [1] - 296:9
handed [1] - 425:13
handled [1] - 408:12
hands [1] - 281:19
handwriting [1] - 423:5
hang [1] - 431:23
HANSON [110] - 251:11, 266:9, 266:11, 266:24, 267:7, 267:10, 267:13, 267:18, 267:21, 268:1, 268:5, 268:20, 269:1, 269:9, 269:15, 269:23, 270:7, 270:11, 271:1, 271:11, 271:21, 272:4, 272:23, 316:10, 316:15, 316:17, 317:15, 317:23, 318:5, 318:8, 318:19, 319:1, 319:12, 325:25, 326:2, 326:9, 326:17, 326:25, 327:21, 328:1, 328:11, 328:24, 329:6, 371:24, 372:1, 372:5, 373:13, 374:13, 396:21, 396:23, 396:25, 397:3, 397:8, 397:13, 397:17, 397:21, 397:25, 398:3, 398:10, 398:20, 399:1, 399:10, 399:14, 399:20, 399:25, 400:4, 400:15, 401:1, 401:10, 401:14, 402:1, 403:8, 403:15, 404:10, 404:18, 405:21, 406:19, 406:22, 417:25, 421:2, 421:10, 421:14, 422:1, 423:11, 423:18, 431:12, 432:15, 432:20, 433:5, 433:7, 433:17, 433:20, 442:10, 442:13, 442:20, 444:24, 469:11, 469:14, 469:25, 471:16, 474:24, 475:20, 476:5, 476:21, 476:23, 477:17, 478:12, 514:1, 520:20, 521:2
Hanson [21] - 266:7, 281:22, 287:16, 310:24, 325:24, 326:1, 331:14, 371:25, 396:2, 396:20, 406:10, 417:24, 421:25, 431:11, 436:24, 437:25, 442:9, 469:8, 482:16, 513:25, 514:6
Hanson's [1] - 335:25
happy [6] - 273:16, 313:24, 362:8, 363:15, 405:19, 418:12
harbor [1] - 440:20
hard [2] - 427:21, 431:23
harder [2] - 461:8, 483:12
Hart [4] - 257:15, 257:15, 258:22, 274:5
HART [1] - 253:9
Harvard [1] - 322:12
Harvest [5] - 262:23, 262:24, 286:8, 286:12, 492:10
hasten [1] - 500:21
hazard [3] - 331:4, 509:8, 519:1
head [8] - 283:23, 284:1, 287:20, 293:4, 295:2, 346:3, 367:8, 451:8
headed [1] - 473:11
health [45] - 306:1, 322:2, 322:7, 322:24, 323:4, 323:16, 324:6, 324:8, 324:12, 324:14, 324:17, 329:13, 329:18, 329:20, 330:4, 330:10, 330:23, 330:25, 333:8, 333:15, 333:22, 333:24, 334:4, 335:4, 335:7, 337:5, 356:6, 356:11, 358:10, 358:19, 360:14, 360:17, 360:18, 360:25, 361:2, 361:3, 362:20, 365:19, 368:20, 369:3, 369:19, 374:6, 509:8, 519:1
Health [21] - 258:9, 258:10, 258:16, 259:15, 259:15, 322:12, 326:13, 326:23, 327:4, 327:8, 327:18, 328:9, 332:3, 342:19, 359:22, 361:13, 368:7, 369:1, 509:9, 519:2, 519:5
Health-Based [1] - 258:10
health-related [1] - 322:2
hear [21] - 268:12, 307:16, 307:17, 311:1, 328:12, 329:1, 357:2, 357:4, 373:13, 403:8, 418:24, 426:7, 436:16, 467:12, 473:2, 473:13, 474:11, 487:16, 505:11, 520:21
heard [16] - 262:23, 263:7, 264:12, 267:24, 332:10,

383:12, 407:16, 418:18, 419:6, 478:19, 482:21, 485:1, 509:16, 509:25, 517:13, 520:24
Hearing [1] - 257:22
hearing [16] - 262:2, 290:19, 299:5, 326:21, 333:17, 374:25, 407:13, 409:14, 423:12, 437:23, 437:24, 443:21, 456:13, 460:7, 495:2, 521:24
hearings [5] - 270:14, 333:16, 348:11, 370:15, 429:23
hearsay [7] - 410:6, 410:16, 414:20, 416:1, 416:2, 417:5, 418:17
heat [1] - 429:9
heaven [1] - 445:20
height [3] - 282:22, 366:22, 505:17
held [1] - 252:2
hello [1] - 508:19
help [9] - 265:11, 272:8, 273:16, 293:12, 293:15, 390:20, 396:8, 438:10, 444:20
helpful [2] - 288:3, 389:14
helping [1] - 273:15
hemispherical [1] - 516:18
HEREBY [1] - 522:8
Heritage [1] - 387:4
hertz [5] - 303:22, 303:25, 304:6, 505:9, 506:11
HESSLER [1] - 256:3
Hessler [24] - 260:7, 260:8, 260:9, 274:15, 274:17, 274:21, 275:8, 275:14, 275:22, 302:15, 351:7, 493:21, 494:4, 494:8, 494:10, 494:13, 494:17, 497:15, 508:13, 508:18, 514:2, 515:20, 520:23, 521:17
Hessler's [1] - 364:21
HH [2] - 259:11, 259:11
hi [4] - 355:21, 508:18, 512:2, 512:3
Hidewood [1] - 387:1
high [13] - 288:22, 288:24, 289:2, 303:25, 328:6, 328:18, 328:22, 331:5, 381:8, 506:8, 513:3, 516:24
higher [12] - 288:13, 298:16, 312:23, 319:10, 319:11, 336:20, 379:7, 476:7, 477:4, 499:3, 499:17, 505:11
highest [2] - 265:13, 474:14
highly [3] - 500:23, 503:9, 513:6
highway [3] - 312:4, 384:14, 385:3
HILARY [1] - 256:10
Hilary [1] - 261:13
himself [1] - 426:9
hire [1] - 513:19
hired [1] - 320:1
Historic [1] - 377:6
historical [1] - 386:17
Historical [2] - 259:21, 259:23
historically [2] - 399:16, 466:10
history [2] - 461:1, 471:20
hit [1] - 339:12
hits [3] - 338:16, 339:14, 339:21
hoist [1] - 429:8
hold [4] - 285:4, 333:20, 333:25, 439:14
home [50] - 278:11, 289:6, 292:13, 306:18, 307:2, 307:8, 307:18, 307:22, 308:4, 308:10, 324:24, 325:5, 325:9, 338:6, 338:14, 339:7, 339:13, 339:18, 341:11, 341:17, 341:20, 341:21, 341:24, 342:5, 342:8, 342:15, 342:21, 342:25, 343:4, 343:7, 343:14, 343:15, 355:14, 365:2, 367:24, 368:13, 368:16, 369:18, 372:13, 441:3, 441:5, 458:11, 472:12, 473:22, 475:25, 476:3, 477:13
home's [1] - 337:24
homeowners [1] - 365:15
homes [21] - 280:10, 290:25, 319:11, 334:25, 335:2, 350:11, 351:17, 365:12, 365:15, 368:1, 368:24, 370:16, 370:21, 455:15, 460:9, 460:12, 472:25, 482:23, 506:15, 507:1, 509:3
honest [2] - 473:10, 481:20
honestly [3] - 435:5, 435:13, 445:18
honored [1] - 459:13
hopefully [4] - 262:13, 402:18, 423:8, 423:9
horse [1] - 290:23
Hospital [1] - 321:22
host [1] - 451:3
hour [2] - 353:24, 367:7
hours [35] - 263:11, 263:13, 264:18, 265:2, 265:13, 265:20, 266:3, 274:3, 274:7, 329:12, 330:7, 334:25, 348:11, 349:20, 350:10, 350:25, 351:22, 353:4, 353:19, 354:3, 354:11, 354:25, 355:3, 359:9, 359:13, 359:25, 360:3, 360:4, 360:6, 360:23, 361:1, 370:16, 370:18, 444:14, 444:15
house [45] - 263:12, 263:18, 270:16, 272:1, 278:3, 278:5, 278:9, 278:11, 278:17, 279:4, 279:15, 279:21, 279:24, 289:12, 292:21, 295:8, 335:14, 338:19, 338:25, 339:5, 339:11, 339:12, 339:14, 339:17, 339:18, 339:21, 339:22, 339:25, 342:5, 342:6, 343:10, 429:6, 429:11, 429:13, 435:17, 440:25, 467:5, 475:10, 475:21, 476:7, 506:2, 507:4, 515:5
houses [5] - 293:17, 295:10, 338:15, 468:23, 507:7
hub [2] - 282:22, 505:17
Hubner [1] - 336:5
Hueck [1] - 251:14
human [1] - 266:12
hung [1] - 432:21
husband [1] - 437:23
hybridization [1] - 350:22
hydrologic [1] - 387:18
hypothetical [3] - 320:6, 330:13, 353:25

I

I-1 [6] - 260:16, 424:20, 424:24, 425:2, 425:8, 427:11
I-2 [6] - 260:16, 425:23, 426:18, 427:11, 427:12, 440:3
I-29 [1] - 384:12
I-3 [4] - 260:17, 427:1, 427:11, 427:12
I-4 [2] - 260:17, 413:19
I-5 [2] - 260:18, 413:19
I-6 [3] - 260:18, 439:17, 441:10
I3 [1] - 440:1
ice [12] - 268:22, 282:4, 282:5, 282:6, 282:7, 282:10, 282:12, 288:12, 384:22, 504:24, 504:25, 518:11
ID [2] - 259:8, 259:10
idea [2] - 266:16, 295:9
ideally [2] - 500:22, 502:13
identification [2] - 295:16, 495:25
identified [23] - 337:25, 338:12, 410:9, 455:17, 456:6, 456:9, 456:12, 460:22, 461:3, 463:17, 464:9, 464:10, 464:14, 465:4, 466:23, 467:1, 474:6, 475:13, 477:24, 478:7, 478:8, 481:5, 491:3
Identify [1] - 258:21
identify [7] - 388:23, 390:11, 391:6, 394:9, 463:20, 464:4, 495:12
identifying [3] - 297:19, 404:20, 464:2
ifs [1] - 405:4
ignored [1] - 374:3
II [55] - 251:4, 251:9, 251:17, 259:6, 259:7, 259:8, 259:9, 259:22, 262:4, 262:22, 276:15, 277:11, 283:25, 284:5, 285:7, 291:11, 291:22, 291:25, 293:19, 297:4, 301:13, 302:16, 314:2, 314:12, 314:17, 314:21, 321:24, 323:1, 333:10, 333:11, 333:12, 334:7, 334:22, 337:5, 356:21, 357:7, 375:12, 375:15, 379:20, 383:17, 385:18, 386:18, 391:11, 393:22, 395:13, 438:6, 438:8, 440:7, 440:8, 483:20, 492:9, 492:10, 510:2, 510:11, 520:2
II's [1] - 395:1
III [1] - 492:10
illustrate [1] - 517:17
image [1] - 293:3
imagine [1] - 267:19
immediate [1] - 468:1
immediately [2] - 506:1, 506:4
impact [20] - 264:3, 301:21, 329:19, 329:20, 358:10, 358:19, 360:1, 360:18, 361:2, 361:3, 370:7,

392:20, 408:6, 452:20, 455:12, 460:8, 488:9, 494:20, 513:14
Impact [2] - 258:7, 259:13
impacted [2] - 402:24, 408:23
impacting [1] - 367:1
impacts [13] - 274:6, 329:13, 368:19, 368:20, 369:3, 377:10, 378:5, 378:6, 378:10, 380:17, 380:23, 391:12, 520:16
impairing [1] - 367:1
impartial [1] - 494:23
impetus [1] - 351:3
implement [1] - 393:23
imply [1] - 421:8
importance [1] - 517:17
important [9] - 265:21, 282:15, 299:4, 323:11, 349:2, 373:15, 396:5, 396:9, 405:8
importantly [1] - 448:12
imported [1] - 351:4
imposed [2] - 337:3, 337:4
impossible [2] - 315:12, 428:1
impressed [3] - 468:11, 469:17, 469:21
improve [2] - 496:20, 502:23
improved [1] - 475:19
improvement [1] - 509:24
improvements [2] - 429:5, 475:4
IN [2] - 251:4, 251:5
in-field [1] - 513:16
inaccurate [1] - 268:6
inaudible [11] - 303:20, 303:23, 304:7, 304:8, 304:16, 305:6, 305:24, 307:9, 307:12, 329:5, 385:11
INCE [1] - 367:18
Inch [1] - 328:14
Incl [1] - 258:12
include [25] - 279:3, 284:17, 284:24, 286:1, 286:7, 291:3, 293:17, 295:4, 295:6, 296:21, 297:19, 306:3, 318:22, 347:10, 347:11, 357:16, 376:8, 377:13, 377:25, 380:6, 383:8, 395:12, 398:13, 418:9, 447:5
included [25] - 262:18, 262:21, 262:24, 276:20, 277:4, 283:20, 285:9, 286:8, 286:10, 290:6, 291:10, 291:23, 293:24, 326:14, 327:18, 352:14, 371:14, 413:4, 422:22, 457:20, 458:20, 460:19, 465:5, 478:1, 490:20
includes [4] - 296:22, 326:11, 382:4, 400:8
Including [1] - 259:16
including [14] - 290:11, 301:22, 322:22, 348:7, 358:21, 375:18, 375:25, 377:4, 385:11, 393:4, 393:10, 394:4, 394:8, 505:8
incoherent [1] - 270:22
inconsistent [1] - 404:4
incorporate [1] - 496:10
incorrectly [1] - 412:16
increase [5] - 309:17, 329:22, 470:24, 476:16, 476:24
increased [1] - 328:10
increasing [2] - 287:24, 510:17
incredible [1] - 403:11
independent [3] - 303:8, 303:13, 318:3
indicate [1] - 401:20
indicated [6] - 281:24, 297:18, 328:9, 335:11, 345:2, 434:11
indicates [1] - 334:21
indicating [3] - 296:19, 308:20, 379:6
indicating) [4] - 431:3, 431:8, 437:2, 440:18
individual [4] - 264:1, 264:2, 280:23, 364:7
individuals [3] - 316:2, 336:25, 410:10
industry [3] - 328:6, 403:21, 449:18
inert [1] - 358:4
influence [10] - 320:7, 456:11, 458:9, 470:12, 471:25, 485:25, 486:1, 489:25, 492:13, 515:8
influenced [3] - 455:23, 457:12, 468:1
influences [2] - 455:14, 474:19
informal [1] - 354:22
informally [1] - 405:5
Information [1] - 258:21
information [17] - 281:17, 291:4, 305:5, 318:11, 327:18, 386:16, 387:3, 391:10, 454:24, 457:18, 457:19, 458:15, 458:20, 461:15, 470:3, 485:14, 488:4
information's [1] - 281:19
informational [1] - 346:21
informative [2] - 420:21, 421:8
informed [1] - 419:25
infrasound [39] - 301:16, 303:1, 303:18, 303:20, 303:21, 304:1, 304:3, 304:5, 304:16, 305:5, 305:21, 305:24, 306:20, 306:24, 307:6, 307:9, 307:11, 307:13, 307:16, 307:21, 308:2, 308:4, 308:7, 314:14, 317:3, 317:7, 317:9, 317:14, 328:24, 329:4, 357:8, 357:13, 357:19, 364:25, 385:12, 511:10, 512:10, 512:11, 512:12
Infrasound [7] - 257:19, 258:11, 258:12, 259:16, 259:17, 259:18, 260:21
infrastructure [4] - 377:25, 380:20, 451:4, 453:13
initial [3] - 351:7, 354:8, 471:3
initiated [1] - 326:15
input [1] - 501:23
Input [1] - 257:22
inquiry [1] - 340:10
insects [1] - 313:5
inside [14] - 278:22, 279:15, 279:21, 307:7, 307:18, 308:4, 339:13, 339:18, 341:20, 341:24, 343:7, 343:14, 368:12, 368:13
inspected [1] - 466:1
inspection [1] - 489:12
Installations [1] - 258:10
instance [2] - 328:15, 470:16
instantly [2] - 344:12, 344:15
instead [2] - 297:25, 335:22
instilling [1] - 400:15
Institute [1] - 452:25
institute [1] - 367:19
instrumental [1] - 359:2
instrumentation [2] - 315:24, 512:17
instruments [1] - 512:19
insulated [1] - 429:6
insulation [1] - 429:9
intended [2] - 443:24, 507:13
intensity [5] - 270:22, 271:5, 271:10, 272:3, 272:15
Intensive [1] - 377:21
intent [3] - 414:22, 414:23, 520:15
intention [2] - 419:20, 419:22
interaction [5] - 285:17, 285:19, 285:20, 285:22, 286:10
Interconnection [1] - 258:23
interest [4] - 355:9, 355:11, 471:3, 507:5
interested [6] - 320:17, 448:4, 448:5, 448:21, 448:22, 464:22
interesting [9] - 270:8, 300:9, 399:14, 410:17, 461:2, 465:22, 467:8, 488:11, 488:15
interference [2] - 434:21, 505:24
interior [1] - 306:18
interject [1] - 290:17
intermix [1] - 366:14
internal [1] - 322:9
International [3] - 323:6, 324:20, 453:5
internationally [1] - 341:12
interpretation [2] - 370:5, 480:13
interrupting [1] - 289:15
interstate [12] - 279:8, 279:12, 279:13, 312:6, 343:18, 343:23, 344:1, 344:10, 384:5, 384:7, 384:17, 384:24
intervening [1] - 506:4
intervenor [3] - 457:18, 458:14, 458:17
Intervenor [9] - 260:9, 260:12, 261:7, 261:7, 261:8, 261:8, 261:9, 294:10, 465:1
Intervenors [11] - 251:19, 276:12, 291:13, 318:6, 409:22, 427:7, 440:9, 440:10, 480:25, 487:14, 497:15
Intervenors' [2] - 261:5, 296:19
INTERVENORS' [2] - 255:9, 260:15
intervention [1] - 427:3
interview [11] - 455:19, 457:6, 462:10, 462:13, 470:10, 470:15,

475:9, 476:2, 484:23, 485:11, 485:17
interviewed [8] - 457:8, 457:9, 457:10, 462:22, 467:3, 487:3, 491:12
interviewing [1] - 486:10
interviews [1] - 472:10
introduced [2] - 322:22, 426:9
intuition [1] - 404:4
intuitively [1] - 268:5
Inventory [1] - 259:22
investigate [4] - 340:6, 391:11, 457:2, 476:1
investigated [1] - 489:23
investigation [2] - 486:4, 486:9
investigators [1] - 327:11
involved [5] - 282:24, 309:19, 388:21, 468:22, 494:22
IR [1] - 260:12
ISO [5] - 280:18, 289:22, 295:4, 295:6, 503:25
isolated [1] - 497:4
isolating [1] - 306:10
isopleth [1] - 338:9
issue [8] - 285:15, 320:11, 387:13, 403:11, 407:17, 448:13, 462:19, 479:4
issued [1] - 347:16
issues [9] - 301:16, 322:2, 323:16, 327:5, 331:15, 387:17, 500:24, 501:24, 506:20
item [3] - 307:11, 331:13, 399:8
items [5] - 278:9, 398:9, 422:22, 424:16, 439:25
iterative [1] - 380:3
itself [23] - 306:12, 307:20, 315:20, 335:18, 338:7, 339:12, 339:15, 340:6, 342:11, 342:22, 343:11, 343:14, 351:14, 358:7, 365:9, 365:10, 365:19, 366:20, 368:17, 372:7, 373:11, 512:12, 515:9

J

January [7] - 302:3, 334:11, 345:21, 376:11, 454:22, 457:2, 507:16
Japanese [1] - 317:9
Jay [4] - 257:12, 259:5, 260:6, 273:12
JAY [1] - 254:3
JE-1 [1] - 465:9
Jefferson [1] - 322:8
JH-R-1 [1] - 260:7
JH-R-2 [1] - 260:8
JH-R-3 [1] - 260:9
JH-S-1 [1] - 259:6
JH-S-2 [1] - 259:7
JH-S-3 [1] - 259:8
JH-S-4 [1] - 259:9
job [8] - 452:14, 452:18, 452:19, 468:20, 469:17, 469:20, 494:15, 494:18
jobs [2] - 484:10, 484:15
Joe [1] - 252:3
joinder [3] - 414:6, 414:25, 418:8
joining [1] - 301:23
joint [1] - 508:24
Jonas [1] - 362:24
journal [1] - 319:23
Judge [2] - 419:14, 419:18
judge [1] - 346:17
judge's [2] - 347:12, 347:14
judgment [1] - 286:5
judicially [1] - 419:11
July [7] - 302:2, 313:8, 376:7, 436:5, 436:6, 436:7, 436:13
jump [2] - 384:5, 475:17
jumped [2] - 476:20, 476:21
jumping [1] - 476:8
juncture [1] - 444:25
junior's [1] - 294:4
jurisdiction [2] - 348:9, 354:7
jurisdictions [4] - 350:6, 350:13, 355:4, 355:6

K

Kaitlyn [1] - 251:15
karen [1] - 251:13
KEARNEY [1] - 256:13
Kearney [4] - 261:12, 261:12, 394:24, 404:3
Kearney's [2] - 397:4, 406:12
keep [8] - 330:6, 383:3, 401:16, 402:17, 412:4, 484:23, 484:24, 521:6
keeping [1] - 404:7
kept [2] - 475:9, 486:9
key [3] - 304:25, 332:9, 332:15
kidding [3] - 450:15, 450:16
Kiel [1] - 362:15
KIEL [1] - 362:15
kilometer [2] - 284:24, 293:23
kilometers [11] - 284:15, 284:18, 284:22, 291:12, 291:14, 293:20, 297:20, 297:25, 298:8, 298:25, 299:6
kind [28] - 264:24, 281:25, 285:4, 338:6, 344:3, 345:15, 350:1, 350:19, 354:22, 370:12, 383:3, 401:7, 407:23, 430:25, 434:4, 466:12, 468:21, 483:1, 485:14, 486:5, 488:14, 492:18, 504:13, 505:5, 509:18, 512:5, 518:4, 519:22
kinds [2] - 304:5, 379:16
kitchen [3] - 267:3, 342:3, 505:20
Knopper [1] - 346:2
knowing [1] - 401:16
knowledge [18] - 280:9, 288:4, 288:5, 311:21, 311:22, 311:23, 340:7, 341:4, 343:13, 351:20, 351:21, 357:18, 386:15, 400:3, 454:24, 495:22, 506:19, 519:4
known [4] - 378:8, 379:23, 392:7, 393:5
Kranz [10] - 260:17, 413:16, 413:19, 413:22, 425:13, 425:16, 425:25, 426:18, 431:5, 438:12
Kranz's [3] - 426:22, 435:17, 436:11
Kranzburg [2] - 436:5, 436:6
Kristen [3] - 251:23, 414:4, 451:20
Kristie [2] - 300:15, 340:12
KRISTIE [1] - 251:12

L

lab [1] - 363:6
Lab [1] - 372:12
laboratory [3] - 336:3, 362:9, 362:14
Laboratory [1] - 368:11
laid [1] - 294:9
lake [1] - 379:2
lakes [3] - 288:16, 379:15, 379:22
LAMPETER [1] - 254:10
Lampeter [11] - 257:16, 257:17, 260:10, 300:24, 301:5, 301:10, 302:24, 313:25, 316:13, 346:5, 346:9
Lampeter's [1] - 346:15
Land [4] - 259:9, 260:4, 376:24, 380:12
land [16] - 332:12, 350:1, 358:17, 370:8, 370:10, 370:13, 370:21, 426:9, 432:10, 432:11, 432:12, 438:6, 438:9, 438:11, 438:18, 448:25
Land-Based [2] - 376:24, 380:12
landfill [4] - 358:6, 358:7, 358:11, 358:14
landowner [3] - 386:3, 386:9, 386:10
landowners [2] - 444:10, 468:20
landscape [2] - 336:20, 492:19
language [2] - 409:19, 411:15
Laretta [6] - 260:17, 425:13, 425:18, 426:19, 428:12, 431:5
large [5] - 289:6, 356:17, 373:24, 484:10, 503:15
larger [2] - 412:1, 498:12
largest [1] - 327:9
last [20] - 262:6, 267:21, 275:2, 333:23, 334:2, 334:21, 340:21, 348:10, 349:14, 352:20, 352:25, 382:18, 385:15, 392:11, 416:24, 423:25, 427:25, 451:23, 507:8, 514:13
late [5] - 333:12, 344:8, 348:19, 422:17, 433:12
latest [2] - 274:16, 323:5
latitude [1] - 414:14
laughed [1] - 426:14
law [5] - 348:4, 419:1, 419:10, 433:25, 517:2
Lawrence [13] - 261:15, 261:16, 336:3, 368:11, 372:12, 452:6, 452:10, 452:12, 459:4, 459:17, 482:7, 489:6, 493:15
LAWRENCE [1] - 255:20
laws [2] - 377:1, 377:2
lawyer [5] - 370:17, 410:25, 412:6, 417:9, 418:21
lawyers [1] - 423:16
lay [3] - 292:24, 409:24, 409:25
layer [1] - 268:22
layout [4] - 364:17, 440:24, 497:20, 497:21
lazy [2] - 342:1, 342:11
LCD [1] - 315:16

leaches [1] - 358:4
lead [9] - 294:12, 324:8, 324:14, 324:16, 335:17, 362:16, 363:24, 374:6
leading [1] - 429:20
leads [1] - 374:5
leaned [1] - 416:22
learn [1] - 465:17
learned [1] - 481:19
learning [1] - 317:22
lease [3] - 425:19, 433:2, 438:13
Lease [1] - 260:16
leased [2] - 358:15, 358:17
least [4] - 318:15, 327:6, 354:24, 505:4
leave [3] - 340:16, 441:23, 445:20
leaves [1] - 268:7
leaving [1] - 418:14
led [1] - 334:2
left [3] - 272:3, 294:24, 365:15
legal [18] - 370:4, 409:23, 409:25, 411:20, 411:21, 411:24, 412:5, 415:13, 416:11, 418:17, 419:1, 419:24, 431:23, 458:7, 479:16, 480:3, 480:14
legitimate [1] - 474:19
lek [1] - 377:17
length [1] - 475:1
Lennox [1] - 459:9
less [16] - 268:25, 271:19, 274:6, 279:22, 308:5, 315:16, 327:23, 330:7, 360:5, 369:17, 374:9, 412:13, 430:4, 502:19, 510:25, 517:15
letter [5] - 347:3, 347:8, 389:22, 390:7, 390:21
Letter [6] - 257:19, 257:20, 257:21, 259:21, 259:23
Level [5] - 257:8, 259:8, 259:17, 377:20, 377:21
level [48] - 266:23, 267:3, 295:10, 298:3, 298:10, 303:25, 304:13, 305:15, 309:1, 309:17, 310:2, 310:5, 310:21, 313:6, 318:22, 319:8, 328:24, 330:3, 330:11, 331:4, 332:9, 351:16, 369:6, 370:14, 371:16, 435:1, 442:17, 447:6, 447:18, 448:9, 461:22, 461:23, 462:5, 500:15, 501:5, 503:12, 503:17, 503:18, 510:17, 510:25, 513:3, 513:9, 514:7, 515:5, 515:16, 517:23, 517:24, 520:18
levels [40] - 266:14, 303:21, 304:6, 308:4, 309:5, 311:25, 312:22, 312:25, 316:23, 316:24, 318:24, 318:25, 327:19, 327:22, 328:6, 328:17, 328:18, 329:11, 331:8, 332:13, 336:15, 336:17, 336:19, 339:6, 369:5, 444:18, 447:9, 448:16, 496:18, 499:3, 499:17, 500:15, 502:10, 503:5, 503:16, 507:7, 510:18, 510:20, 512:25, 513:8
LFN [1] - 303:1
licensed [2] - 358:6, 358:14
Life [1] - 258:13
life [2] - 397:14, 448:3
lifting [1] - 510:18
light [17] - 263:8, 271:5, 271:6, 271:16, 271:17, 271:19, 271:24, 272:10, 342:1, 342:7, 343:16, 344:22, 370:8, 370:9, 370:13, 370:21, 434:19
lighter [1] - 312:23
lighting [1] - 336:20
lights [2] - 363:7, 372:17
likelihood [3] - 336:25, 402:4, 501:3
likely [4] - 287:7, 499:4, 499:20, 500:25
limit [21] - 274:2, 274:6, 293:23, 341:16, 347:5, 349:20, 349:25, 350:7, 354:24, 360:5, 360:20, 360:22, 361:4, 367:4, 369:5, 500:19, 500:20, 502:18, 519:12, 521:1
limitation [1] - 315:19
limited [5] - 359:21, 362:18, 430:1, 473:25, 483:17
limiting [2] - 343:9, 359:17
limits [3] - 330:14, 354:7, 466:19
line [25] - 266:13, 276:11, 279:18, 289:12, 289:14, 297:1, 297:2, 303:7, 341:3, 364:16, 364:23, 385:17, 416:3, 416:10, 416:15, 418:11, 428:14, 497:19, 499:1, 499:5, 499:10
lines [10] - 273:21, 280:18, 289:22, 338:9, 412:19, 415:24, 416:3, 416:14, 416:25, 418:10
linked [1] - 335:12
List [1] - 260:5
list [8] - 390:16, 391:8, 443:25, 444:2, 496:24, 504:9, 504:19, 504:23
listed [9] - 290:5, 390:15, 391:8, 414:25, 443:23, 456:17, 463:11, 463:13, 476:8
listen [4] - 328:15, 420:7, 428:20, 478:16
listened [3] - 485:2, 485:4, 516:1
listening [6] - 308:12, 330:21, 331:1, 331:12, 421:3, 503:13
listing [3] - 464:21, 465:14, 486:22
listings [4] - 463:19, 464:1, 464:12, 466:9
lists [1] - 463:23
literature [15] - 288:7, 326:21, 327:10, 329:3, 335:24, 337:2, 342:12, 343:6, 345:23, 357:19, 368:6, 368:23, 369:8, 393:4, 398:6
Literature [1] - 258:16
live [14] - 270:15, 275:21, 295:14, 325:5, 355:13, 431:1, 435:17, 439:12, 456:22, 477:10, 481:25, 484:12, 484:14, 501:4
lived [4] - 371:6, 400:24, 472:12, 472:16
lives [2] - 431:5, 440:15
Living [1] - 258:14
living [15] - 323:2, 327:6, 335:10, 335:17, 335:21, 336:13, 342:13, 358:11, 371:12, 429:14, 458:5, 467:12, 470:17, 473:20, 493:1
LLC [2] - 251:4, 262:4
LLC's [2] - 257:19, 257:20
LNTE [1] - 277:4
local [9] - 312:6, 312:7, 341:14, 361:6, 377:6, 377:22, 408:4, 408:13, 447:22
localized [1] - 349:5
located [10] - 276:16, 278:3, 301:6, 301:11, 366:21, 384:13, 434:22, 464:8, 467:16, 479:7
location [12] - 264:3, 276:18, 293:12, 298:11, 349:16, 456:20, 457:14, 464:5, 473:24, 481:21, 483:15, 520:8
locations [6] - 276:22, 280:13, 496:23, 497:1, 497:4, 498:22
Locations [1] - 260:5
logarithmic [4] - 287:25, 298:5, 308:25, 309:18
logical [1] - 397:18
look [54] - 266:6, 271:16, 286:16, 290:8, 292:18, 293:24, 296:16, 304:25, 309:2, 309:3, 332:7, 340:17, 347:1, 349:8, 351:10, 351:23, 356:18, 359:21, 361:18, 367:5, 368:14, 368:22, 372:8, 373:3, 380:5, 380:11, 380:16, 382:6, 382:7, 392:25, 400:6, 402:10, 403:24, 403:25, 404:25, 428:13, 438:16, 459:17, 461:12, 463:24, 464:8, 466:6, 466:9, 474:5, 480:6, 485:7, 491:22, 492:2, 492:16, 496:7, 505:20
looked [24] - 264:1, 284:3, 285:1, 312:18, 324:21, 327:11, 343:21, 359:22, 382:12, 383:14, 390:2, 391:17, 403:4, 455:21, 455:23, 460:8, 460:9, 464:16, 465:14, 489:21, 490:25, 491:10, 491:23, 514:12
looking [38] - 278:17, 288:15, 290:13, 295:8, 296:18, 297:2, 317:18, 327:16, 333:14, 341:13, 342:13, 343:2, 348:24, 350:20, 352:17, 354:15, 356:10, 368:5, 372:18, 374:10, 378:25, 379:22, 383:5, 383:24, 386:7, 389:17, 391:23,

395:23, 402:8, 403:22, 415:23, 416:5, 475:3, 476:6, 476:15, 484:24, 502:22
looks [5] - 316:25, 317:6, 352:18, 415:25, 417:3
loose [1] - 414:16
loosely [1] - 354:8
lose [2] - 477:2, 477:3
losing [2] - 486:25, 521:6
loss [5] - 405:8, 476:17, 506:5, 516:19, 516:20
lost [2] - 436:1, 477:2
loud [4] - 308:23, 309:11, 309:13, 362:6
louder [2] - 328:15, 498:15
loudness [1] - 309:4
love [2] - 434:6, 436:6
low [26] - 298:3, 301:16, 303:25, 306:7, 306:13, 306:16, 306:20, 306:24, 306:25, 307:21, 308:2, 314:13, 317:3, 317:9, 317:13, 336:17, 344:1, 357:8, 357:14, 357:19, 364:25, 385:11, 504:14, 510:3, 510:5, 511:10
Low [6] - 257:18, 258:11, 258:12, 259:16, 259:18, 260:21
Low-Frequency [2] - 258:12, 259:16
lower [9] - 277:2, 277:5, 298:11, 298:13, 312:14, 313:3, 500:22, 507:11, 512:6
lunch [2] - 374:24, 387:12
Lyndon [1] - 301:24

M

ma'am [1] - 340:14
machines [1] - 308:3
Machining [1] - 429:9
magistrate [1] - 419:13
MAI [1] - 453:1
mailed [1] - 487:4
Main [1] - 251:25
main [2] - 351:3, 429:14
maintain [1] - 519:11
maintained [3] - 475:10, 500:16, 521:1
major [4] - 307:21, 327:3, 329:20, 515:8
majority [1] - 392:6
man [4] - 429:8, 485:8, 486:5, 486:19
manage [3] - 301:7, 301:12, 375:24
managed [2] - 387:4, 486:2
management [3] - 333:9, 376:2, 378:9
managing [1] - 375:19
mandates [1] - 414:7
manufacturer [3] - 319:5, 319:9, 454:4
manufacturing [1] - 328:8
map [16] - 284:4, 285:1, 286:16, 288:15, 294:13, 295:4, 296:14, 296:15, 296:18, 296:19, 297:3, 312:8, 378:22, 431:1, 461:9, 464:6
Map [3] - 260:4, 260:13, 260:13
Maps [1] - 259:3
maps [8] - 279:23, 280:16, 289:21, 292:18, 293:24, 295:6, 295:8, 440:10
March [3] - 348:14, 390:24, 390:25
Mark [5] - 257:13, 257:13, 259:12, 260:11, 509:17
MARK [1] - 253:17
marked [15] - 273:13, 295:16, 302:2, 302:4, 376:8, 376:10, 376:12, 424:16, 424:24, 425:23, 439:17, 440:20, 453:19, 454:15, 495:24
market [29] - 452:20, 455:12, 458:4, 459:24, 460:3, 460:8, 464:15, 470:21, 471:12, 471:13, 471:15, 471:17, 471:25, 472:10, 473:7, 474:22, 475:18, 477:10, 477:14, 479:21, 482:18, 482:22, 483:19, 484:8, 488:9, 490:24, 491:5, 492:13
Market [1] - 259:13
marketplace [1] - 471:14
MAROUS [1] - 253:13
MaRous [7] - 259:12, 260:10, 407:15, 407:17, 478:17, 482:5, 485:1
married [1] - 437:22
Mary [1] - 308:9
mask [1] - 299:10
Massachusetts [2] - 301:7, 301:12
master [1] - 322:6
master's [2] - 333:21, 376:3
match [2] - 269:13, 464:5
material [5] - 358:5, 480:7, 480:13, 481:2, 486:23
materials [1] - 268:4
math [1] - 284:9
matter [21] - 252:2, 262:3, 283:11, 286:5, 288:24, 288:25, 338:18, 339:5, 339:11, 350:4, 356:12, 410:19, 411:5, 415:9, 435:9, 444:3, 474:12, 481:8, 501:8, 515:10, 522:10
MATTER [1] - 251:4
matters [3] - 411:21, 412:10, 441:10
Matthew [1] - 252:2
maximum [2] - 304:22, 384:1
Maynard [2] - 301:6, 301:11
MCCOMSEY [1] - 522:5
McComsey [3] - 251:24, 522:17, 522:18
McCunney [9] - 259:13, 306:4, 321:12, 321:15, 321:21, 323:19, 335:11, 361:13, 368:8
MCCUNNEY [1] - 254:14
McDonald [1] - 426:7
McDonaldson [2] - 425:19, 426:9
McPherson [1] - 260:22
mean [30] - 269:19, 281:4, 281:15, 285:13, 300:9, 328:6, 329:15, 347:19, 351:5, 353:21, 356:10, 357:2, 358:2, 367:4, 385:24, 400:16, 401:4, 421:3, 421:7, 421:17, 423:2, 471:13, 472:6, 477:12, 483:1, 492:11, 503:16, 503:18, 517:24
meaning [4] - 328:5, 353:24, 416:3, 417:15
means [6] - 279:2, 353:12, 427:17, 434:18, 463:8, 514:18
meant [1] - 471:13
measurable [5] - 307:23, 456:3, 467:15, 471:18, 485:23
measure [9] - 284:10, 296:2, 304:6, 304:21, 461:24, 461:25, 503:14, 506:10, 520:6
measured [9] - 267:8, 269:14, 304:23, 316:23, 318:24, 325:1, 327:14, 512:18, 517:24
measurement [7] - 269:21, 296:5, 304:9, 311:9, 332:9, 466:21, 512:17
Measurement [2] - 259:17, 260:21
measurements [9] - 269:19, 296:6, 305:11, 310:7, 310:8, 311:11, 311:13, 311:22, 512:25
Measures [2] - 258:4, 258:9
measures [3] - 327:12, 377:25, 496:15
measuring [1] - 515:6
mechanical [3] - 267:19, 269:16, 306:19
media [1] - 319:25
medical [7] - 322:8, 322:10, 328:3, 329:3, 355:25, 361:7, 426:22
medically [1] - 413:22
medicine [2] - 322:9, 322:12
meet [3] - 425:20, 468:22, 502:18
meeting [1] - 433:14
meetings [4] - 367:21, 433:10, 433:11, 433:12
meets [1] - 334:22
megawatt [4] - 265:11, 265:22, 427:23
megawatts [2] - 274:1, 498:16
Meierhenry [2] - 459:11, 459:12
member [2] - 367:18, 457:5
members [2] - 365:23, 366:1
memory [1] - 390:3
mention [7] - 306:6, 306:7, 307:13, 360:12, 360:13, 425:11, 465:9
mentioned [9] - 272:16, 290:9, 383:19, 392:14, 393:20, 426:12, 458:14, 487:7, 502:8
mentioning [1] - 305:2
mentions [1] - 346:15
menus [1] - 315:18
merely [1] - 343:3
met [2] - 459:7, 465:15
metal [1] - 315:21
meteorological [1] - 353:15
Meteorological [2] - 258:19, 259:19
meter [10] - 282:22, 289:19, 338:20, 338:21, 339:15, 382:7, 382:9, 505:17, 515:6
meters [1] - 272:21
methodology [3] - 488:14, 514:25,

515:1
metric [1] - 332:14
Meyer [1] - 493:25
MICHAEL [1] - 253:13
Michael [2] - 259:12, 260:10
mid-2000s [1] - 350:19
middle [3] - 270:1, 270:5, 270:20
midst [1] - 262:7
Midwest [2] - 375:25, 453:13
might [24] - 266:6, 293:3, 305:6, 330:8, 331:21, 355:8, 380:18, 382:12, 390:20, 402:13, 402:14, 402:18, 410:24, 450:21, 460:17, 464:16, 466:12, 476:17, 477:2, 478:2, 493:21, 499:4, 503:6, 509:5
migrate [1] - 399:3
migration [9] - 381:4, 381:6, 381:7, 381:25, 382:10, 383:3, 383:8, 392:15, 398:22
migratory [19] - 392:4, 392:7, 392:8, 392:14, 392:17, 392:20, 393:6, 394:17, 398:5, 398:7, 398:11, 398:12, 398:17, 399:3, 399:16, 400:20, 401:11, 403:17, 405:1
Milbank [1] - 467:18
mile [14] - 272:22, 292:16, 293:13, 293:14, 294:6, 325:2, 325:5, 325:8, 332:5, 431:4, 431:6, 520:8
mileage [1] - 467:21
miles [26] - 284:2, 284:6, 284:7, 285:5, 285:10, 285:12, 285:16, 285:18, 285:19, 285:21, 286:2, 286:13, 292:20, 297:24, 297:25, 298:7, 332:5, 378:8, 379:25, 384:13, 387:2, 388:25, 392:5, 392:12, 393:16, 405:3
Miles [3] - 251:17, 413:15, 440:9
Miles's [1] - 423:3
military [1] - 333:23
million [1] - 504:17
millions [2] - 357:25, 405:7
mind [8] - 401:16, 402:18, 418:1, 424:17, 436:22, 437:5, 446:1, 489:22
mine [3] - 316:12, 428:18, 516:13
minimal [1] - 380:23
minimis [1] - 435:3
minimization [2] - 377:10, 377:24
minimize [1] - 281:12
minimizing [1] - 378:5
minimum [2] - 266:4, 310:15
Minnesota [11] - 322:7, 351:9, 351:13, 351:22, 351:23, 367:3, 367:6, 367:8, 500:3, 500:8, 507:18
Minnesota/South [1] - 467:22
minor [7] - 403:12, 410:15, 411:22, 505:13, 505:15, 516:21, 516:25
minus [3] - 319:4, 319:6, 503:21
minute [12] - 274:11, 289:3, 289:25, 361:21, 362:16, 390:3, 392:1, 403:22, 418:2, 436:23, 439:14, 445:24
minutes [18] - 264:19, 265:20, 266:3, 274:3, 342:4, 349:22, 350:14, 351:1, 359:25, 360:14, 362:14, 362:16, 362:18, 363:8, 363:13, 363:16, 409:11, 467:23
misidentified [1] - 455:3
mismanaged [2] - 486:20, 486:25
miss [1] - 432:3
missed [2] - 465:5, 476:12
misstated [2] - 273:1, 454:4
mistaken [1] - 422:24
miswrote [1] - 499:13
mitigating [1] - 496:15
mitigation [2] - 377:10, 377:25
mix [1] - 476:14
mixes [2] - 385:19, 386:8
MLS [8] - 456:18, 464:11, 465:11, 465:13, 467:6, 473:18, 474:8, 475:20
MM-S-1 [1] - 259:13
MN-buyout-20186-143575-01 [1] - 261:6
mode [1] - 338:18
model [20] - 280:2, 283:2, 283:3, 283:4, 284:15, 284:17, 314:18, 318:17, 318:22, 318:25, 319:6, 337:24, 338:5, 338:14, 338:16, 340:3, 340:5, 340:6, 353:25, 503:17
modeled [1] - 319:10
modeling [14] - 263:10, 314:3, 314:13, 314:17, 318:18, 318:20, 337:20, 337:22, 371:10, 510:16, 510:22, 510:24, 513:16, 513:17
Modeling [2] - 257:8, 257:9
modelled [2] - 260:7, 260:8
mold [1] - 419:16
moment [1] - 345:19
momentary [1] - 361:22
monitor [2] - 394:10, 405:5
monitored [1] - 358:7
monitoring [4] - 336:10, 363:22, 377:19, 488:7
Monitoring [2] - 258:14, 336:6
Montana [2] - 268:16, 268:25
months [4] - 382:8, 487:22, 508:5
moon [10] - 270:9, 270:18, 270:25, 271:2, 288:22, 289:3, 289:8, 289:10, 289:13, 297:9
moonscape [1] - 289:15
morally [2] - 486:22, 487:9
Morey [2] - 261:13, 494:2
MOREY [1] - 256:10
morning [25] - 262:1, 264:10, 264:11, 266:9, 266:10, 283:16, 301:5, 308:13, 316:13, 316:14, 324:3, 324:4, 325:25, 326:1, 329:8, 329:9, 337:15, 344:8, 367:15, 367:16, 371:24, 371:25, 428:13, 436:4, 521:23
Morton [1] - 429:7
most [18] - 269:13, 269:25, 270:3, 286:23, 288:9, 318:14, 342:14, 366:25, 393:12, 403:12, 428:9, 429:16, 443:6, 453:11, 476:10, 506:5, 516:22, 516:23
mostly [1] - 497:17
Motion [8] - 409:16, 413:20, 414:6, 422:5, 422:14, 424:14, 424:18, 425:4
motion [20] - 409:18, 409:20, 410:9, 413:9, 415:9, 416:17, 416:19, 418:1, 418:7, 418:8, 420:16, 420:23, 421:1, 421:15, 421:22, 422:4, 422:22, 422:23, 423:3, 444:2
motivated [1] - 444:9
motivating [2] - 486:5, 489:24
motivations [1] - 457:6
motors [1] - 513:4
mountains [2] - 268:16, 268:25
move [7] - 353:3, 394:21, 424:9, 428:1, 496:25, 498:22, 502:12
moved [3] - 325:1, 493:4, 502:17
Moved [1] - 257:21
movements [1] - 327:16
moves [2] - 488:18, 497:3
moving [8] - 281:11, 394:8, 403:1, 451:25, 471:25, 493:23, 497:3, 519:8
MR [139] - 262:11, 262:16, 262:25, 273:13, 273:16, 275:1, 275:5, 275:19, 277:13, 277:17, 277:20, 283:13, 292:5, 292:10, 292:12, 292:23, 293:2, 293:5, 293:8, 293:11, 294:8, 294:15, 300:18, 300:23, 301:2, 302:18, 302:23, 313:11, 315:3, 321:2, 321:11, 321:15, 321:18, 323:18, 323:22, 325:20, 332:19, 332:25, 333:3, 337:7, 337:11, 337:13, 340:1, 340:7, 340:17, 354:21, 355:16, 367:14, 369:20, 374:18, 375:2, 375:6, 378:12, 378:16, 381:12, 381:15, 387:24, 406:2, 406:9, 406:16, 406:21, 406:25, 407:2, 407:7, 409:2, 409:9, 409:17, 410:13, 413:11, 413:12, 415:5, 416:12, 416:16, 418:18, 420:11, 420:20, 421:7, 421:12, 422:9, 422:14, 422:21, 423:2, 423:8, 423:13, 423:21, 423:24, 428:21, 428:25, 429:18, 430:20, 438:25, 439:5,

439:8, 440:9, 440:13, 440:14, 441:14, 441:17, 442:1, 442:22, 442:24, 443:9, 443:18, 444:1, 444:7, 444:20, 445:9, 445:15, 445:18, 446:1, 446:3, 446:12, 448:2, 448:4, 448:5, 448:7, 450:22, 451:14, 451:24, 459:1, 459:3, 459:6, 463:1, 468:10, 468:13, 468:18, 468:25, 490:10, 490:12, 493:11, 497:11, 497:14, 508:13, 511:23, 512:1, 513:22, 521:10, 521:12, 521:16
MS [228] - 262:1, 263:1, 274:24, 277:15, 283:14, 283:16, 283:19, 292:7, 292:8, 292:9, 293:1, 293:3, 293:6, 293:9, 294:11, 294:19, 294:21, 294:23, 295:13, 297:12, 297:13, 300:15, 300:19, 300:22, 302:20, 313:13, 313:16, 313:17, 313:18, 313:19, 313:22, 314:25, 315:1, 315:4, 315:7, 316:4, 316:6, 320:21, 320:25, 321:4, 321:8, 321:14, 323:20, 323:24, 324:2, 325:16, 325:19, 325:21, 325:23, 325:24, 332:17, 332:20, 337:9, 340:12, 340:15, 354:18, 355:17, 355:20, 361:23, 361:24, 367:9, 367:11, 369:22, 369:24, 371:19, 371:20, 374:16, 374:19, 374:23, 374:25, 378:14, 378:17, 378:19, 381:14, 381:17, 381:21, 381:22, 381:23, 381:24, 384:4, 387:20, 387:23, 387:25, 388:2, 388:4, 395:17, 395:19, 396:20, 406:1, 406:3, 406:8, 406:14, 407:1, 407:3, 407:11, 409:1, 409:3, 409:7, 409:11, 409:14, 410:11, 413:25, 414:4, 415:3, 415:15, 416:5, 416:18, 417:6, 417:17, 417:22, 418:1, 418:4, 420:9, 420:12, 420:23, 421:15, 421:21, 421:25, 422:2, 422:4, 422:12, 422:17, 423:1, 423:6, 423:10, 423:15, 423:19, 428:23, 429:1, 429:3, 429:22, 430:7, 430:11, 430:15, 430:19, 430:21, 430:24, 431:9, 431:11, 431:17, 431:20, 434:2, 438:23, 439:1, 439:4, 441:15, 441:18, 441:19, 441:21, 441:24, 441:25, 442:2, 442:3, 442:4, 442:7, 442:9, 442:11, 442:21, 443:7, 443:22, 444:6, 445:13, 445:16, 445:20, 446:2, 446:5, 446:8, 450:3, 450:10, 450:17, 450:24, 451:8, 451:15, 451:18, 451:20, 451:22, 451:25, 452:6, 452:9, 458:22, 458:24, 459:2, 463:2, 463:3, 463:6, 468:7, 468:9, 469:3, 489:2, 489:3, 489:5, 490:6, 490:7, 490:11, 490:13, 490:14, 490:16, 493:8, 493:10, 493:12, 493:14, 493:15, 493:19, 493:20, 493:22, 493:25, 494:4, 494:7, 497:6, 497:9, 497:12, 508:15, 508:17, 511:18, 511:21, 513:24, 518:17, 518:19, 518:21, 520:19, 520:25, 521:5, 521:11, 521:13, 521:14, 521:15, 521:17, 521:22
MT-1 [1] - 257:13
multiple [2] - 280:12, 429:11
Murphy [16] - 251:17, 253:4, 253:7, 253:10, 253:18, 253:21, 254:4, 254:6, 254:7, 254:15, 254:18, 262:8, 274:24, 290:15, 295:5, 406:23
MURPHY [41] - 262:11, 262:16, 262:25, 275:1, 275:5, 275:19, 277:13, 292:5, 292:23, 294:8, 300:18, 321:11, 321:15, 321:18, 323:18, 332:19, 332:25, 333:3, 337:7, 340:1, 354:21, 374:18, 406:9, 406:16, 406:21, 406:25, 407:2, 407:7, 409:2, 409:9, 443:9, 444:20, 445:9, 446:1, 446:3, 448:2, 448:5, 459:1, 490:10, 497:11, 521:10
Murphy's [1] - 445:14
must [4] - 273:1, 322:23, 435:21, 514:18
MW [3] - 259:3, 259:8, 259:9
MWs [1] - 259:4
mystery [1] - 313:17

N

NAD83 [1] - 259:11
Nails [1] - 328:14
name [17] - 293:10, 301:3, 301:5, 301:10, 321:19, 321:21, 333:4, 341:16, 375:7, 423:25, 439:9, 443:1, 452:11, 452:12, 487:5, 494:8, 494:10
names [1] - 293:8
narrow [1] - 418:16
narrower [1] - 414:19
narrowing [1] - 341:9
NARUC [11] - 345:21, 346:6, 351:2, 351:6, 351:7, 351:10, 351:14, 351:18, 507:15, 507:20, 507:22
national [4] - 336:3, 349:2, 399:3, 507:18
nationally [1] - 349:9
Nationwide [1] - 378:7
native [2] - 385:19, 424:11
natural [6] - 306:22, 375:17, 375:19, 376:1, 376:21, 401:7
Natural [1] - 387:3
nature [9] - 269:19, 283:6, 305:6, 308:25, 309:18, 395:4, 403:23, 412:6, 475:23
near [22] - 306:10, 307:19, 323:3, 328:6, 336:16, 384:7, 386:18, 455:15, 456:7, 456:22, 460:10, 460:20, 461:21, 464:13, 465:10, 471:5, 473:7, 473:24, 478:8, 506:4, 506:5, 506:6
nearby [1] - 336:11
Nearby [1] - 258:15
nearest [4] - 293:18, 324:24, 325:3, 384:12
nearly [2] - 415:20, 475:2
necessarily [3] - 305:16, 320:6, 401:20
necessary [6] - 286:3, 389:4, 395:8, 408:22, 449:1, 520:12
need [27] - 264:1, 275:8, 276:8, 294:7, 294:11, 295:1, 330:20, 365:20, 370:1, 374:11, 388:14, 388:16, 391:18, 391:20, 401:17, 404:17, 418:2, 422:13, 429:20, 445:22, 445:24, 446:2, 448:13, 489:10, 489:12, 494:24, 520:20
needed [6] - 330:20, 331:11, 377:7, 424:10, 451:19, 481:22
needs [3] - 292:24, 418:6, 430:5
negative [5] - 456:10, 467:11, 471:12, 473:14, 474:18
negatives [1] - 471:21
negligible [1] - 299:9
negotiation [3] - 456:11, 457:13, 481:15
neighbor [12] - 293:12, 293:13, 425:13, 435:20, 449:6, 449:11, 449:12, 449:16, 449:17, 449:20, 449:23, 450:2
neighbor's [3] - 427:3, 479:9, 479:13
neighborhood [1] - 473:7
neighboring [1] - 491:5
neighbors [5] - 292:15, 292:25, 293:7, 293:22, 361:6
Nelson [12] - 371:21, 418:2, 420:14, 420:24, 422:2, 422:21, 431:17, 434:3, 442:5, 450:13, 450:20, 519:15
NELSON [77] - 251:11, 263:4, 263:17, 263:22, 264:8, 297:17, 297:23, 298:6, 298:21, 299:5, 299:11, 299:17, 299:20, 300:3, 300:8, 300:14, 317:22, 329:8, 329:10, 329:17, 330:12, 340:11, 371:22, 407:14, 408:16, 408:25, 415:17, 416:7, 416:13, 416:23, 417:11,

417:20, 418:3, 418:5, 420:15, 420:22, 421:17, 422:3, 422:25, 431:18, 434:4, 434:13, 434:25, 435:6, 435:9, 435:15, 435:19, 435:21, 435:24, 436:3, 436:9, 436:11, 436:15, 436:18, 436:21, 436:25, 437:3, 437:13, 437:16, 440:16, 442:6, 450:7, 451:1, 451:7, 478:16, 478:19, 478:24, 479:3, 479:11, 479:17, 482:3, 514:5, 514:10, 514:17, 514:24, 515:15, 515:19
Nelson's [1] - 451:13
nest [4] - 377:14, 379:23, 382:22, 394:5
Nest [1] - 257:7
nests [1] - 378:8
net [1] - 283:11
never [23] - 270:8, 270:11, 291:6, 291:7, 300:2, 300:12, 300:13, 305:8, 351:12, 351:14, 386:6, 410:25, 414:15, 433:4, 433:15, 438:3, 438:4, 463:15, 466:4, 490:23, 491:13, 491:14
new [17] - 277:7, 277:10, 290:18, 290:21, 402:2, 402:13, 402:25, 429:6, 429:10, 466:9, 475:5, 475:11, 490:21, 492:2, 493:3, 509:23
newer [1] - 370:25
newspaper [1] - 466:2
next [12] - 276:11, 300:22, 321:8, 321:10, 321:12, 332:22, 362:11, 385:3, 439:4, 493:19, 493:20, 504:19
NextEra [9] - 303:12, 319:17, 319:21, 320:1, 320:7, 334:7, 408:17, 438:8, 495:7
nice [3] - 378:25, 487:11, 487:25
night [6] - 262:6, 267:21, 270:17, 297:10, 313:2, 433:12
night's [1] - 369:6
nine [1] - 460:23
Nine [1] - 328:14
noise [78] - 267:10, 295:10, 299:2, 299:10, 306:23, 306:24, 306:25, 307:1, 307:21, 309:25, 310:3, 310:25, 311:10, 314:13, 317:13, 323:3, 323:11, 324:5, 327:19, 328:6, 328:17, 328:21, 330:22, 330:24, 331:3, 331:8, 332:9, 332:11, 332:13, 332:14, 336:17, 336:24, 356:13, 357:8, 357:14, 357:20, 365:1, 367:19, 367:20, 368:19, 371:5, 371:10, 373:10, 374:9, 385:10, 385:11, 419:6, 434:19, 442:17, 447:7, 462:16, 462:19, 467:5, 467:13, 472:16, 473:2, 473:20, 493:2, 494:21, 495:3, 495:6, 495:8, 498:8, 500:6, 500:14, 500:19, 502:5, 503:5, 503:9, 505:16, 510:3, 510:5, 510:6, 511:10, 512:4, 513:3, 515:8
Noise [9] - 257:18, 258:3, 258:4, 258:6, 258:10, 258:11, 258:12, 259:14, 259:18
none [5] - 263:18, 293:6, 315:3, 325:20, 342:24
nonetheless [1] - 341:20
noninfluenced [1] - 455:24
nonparticipant [3] - 412:24, 413:3, 447:4
nonparticipants [5] - 413:1, 444:17, 496:19, 496:23, 510:21
nonparticipating [8] - 335:2, 368:24, 369:18, 370:16, 444:10, 468:20, 501:18, 507:7
nonparticipators [1] - 512:6
normal [3] - 402:3, 471:17, 512:18
normally [1] - 320:21
north [8] - 293:13, 294:1, 379:2, 428:9, 431:4, 475:13, 475:25, 494:11
North [7] - 341:15, 350:24, 370:3, 370:6, 370:12, 375:11, 400:2
northeast [2] - 384:13, 440:19
northern [3] - 386:23, 386:25, 399:4
Northern [2] - 408:8, 428:2
Northwestern [1] - 322:10
Notary [2] - 522:7, 522:18
note [8] - 265:21, 392:4, 413:22, 432:1, 460:18, 489:17, 499:1, 516:15
noted [4] - 440:11, 440:12, 462:17, 462:20
notes [2] - 265:10, 386:24
nother [1] - 414:23
nothing [19] - 279:10, 300:18, 340:24, 341:2, 357:17, 358:4, 358:8, 358:17, 364:24, 365:18, 428:11, 438:25, 470:16, 475:9, 490:10, 490:12, 493:11, 499:11, 521:12
nothing's [1] - 433:14
Notice [2] - 257:21, 257:22
notice [3] - 278:20, 342:5, 490:5
noticeable [1] - 308:22
noticed [2] - 442:15, 490:1
Novak [1] - 294:4
November [4] - 383:7, 390:7, 467:2, 473:17
novo [1] - 328:4
noxious [1] - 385:18
nuisance [15] - 320:16, 350:7, 355:14, 359:15, 360:18, 360:19, 361:4, 363:12, 368:16, 419:1, 419:9, 419:10, 419:18, 420:18
number [35] - 265:19, 269:24, 276:16, 298:16, 319:10, 330:8, 336:22, 343:9, 348:10, 350:20, 351:1, 357:12, 359:21, 359:25, 360:6, 360:23, 369:9, 372:15, 373:24, 389:15, 399:23, 440:7, 444:14, 466:23, 474:24, 481:7, 483:9, 483:11, 483:18, 488:9, 501:2, 501:10, 503:21, 504:23, 507:11
numbered [2] - 362:5, 385:15
numbers [6] - 263:23, 309:14, 310:19, 328:19, 370:2, 376:8
numerous [9] - 345:4, 357:10, 359:6, 370:11, 377:3, 380:19, 382:17, 470:24, 471:2

O

O&M [1] - 408:23
o'clock [2] - 320:22, 374:23
O-L-L-S-O-N [1] - 333:7
oath [12] - 262:10, 300:25, 321:16, 333:1, 369:16, 375:4, 407:12, 423:22, 439:6, 446:9, 452:7, 494:5
object [5] - 381:12, 429:18, 443:9, 450:9, 450:12
objected [1] - 410:16
objection [15] - 292:5, 292:23, 294:8, 340:1, 340:15, 354:21, 381:14, 381:19, 445:12, 445:23, 446:10, 448:2, 450:4, 450:18
objective [4] - 309:23, 327:12, 327:13, 327:17
Objective [2] - 258:4, 258:9
obligated [2] - 486:22, 487:9
obligation [1] - 275:19
observance [1] - 341:21
observation [1] - 386:25
observe [2] - 411:10, 501:18
observed [1] - 462:23
observer [1] - 271:25
obtain [1] - 475:21
obtained [1] - 453:1
obvious [1] - 464:7
obviously [8] - 331:11, 437:6, 467:21, 472:24, 477:13, 480:14, 481:10, 481:23
occasion [3] - 447:1, 447:8, 448:16
occasions [3] - 359:6, 447:5, 447:16
occupant [1] - 377:16
occupational [1] - 322:11
occupied [4] - 259:10, 284:17, 291:9, 378:8
occur [9] - 271:4, 349:16, 390:11, 390:16, 391:7, 391:9, 407:20, 465:6, 506:8
occurred [10] - 270:8, 292:3, 326:18, 348:10, 460:14, 460:23, 463:20, 464:2, 488:6, 491:19
occurrence [2] - 363:15, 499:20
occurrences [1] - 392:8
occurring [2] -

279:21, 382:11
occurs [2] - 278:22, 339:19
ocean [2] - 306:8, 307:18
October [4] - 376:7, 500:2, 507:13, 508:5
OF [6] - 251:2, 251:4, 251:5, 522:1, 522:3
offensive [1] - 411:16
offer [18] - 293:16, 323:19, 337:8, 409:24, 424:25, 428:22, 441:14, 449:12, 449:13, 450:1, 456:18, 456:21, 476:16, 481:18, 486:15, 486:21, 487:7, 494:23
offered [3] - 410:18, 410:19, 433:2
offering [3] - 411:19, 418:19, 422:16
offers [1] - 476:9
offhand [1] - 347:11
Office [1] - 377:6
office [1] - 375:11
often [6] - 307:17, 312:24, 313:5, 466:11, 466:18, 476:7
oftentimes [1] - 475:20
old [3] - 277:10, 410:25, 459:9
older [1] - 491:9
Ollson [18] - 257:23, 260:6, 306:4, 321:12, 332:25, 333:6, 333:8, 337:8, 337:14, 340:18, 346:2, 354:24, 355:21, 362:1, 367:15, 374:19
OLLSON [1] - 254:17
OLSON [1] - 256:7
Olson [1] - 261:14
omnidirectional [1] - 277:25
on-and-off [2] - 515:13, 520:4
once [5] - 391:5, 400:16, 419:11, 472:4, 501:5
one [152] - 265:15, 268:4, 268:12, 269:16, 270:14, 274:1, 274:9, 275:6, 277:21, 280:1, 280:12, 280:14, 288:7, 289:19, 291:21, 292:13, 294:1, 294:5, 294:6, 294:15, 295:8, 298:10, 298:13, 298:18, 304:25, 308:9, 309:15, 316:25, 319:15, 319:22, 325:10, 329:20, 338:20, 338:21, 339:15, 340:12, 340:22, 346:4, 346:20, 347:25, 348:18, 349:12, 352:12, 356:9, 362:16, 363:21, 364:11, 366:11, 367:2, 372:22, 378:8, 379:24, 382:21, 383:17, 384:11, 387:13, 389:10, 391:13, 392:24, 393:4, 393:7, 393:16, 393:24, 394:2, 398:14, 398:19, 399:4, 399:21, 401:15, 402:17, 402:23, 403:4, 405:8, 412:2, 412:17, 414:9, 417:2, 423:15, 430:25, 431:4, 431:16, 433:11, 435:7, 435:8, 436:1, 440:5, 440:19, 442:13, 442:15, 442:24, 444:22, 445:7, 449:13, 449:25, 450:3, 450:8, 450:14, 454:3, 456:9, 457:22, 459:21, 460:12, 464:9, 464:25, 465:4, 465:8, 466:8, 468:22, 469:10, 472:4, 473:15, 473:16, 474:7, 474:18, 475:8, 475:13, 475:25, 476:20, 476:25, 477:18, 481:5, 481:24, 483:14, 485:24, 486:8, 487:19, 487:20, 488:10, 492:24, 493:7, 493:21, 497:25, 498:9, 498:16, 499:25, 503:6, 507:25, 514:10, 514:20, 514:21, 516:13, 517:7, 520:12
one's [1] - 306:18
one-by-one [3] - 338:20, 338:21, 339:15
one-minute [1] - 362:16
one-off [1] - 372:22
onerous [1] - 419:8
ones [4] - 379:5, 461:11, 478:7, 514:22
Onida [2] - 251:25, 522:13
oops [1] - 446:13
open [7] - 270:16, 278:6, 343:1, 480:19, 480:20, 498:11
openhandedly [1] - 408:24
opening [3] - 264:20, 330:19, 380:9
operate [3] - 315:17, 407:25, 408:11
operating [6] - 330:6, 388:25, 408:17, 419:2, 520:7
operation [9] - 354:2, 388:24, 419:17, 419:22, 456:5, 456:8, 461:1, 491:9, 491:11
operational [3] - 310:7, 310:14, 310:20
operations [8] - 327:5, 388:21, 394:11, 395:7, 404:18, 405:3, 408:6, 408:22
opinion [28] - 279:2, 279:17, 288:11, 346:17, 347:12, 347:14, 347:18, 352:19, 357:24, 360:21, 362:21, 386:13, 395:11, 409:25, 410:22, 411:6, 416:21, 448:23, 458:3, 460:6, 479:16, 480:14, 480:22, 483:16, 489:6, 489:13, 492:7, 514:25
opinions [2] - 411:20, 472:15
opportunity [7] - 417:13, 433:2, 443:11, 476:15, 477:2, 477:3, 496:19
opposed [3] - 280:12, 344:19, 501:1
Optical [1] - 258:22
optimal [1] - 512:8
optimization [1] - 510:20
option [2] - 498:11, 502:24
options [3] - 498:17, 502:10, 502:11
OR [1] - 429:9
oral [1] - 477:20
Ord [2] - 260:3, 260:4
order [12] - 262:2, 339:25, 375:1, 401:24, 402:10, 407:19, 408:19, 409:15, 443:22, 444:11, 444:13, 501:17
ordered [1] - 447:18
ordinance [11] - 276:13, 276:24, 277:8, 290:3, 290:18, 290:21, 290:24, 333:14, 341:14, 347:6, 357:16
ordinances [1] - 359:3
organizations [1] - 319:20
origin [1] - 347:20
Original [1] - 257:20
original [5] - 277:3, 352:15, 364:2, 416:19, 490:20
originally [3] - 442:15, 444:17, 517:13
originating [1] - 348:14
origins [2] - 341:5, 346:23
OSHA [3] - 512:23, 512:24, 512:25
otherwise [2] - 414:10, 420:13
otter [2] - 386:24, 387:1
otters [2] - 386:17, 386:19
ought [1] - 300:10
outcome [1] - 320:2
outdoor [1] - 279:4
outlined [2] - 310:8, 423:2
output [1] - 498:12
outreach [1] - 449:1
outset [1] - 413:17
outside [16] - 284:15, 297:20, 340:4, 341:21, 342:6, 342:7, 342:25, 343:4, 343:15, 361:8, 367:24, 385:1, 392:5, 400:21, 480:21, 515:5
overall [1] - 372:23
overarch [1] - 370:13
overarching [3] - 364:5, 370:17, 373:11
overbroad [1] - 412:25
overestimating [1] - 518:9
overrule [1] - 443:17
overview [9] - 301:18, 302:9, 322:3, 322:20, 333:18, 334:16, 357:18, 375:21, 376:17
overwhelming [1] - 306:13
own [5] - 354:7, 404:24, 423:4, 461:18, 496:13
owned [2] - 462:10, 469:19
owner [3] - 333:7, 419:8, 465:15
owner's [2] - 434:23, 434:24
owners [7] - 411:9, 418:25, 419:21, 419:24, 420:5, 493:3, 499:19
ownership [2] - 411:23, 466:11
Oxford [1] - 374:14

P

P-O-H-L [1] - 362:24
p.m [1] - 521:24
PAGE [6] - 253:2, 254:2, 255:2, 255:9, 255:19, 256:2
page [56] - 264:14, 264:15, 264:16, 266:11, 273:7, 273:11, 273:21, 296:10, 296:12, 303:6, 306:5, 318:8, 340:21, 340:23, 346:22, 347:8, 349:11, 349:14,

351:25, 352:4, 352:6, 352:16, 352:21, 362:4, 362:5, 364:10, 364:23, 370:2, 376:8, 385:14, 385:15, 386:24, 388:7, 389:13, 389:15, 389:21, 390:13, 390:18, 412:19, 415:23, 416:8, 416:13, 416:25, 418:10, 418:11, 425:5, 425:11, 439:16, 442:14, 470:6, 470:15, 482:5, 497:19, 499:1, 499:5
Pages [1] - 251:9
pages [2] - 340:20, 508:11
paginated [1] - 340:20
paid [5] - 320:3, 432:6, 432:9, 432:10, 474:10
Paige [1] - 261:14
PAIGE [1] - 256:7
paired [1] - 456:1
paper [9] - 263:24, 336:4, 346:2, 356:16, 359:23, 363:21, 363:25, 371:9
papers [3] - 334:20, 335:8, 361:15
parade [1] - 436:9
paragraph [5] - 273:24, 352:7, 352:20, 352:22, 362:11
paragraphs [2] - 349:20, 362:6
parallel [1] - 294:2
parameter [1] - 332:15
Parameters [1] - 258:6
parameters [3] - 318:18, 318:20, 318:22
paraphrase [2] - 499:5, 499:9
Parcel [1] - 259:9
parcels [1] - 411:8
Park [1] - 501:8
park [1] - 501:24
Parker [1] - 419:15
parking [1] - 504:16
Parks [5] - 377:5, 380:15, 387:5, 393:11, 394:13
parlance [2] - 341:9, 344:18
parse [1] - 515:10
Part [1] - 261:9
part [36] - 267:16, 280:25, 319:23, 326:20, 334:1, 337:14, 339:22, 342:14, 344:23, 349:25, 352:15, 352:18, 363:3, 366:25, 367:17, 371:4, 371:8, 381:13, 391:15, 394:13, 394:16, 415:10, 416:3, 426:2, 426:3, 431:23, 459:13, 459:21, 460:11, 464:16, 464:18, 500:13, 501:14, 509:4, 510:5
partial [1] - 414:6
participant [2] - 434:18, 451:2
participant's [1] - 451:3
participants [7] - 326:12, 458:4, 462:10, 471:15, 472:10, 477:10, 477:14
Participants [1] - 258:13
participate [1] - 448:20
participated [3] - 333:16, 375:16, 508:24
participating [1] - 335:3
participation [13] - 444:8, 444:16, 446:20, 446:24, 447:3, 447:17, 447:23, 448:11, 448:15, 448:19, 449:15, 449:18, 449:20
particular [14] - 304:14, 307:11, 308:1, 317:6, 325:10, 328:5, 329:24, 357:17, 410:21, 457:23, 461:22, 470:16, 481:12, 507:4
particularly [1] - 461:2
particulate [1] - 356:12
parts [2] - 402:3, 425:5
party [2] - 417:18, 493:6
Party [1] - 260:17
pass [3] - 266:6, 302:19, 508:14
passage [2] - 345:13, 352:2
passed [1] - 422:22
passes [2] - 420:16, 422:4
passing [8] - 343:16, 343:19, 344:11, 344:15, 345:1, 345:5, 345:9, 366:24
past [8] - 291:4, 354:10, 370:15, 400:23, 404:1, 430:2, 482:9, 517:7
path [5] - 398:5, 398:11, 398:17, 399:16, 401:11
paths [2] - 398:12, 400:20
paved [1] - 384:25
pay [1] - 432:25
paying [1] - 427:20
payments [1] - 451:5
pays [1] - 476:10
peaked [1] - 270:14
peer [7] - 303:13, 319:23, 320:4, 334:20, 336:2, 359:23, 363:21
peer-reviewed [5] - 319:23, 334:20, 336:2, 359:23, 363:21
pegged [1] - 440:5
pelicans [1] - 381:8
pending [1] - 386:9
pension [1] - 362:17
people [45] - 269:20, 278:16, 294:7, 294:14, 297:8, 300:1, 300:4, 323:2, 323:12, 323:14, 326:14, 328:3, 329:16, 331:7, 335:21, 336:13, 347:24, 350:20, 355:13, 358:1, 368:14, 369:6, 371:12, 372:2, 372:21, 373:25, 420:4, 443:23, 448:20, 448:21, 468:23, 471:25, 472:11, 472:15, 472:18, 473:4, 473:14, 476:8, 476:12, 476:14, 481:24, 482:24, 483:11, 493:1, 493:22
per [12] - 274:3, 274:7, 347:12, 349:20, 349:22, 353:4, 353:19, 354:25, 359:10, 360:14, 367:4, 382:13
perceived [2] - 341:10, 411:11
percent [22] - 272:8, 308:15, 360:6, 391:24, 392:7, 399:18, 467:10, 470:23, 473:15, 473:21, 475:2, 475:8, 476:24, 501:4, 505:7, 505:8, 513:7, 516:11, 516:14, 517:5, 517:14
percentage [2] - 289:3, 308:14
percentagewise [1] - 308:24
perceptibility [1] - 308:21
perceptible [3] - 308:19, 309:3, 309:7
perception [3] - 287:18, 308:18, 461:5
perfectly [3] - 270:17, 366:15, 411:5
perform [4] - 272:17, 314:2, 314:12, 314:18
performed [5] - 281:14, 381:11, 460:6, 460:7, 466:17
perhaps [12] - 267:23, 308:7, 309:4, 311:8, 324:10, 324:23, 347:19, 366:9, 416:17, 461:23, 502:12, 520:12
period [12] - 312:22, 312:23, 313:6, 328:22, 331:8, 362:13, 372:22, 397:22, 398:3, 463:24, 471:24, 493:4
periods [3] - 316:1, 383:9, 401:5
peripheral [1] - 505:6
PERMIT [1] - 251:5
permit [8] - 262:4, 291:21, 292:2, 292:4, 412:22, 419:3, 421:13, 492:20
Permit [5] - 261:16, 290:7, 292:1, 378:7, 419:3
permits [4] - 291:17, 291:19, 292:2, 482:9
Permits [1] - 257:9
permitted [6] - 412:7, 415:25, 443:3, 456:7, 461:4, 472:24
permitting [3] - 375:24, 376:1, 488:19
perpetuated [1] - 348:21
person [8] - 275:18, 320:2, 406:15, 426:21, 445:3, 451:5, 475:21, 476:9
person's [1] - 323:9
personal [3] - 268:10, 288:8, 412:9
personally [4] - 311:14, 318:1, 375:16, 387:7
personnel [2] - 388:21, 388:23
persons [1] - 411:5
perspective [4] - 317:7, 317:10, 317:12, 335:24
pertain [1] - 412:10
pertaining [1] - 357:8
pertinent [1] - 475:4
perturbed [1] - 432:21
pessimistic [1] - 467:4
Ph.D [3] - 333:21, 356:5, 361:9
PhD [1] - 335:23
phenomena [1] - 343:16
phenomenon [6] - 328:3, 341:23, 342:25, 345:9, 476:11, 506:12
Philadelphia [1] - 322:9
Philippine [1] - 413:24
philosophical [1] - 434:5
philosophy [1] - 356:3
phone [2] - 468:24, 516:7
phonetic [1] - 330:2
photo [1] - 475:21

photographer [1] - 272:9
photography [1] - 272:5
photoleptic [1] - 330:2
Photosensitive [2] - 258:17, 258:18
phrase [3] - 417:1, 417:12, 432:16
physical [3] - 283:5, 283:10, 434:13
physician [2] - 321:21, 327:21
physicians [2] - 361:14, 361:16
physics [2] - 283:3, 517:2
physics-based [1] - 283:3
pick [3] - 275:1, 295:13, 444:13
picking [1] - 294:24
picture [4] - 263:14, 289:5, 289:6, 299:13
piece [1] - 311:8
pierce [1] - 393:4
Pierre [2] - 252:4, 426:24
piggyback [1] - 436:4
pinpoint [2] - 266:22, 267:2
pipeline [1] - 373:19
Pizza [1] - 425:20
place [7] - 335:23, 378:10, 380:4, 399:11, 426:8, 505:14, 505:15
placed [1] - 404:20
placement [1] - 379:1
placing [2] - 330:14, 426:13
plainly [1] - 268:13
plains [1] - 268:21
Plan [2] - 257:11, 376:25
plan [6] - 266:2, 394:16, 395:1, 403:21, 449:13, 498:3
planned [1] - 506:25
planning [3] - 321:9, 333:13, 357:11
plans [3] - 393:22, 432:25, 497:24
plant [1] - 373:24
plants [4] - 373:20, 494:20, 513:1
plastic [1] - 315:21
play [6] - 295:22, 298:16, 330:4, 414:16, 414:17, 486:6
plays [1] - 335:7
pleading [1] - 420:6
plotted [1] - 312:8
plumbed [1] - 305:8
plus [6] - 288:1, 298:19, 319:3, 319:6, 347:9, 503:20
PMR [1] - 424:9
Pohl [3] - 362:24, 363:3, 363:5
point [29] - 270:14, 271:9, 271:23, 272:2, 272:19, 277:3, 329:12, 330:8, 340:10, 353:10, 364:17, 377:13, 382:4, 382:17, 383:1, 389:11, 389:12, 425:11, 425:21, 430:25, 440:15, 447:1, 450:17, 465:3, 474:25, 477:18, 505:7, 506:7, 507:5
policy [1] - 408:18
Polysomnographic [1] - 258:6
pondering [1] - 434:4
pool [3] - 477:9, 484:11, 484:16
poor [2] - 352:19, 362:12
population [9] - 305:23, 361:19, 373:23, 379:21, 381:8, 458:3, 467:17, 477:3
porch [1] - 325:13
portion [12] - 265:22, 292:1, 305:23, 331:25, 335:19, 372:6, 373:23, 374:2, 416:3, 416:18, 418:15, 450:18
portions [3] - 410:8, 414:25, 471:9
pose [4] - 323:16, 337:5, 365:23, 366:16
posed [4] - 446:16, 449:24, 454:12, 495:17
posing [1] - 335:4
position [5] - 344:25, 389:5, 407:22, 479:18, 520:10
positions [2] - 398:11, 403:10
positive [1] - 470:17
positively [1] - 498:21
possession [2] - 411:23, 426:4
possibility [3] - 498:12, 498:16, 502:15
possible [12] - 279:24, 280:14, 285:15, 287:12, 297:24, 299:23, 305:22, 346:1, 353:6, 362:20, 500:22, 510:11
possibly [5] - 285:21, 324:8, 367:3, 379:20, 384:23
post [2] - 326:5, 424:10
Postal [1] - 424:7
Postconstruction [1] - 257:17
postconstruction [3] - 301:17, 302:13, 309:20
posted [1] - 343:24
Potential [2] - 258:19, 259:19
potential [19] - 259:4, 322:1, 323:9, 327:4, 331:4, 335:4, 338:7, 339:4, 357:24, 359:15, 376:21, 391:11, 392:2, 398:4, 470:25, 471:2, 476:13, 477:7
potentially [11] - 308:6, 360:7, 365:23, 369:3, 392:20, 394:10, 398:14, 401:10, 401:15, 402:6, 421:12
pounds [1] - 357:25
powder [2] - 268:15, 268:25
power [7] - 272:11, 319:8, 494:20, 509:19, 509:21, 513:1, 513:18
Power [2] - 408:8, 428:2
PowerPoint [5] - 346:5, 346:7, 346:9, 346:11, 346:16
Poweshiek [2] - 257:6, 377:15
practicable [1] - 378:6
practical [3] - 285:25, 497:5, 502:15
practice [6] - 267:17, 286:1, 286:4, 300:12, 321:22
practices [6] - 351:2, 351:8, 351:14, 378:9, 500:9, 507:15
Practices [3] - 345:21, 345:25, 346:6
prairie [1] - 487:20
prairies [1] - 268:17
preceding [1] - 353:3
precipitating [1] - 330:2
precise [1] - 266:20
Precision [1] - 251:25
precluded [1] - 414:12
preconstruction [1] - 314:3
predict [2] - 338:10, 517:23
predicted [4] - 308:10, 339:12, 503:7, 507:7
predicting [2] - 339:6, 339:8
prediction [2] - 269:13, 503:18
predicts [1] - 338:18
predominate [1] - 312:14
preface [1] - 291:17
prefer [6] - 306:2, 328:16, 332:14, 362:7, 407:7, 472:4
preference [2] - 304:5, 481:9
preferences [3] - 386:3, 386:9, 386:11
preferred [1] - 509:13
prefile [1] - 322:13
Prefiled [13] - 261:12, 261:12, 261:13, 261:14, 261:14, 261:15, 302:1, 302:3, 334:8, 334:10, 376:6, 376:8, 376:11
prefiled [11] - 302:7, 302:9, 322:18, 334:16, 376:15, 409:21, 410:10, 452:2, 453:24, 454:12, 495:18
premium [3] - 482:23, 483:2, 483:3
preparation [5] - 326:21, 389:25, 400:9, 455:11, 495:1
prepare [2] - 390:1, 427:2
prepared [8] - 290:19, 305:25, 312:11, 410:14, 423:19, 424:23, 432:25, 439:16
preparing [2] - 333:17, 342:3
presence [1] - 306:13
present [7] - 281:2, 281:6, 304:19, 345:15, 443:20, 452:3, 497:16
presentation [3] - 326:2, 346:9, 374:15
presented [1] - 487:1
presenting [2] - 398:20, 476:9
Preservation [1] - 377:6
president [2] - 494:16, 494:17
pressure [2] - 309:1
presumption [2] - 470:7, 470:11
pretend [1] - 271:15
pretty [11] - 264:22, 266:15, 318:12, 343:24, 379:15, 405:8, 410:5, 418:16, 439:23, 464:7, 473:22
Prevailing [3] - 487:20, 501:8, 502:16
prevailing [1] - 501:24
prevalent [1] - 350:18
prevent [1] - 420:17
previous [4] - 443:17, 453:16, 478:1, 510:4
previously [3] - 447:4, 453:15, 460:22
price [17] - 455:23, 456:3, 456:25, 457:8, 457:15, 467:6, 467:15, 470:8, 471:18, 473:9, 474:1, 474:14, 476:7, 477:4, 483:3, 489:25, 491:3
prices [1] - 455:15
primaries [1] - 276:1
Primary [1] - 260:5
primary [3] - 302:12, 312:24, 452:19
print [1] - 272:6
pro [3] - 251:20, 251:22, 294:10
probabilities [2] -

354:2
probability [1] - 354:13
probing [1] - 340:7
problem [4] - 279:20, 330:10, 331:6, 431:8
problems [2] - 327:23, 414:23
procedural [1] - 443:22
Procedure [3] - 414:8, 414:11, 414:16
proceed [2] - 313:20, 422:11
proceeding [1] - 340:3
proceedings [5] - 252:1, 443:14, 481:1, 522:9, 522:12
Proceedings [1] - 251:7
process [20] - 296:5, 310:13, 388:22, 393:22, 419:12, 431:22, 433:22, 445:5, 448:25, 449:2, 456:11, 457:13, 462:13, 463:16, 470:4, 477:8, 479:25, 480:19, 485:12, 496:13
produce [1] - 340:6
produced [2] - 277:7, 335:9
Produced [1] - 258:11
produces [1] - 353:25
product [1] - 502:2
production [2] - 379:16, 449:5
profession [5] - 361:15, 453:1, 453:11, 460:4, 480:5
Professional [2] - 522:6, 522:19
professional [2] - 452:14, 514:24
professionally [1] - 499:22
professionals [1] - 279:18
professorships [1] - 333:25
proffer [1] - 340:2
profile [1] - 288:13
program [1] - 310:16
Project [1] - 334:6
project [142] - 265:23, 270:4, 272:20, 274:13, 280:9, 284:4, 284:7, 284:15, 284:21, 285:6, 286:1, 286:2, 293:19, 296:20, 297:20, 301:14, 310:6, 311:12, 314:18, 314:21, 322:2, 322:25, 333:16, 334:5, 334:22, 334:23, 335:4, 335:9, 335:15, 335:16, 337:5, 338:8, 338:15, 344:7, 356:16, 357:15, 357:17, 357:20, 359:3, 365:2, 365:8, 365:11, 365:13, 365:16, 365:19, 365:23, 366:2, 366:3, 366:4, 366:8, 368:20, 368:21, 369:7, 372:20, 373:8, 373:9, 373:18, 373:21, 373:25, 374:1, 375:13, 375:16, 376:22, 377:11, 377:13, 379:3, 379:19, 380:1, 380:3, 380:4, 380:12, 380:20, 382:1, 382:3, 382:5, 382:19, 383:12, 386:18, 387:2, 387:7, 387:10, 390:12, 390:16, 391:7, 391:9, 391:12, 391:24, 392:5, 392:11, 392:12, 393:17, 397:10, 397:11, 397:13, 398:2, 403:18, 405:10, 407:23, 408:15, 408:18, 413:3, 426:10, 428:2, 440:10, 447:21, 448:21, 448:22, 449:13, 450:2, 451:4, 455:16, 456:7, 456:17, 458:11, 461:4, 472:24, 484:24, 485:2, 488:12, 488:13, 496:16, 497:20, 497:21, 498:1, 498:10, 502:20, 509:1, 509:7, 509:14, 510:3, 511:11, 512:13, 513:19, 515:7, 515:9, 515:11, 520:2, 520:7, 520:14
project's [1] - 379:1
projected [1] - 265:20
projects [27] - 285:23, 296:21, 301:23, 320:15, 320:19, 334:7, 336:23, 368:1, 370:12, 371:15, 373:19, 375:25, 453:12, 453:13, 455:14, 472:8, 481:25, 488:6, 500:18, 501:3, 502:14, 503:14, 509:15, 512:22, 517:7, 517:22, 520:11
prolonged [1] - 328:22
promise [1] - 450:8
prompt [1] - 450:21
prompted [1] - 509:4
prompts [1] - 451:9
propagation [1] - 503:25
propensity [1] - 329:23
proper [2] - 310:5, 333:15
properly [4] - 267:24, 334:23, 358:6, 487:1
properties [22] - 455:21, 455:24, 461:21, 463:10, 463:11, 463:12, 464:24, 465:1, 466:18, 466:19, 470:9, 472:7, 472:22, 474:3, 474:22, 476:25, 477:15, 478:5, 478:11, 491:7, 492:22, 492:25
property [112] - 355:9, 355:10, 358:15, 364:6, 377:23, 411:8, 411:11, 411:23, 412:11, 412:24, 413:2, 418:22, 418:25, 419:8, 419:21, 419:24, 420:5, 426:13, 427:7, 428:8, 428:15, 428:17, 428:19, 429:4, 429:5, 434:11, 434:13, 434:23, 434:24, 435:2, 435:4, 435:12, 436:19, 451:3, 452:15, 452:17, 455:23, 456:18, 456:23, 457:9, 458:12, 459:9, 459:20, 460:6, 460:16, 461:5, 461:14, 461:16, 461:25, 462:5, 462:7, 462:11, 462:15, 462:16, 462:24, 463:12, 464:17, 464:25, 465:15, 465:22, 465:25, 466:1, 466:2, 466:4, 467:5, 467:9, 467:10, 467:14, 467:16, 467:25, 470:13, 470:20, 471:4, 471:7, 471:11, 471:22, 472:19, 474:19, 475:15, 475:19, 476:7, 476:10, 476:13, 476:15, 476:19, 479:4, 479:7, 479:9, 479:13, 480:8, 480:22, 480:24, 481:2, 481:3, 481:23, 483:10, 489:7, 489:11, 489:13, 489:15, 489:22, 489:23, 490:3, 490:4, 490:21, 490:24, 490:25, 493:4, 499:18
Property [2] - 257:10, 259:22
proposal [11] - 260:7, 260:8, 260:9, 265:11, 274:17, 275:8, 275:14, 275:16, 275:22, 275:23, 498:20
propose [1] - 447:2
proposed [15] - 275:25, 303:4, 306:11, 322:25, 334:22, 365:11, 388:6, 388:13, 391:8, 394:23, 395:11, 404:8, 496:7, 514:11
Proposed [2] - 257:17, 261:16
proposes [1] - 395:3
protect [2] - 400:13, 404:5
protected [2] - 294:7, 378:3
protecting [1] - 403:5
protection [4] - 349:2, 355:13, 369:10, 404:7
protective [2] - 369:9, 369:18
Protocol [1] - 257:18
protocol [10] - 301:17, 302:13, 302:15, 302:16, 303:5, 309:20, 315:9, 514:22, 519:15, 519:25
proven [1] - 283:8
provide [16] - 281:12, 301:15, 301:18, 302:9, 322:3, 322:20, 333:18, 334:16, 375:21, 376:17, 388:5, 391:25, 479:15, 480:16, 489:13, 501:17
provided [11] - 275:12, 319:9, 346:22, 391:10, 393:20, 410:22, 418:7, 457:18, 458:21, 467:3, 470:16
provides [1] - 295:5
providing [1] - 381:15
proximity [21] - 347:23, 455:15, 455:25, 456:4, 456:19, 456:21, 458:1, 458:10, 460:10, 460:15, 463:21, 468:1, 470:9, 470:11, 470:17, 471:4, 477:11, 477:16, 480:1, 481:3, 506:25
prying [1] - 485:14
PSC [1] - 341:15
Psychological [1] - 258:8
public [4] - 383:12, 383:16, 384:17, 384:18
PUBLIC [2] - 251:1, 251:10
Public [8] - 257:22, 322:12, 396:4, 396:10, 500:3, 500:8, 522:7, 522:18

Publication [1] - 257:22
publications [2] - 326:16, 334:3
published [12] - 303:13, 314:7, 318:3, 320:4, 326:23, 327:10, 334:3, 334:20, 336:3, 359:23, 361:15, 363:2
PUC [11] - 257:22, 290:5, 290:19, 370:14, 370:15, 412:12, 422:23, 444:11, 447:6, 447:18, 455:12
pull [4] - 273:5, 361:21, 370:24, 417:12
pulled [1] - 417:1
pulling [2] - 360:8, 417:15
pulse [1] - 505:23
purchased [3] - 429:4, 467:9, 476:4
purely [1] - 502:1
purpose [4] - 298:23, 302:12, 305:1, 429:24
purposes [7] - 281:9, 281:11, 281:21, 295:16, 321:9, 495:25, 520:3
pursuant [1] - 296:1
pursue [1] - 421:11
purview [1] - 356:25
push [2] - 313:6, 318:14
put [33] - 269:4, 271:16, 271:18, 275:23, 290:17, 298:12, 312:12, 314:9, 315:22, 318:11, 326:3, 346:9, 354:6, 363:6, 378:10, 379:20, 396:7, 404:12, 407:9, 408:23, 415:12, 423:15, 429:6, 429:7, 467:5, 470:1, 480:7, 486:23, 498:1, 507:24, 512:4, 512:5, 516:2
puts [1] - 434:17
putting [5] - 299:20, 300:4, 478:12, 479:18, 498:16

Q

qualify [1] - 285:8
Quality [1] - 258:13
quality [2] - 314:17, 314:18
quantified [1] - 340:10
quantify [1] - 462:7
quarters [1] - 293:14
Queens [1] - 333:20
queried [1] - 270:7
query [1] - 464:12
questioning [4] - 269:1, 297:1, 297:2, 298:23
questions [93] - 262:13, 262:17, 263:2, 263:3, 264:9, 274:21, 283:21, 294:17, 295:20, 297:12, 297:16, 299:12, 302:18, 306:2, 313:24, 316:5, 316:7, 317:16, 323:22, 325:17, 325:23, 330:18, 343:5, 358:25, 368:9, 371:19, 371:22, 371:23, 378:16, 387:21, 387:24, 389:8, 395:17, 395:20, 395:23, 396:25, 400:17, 408:7, 415:16, 417:21, 417:23, 418:13, 429:21, 430:12, 430:20, 431:9, 431:18, 432:1, 434:6, 441:24, 442:1, 442:3, 442:6, 442:8, 442:10, 443:4, 443:6, 454:11, 458:23, 459:3, 459:18, 463:4, 468:7, 468:10, 469:4, 469:7, 469:9, 472:4, 478:20, 478:22, 479:1, 482:12, 482:13, 482:16, 484:23, 485:3, 487:5, 488:21, 490:6, 490:8, 495:17, 497:7, 497:18, 509:12, 511:18, 514:2, 516:10, 518:18, 520:19, 521:8, 521:10, 521:14, 521:16
Questions [18] - 253:6, 253:12, 253:16, 253:20, 254:6, 254:13, 254:16, 254:20, 255:5, 255:7, 255:12, 255:15, 255:17, 255:22, 256:6, 256:9, 256:11, 256:16
queues [1] - 337:1
quick [2] - 330:18, 432:2
quicker [1] - 494:1
quickly [5] - 316:11, 345:6, 457:1, 471:22, 493:24
quiet [2] - 266:14, 470:12
quite [2] - 345:5, 513:11
quote [4] - 410:15, 497:20, 497:21, 499:2
quotes [1] - 349:25
quoting [1] - 411:20

R

R-A-L-L [1] - 439:11
radiofrequency [1] - 434:21
radius [1] - 483:6
railroads [1] - 328:7
rain [2] - 402:2, 402:3
raised [3] - 329:21, 408:3, 408:5
Rall [3] - 260:18, 439:5, 439:11
RALL [1] - 255:13
randomly [1] - 326:11
range [27] - 266:15, 266:21, 267:5, 268:17, 287:16, 304:8, 308:21, 311:24, 311:25, 312:13, 312:14, 312:16, 312:17, 313:3, 319:6, 332:7, 350:20, 453:9, 474:1, 474:3, 474:4, 474:22, 505:10, 506:17, 510:23, 513:12
Range [15] - 262:18, 262:21, 262:23, 262:24, 283:17, 283:20, 283:24, 284:4, 285:6, 285:10, 286:15, 290:6, 290:11, 334:5, 492:10
ranking [1] - 373:3
Raptor [1] - 257:7
raptor [3] - 377:14, 382:22, 394:5
rare [6] - 363:16, 404:5, 405:11, 502:14, 502:19, 513:10
rate [4] - 344:4, 344:5, 470:22, 475:12
re [9] - 385:20, 385:21, 385:23, 385:25, 386:2, 386:4, 386:6, 386:8, 429:6
re-insulated [1] - 429:6
re-vegetate [4] - 385:20, 385:25, 386:4, 386:8
re-vegetated [1] - 386:6
re-vegetating [2] - 385:21, 385:23
re-vegetation [1] - 386:2
reached [1] - 304:11
reaction [2] - 328:23, 363:8
reactions [2] - 362:17, 362:20
read [26] - 264:13, 273:22, 295:24, 349:25, 352:13, 353:5, 357:22, 362:6, 362:8, 362:12, 364:14, 385:17, 399:10, 404:23, 417:7, 434:18, 439:24, 442:14, 465:20, 465:21, 468:14, 479:5, 508:9, 509:22, 519:19
reading [10] - 298:18, 313:3, 345:14, 431:13, 471:8, 484:23, 484:25, 510:4, 515:22, 520:17
readings [5] - 312:9, 312:14, 312:16, 313:8, 314:20
reads [1] - 331:25
real [20] - 270:8, 285:3, 316:11, 320:15, 353:14, 408:17, 411:8, 411:23, 412:22, 452:15, 452:17, 452:20, 453:1, 453:5, 453:9, 463:9, 480:5, 502:24, 503:12, 510:9
Real [2] - 480:9, 480:12
Realistic [2] - 259:9, 259:10
realities [1] - 264:1
reality [1] - 264:7
realize [3] - 283:21, 330:13, 433:19
really [49] - 263:5, 263:11, 266:19, 266:24, 282:17, 282:18, 286:5, 288:24, 293:16, 300:6, 328:18, 332:9, 351:12, 356:20, 380:3, 380:11, 391:16, 393:3, 394:2, 395:7, 396:4, 396:5, 401:17, 412:1, 415:12, 420:10, 430:11, 433:21, 441:19, 447:10, 459:8, 468:11, 469:16, 473:16, 474:3, 480:19, 482:13, 486:13, 487:11, 487:22, 487:23, 502:21, 505:12, 507:2, 512:9, 513:3, 514:6, 515:22, 515:23
realm [1] - 444:25
Realtime [2] - 522:6, 522:19
reargue [1] - 444:2
reason [14] - 287:11, 289:5, 291:9, 328:5, 340:19, 359:19, 363:19, 366:18, 368:22, 395:8, 407:5, 476:2, 479:24, 515:4
reasonable [10] - 343:9, 350:7, 350:21, 359:14, 360:21, 361:5, 369:5, 468:2, 481:18, 500:19
reasonably [1] - 502:23
reasons [1] - 362:17
reassess [1] - 417:13
rebuttal [3] - 364:19,

407:4, 407:9
Rebuttal [17] - 260:6, 260:6, 260:10, 260:10, 260:11, 260:11, 260:12, 274:14, 302:3, 302:14, 334:10, 364:10, 376:11, 385:14, 388:5, 393:19, 495:6
recalling [1] - 445:12
receipt [1] - 505:19
receive [7] - 278:10, 280:11, 402:4, 403:9, 441:2, 470:4, 486:15
received [8] - 291:25, 343:17, 372:12, 376:3, 449:4, 453:6, 486:21, 487:6
receiver [2] - 506:5, 506:6
receiving [5] - 278:7, 279:25, 280:4, 355:9, 373:8
recent [6] - 336:2, 363:2, 393:12, 467:2, 492:2, 514:14
recently [4] - 324:21, 325:1, 465:2, 466:23
receptor [29] - 263:10, 264:2, 265:5, 265:7, 265:12, 271:13, 274:2, 274:19, 277:22, 278:12, 279:25, 281:18, 282:24, 284:12, 284:21, 295:8, 298:25, 299:1, 308:11, 337:19, 337:21, 337:24, 338:3, 338:4, 339:15, 505:19, 505:24
Receptor [2] - 259:8, 259:10
receptor-by-receptor [1] - 281:18
receptors [12] - 265:6, 272:18, 284:23, 285:17, 286:2, 288:16, 288:19, 290:4, 292:13, 297:19, 318:16, 355:8
recess [7] - 262:6, 320:24, 374:24, 409:13, 446:7, 521:22, 521:24
recognize [3] - 453:22, 454:18, 496:2
recognizing [1] - 366:24
recollection [1] - 332:4
recommend [1] - 520:23
recommendation [5] - 351:19, 359:11, 359:17, 511:2, 519:12
recommendations [5] - 359:8, 359:9, 377:9, 400:5, 503:1
recommended [2] - 351:18, 501:16
record [39] - 273:23, 275:20, 275:24, 275:25, 276:14, 276:20, 277:6, 278:13, 281:3, 301:4, 301:9, 316:9, 321:20, 331:24, 333:5, 336:8, 336:9, 352:15, 367:2, 374:22, 375:8, 406:7, 409:10, 423:8, 424:1, 439:9, 445:5, 445:6, 446:20, 452:11, 462:3, 480:11, 494:3, 494:9, 495:25, 514:4, 521:3, 521:4, 521:21
recorded [1] - 465:7
records [3] - 377:20, 491:22, 491:23
recross [4] - 443:4, 490:7, 518:17, 521:7
RECROSS [5] - 277:19, 283:18, 292:11, 294:22, 490:15
Recross [7] - 253:7, 253:8, 254:7, 254:8, 254:8, 254:9, 255:23
RECROSS-EXAMINATION [5] - 277:19, 283:18, 292:11, 294:22, 490:15
Recross-Examination [7] - 253:7, 253:8, 254:7, 254:8, 254:8, 254:9, 255:23
redacted [1] - 422:10
redesign [1] - 498:20
redirect [24] - 274:25, 275:2, 276:11, 277:13, 292:6, 300:17, 320:22, 321:1, 321:2, 332:18, 374:17, 406:1, 406:2, 409:1, 443:13, 451:13, 489:2, 490:8, 492:24, 493:13, 518:18, 521:5, 521:6, 521:8
Redirect [6] - 253:7, 253:21, 254:7, 255:23, 256:6, 256:12
REDIRECT [3] - 275:4, 489:4, 518:20
reduce [4] - 359:15, 374:8, 498:10, 510:6
reduced [2] - 423:3, 511:5
reduces [3] - 360:24, 424:18, 510:20
reducing [1] - 355:14
refer [4] - 338:13, 345:8, 370:3, 397:15
reference [3] - 353:7, 353:17, 378:25
referenced [4] - 336:4, 346:2, 353:18, 361:13
references [1] - 460:20
referencing [2] - 341:7, 345:12
referred [4] - 326:9, 368:8, 456:1, 456:13
referring [20] - 269:16, 297:3, 326:8, 346:8, 348:2, 362:23, 363:9, 365:21, 370:9, 378:22, 384:19, 384:20, 386:5, 399:17, 412:20, 459:23, 459:24, 476:19, 477:22, 507:23
reflect [2] - 268:19, 278:10
reflected [1] - 282:25
reflecting [2] - 282:16, 506:6
reflection [3] - 278:14, 282:9, 282:19
reflective [6] - 278:8, 281:23, 282:5, 282:7, 288:12, 505:2
refresh [2] - 390:3, 509:18
refrigerator [2] - 267:3, 307:16
refrigerators [3] - 306:7, 306:20, 308:3
refuge [1] - 399:3
regard [2] - 338:2, 511:9
regarding [11] - 257:19, 257:20, 259:21, 259:23, 283:22, 314:13, 327:22, 386:17, 388:7, 393:21, 393:23
regards [2] - 455:13, 489:11
region [3] - 303:23, 304:1, 308:4
Register [1] - 465:8
Registered [2] - 522:5, 522:19
regular [1] - 394:11
regulate [1] - 343:13
regulated [1] - 341:18
regulation [6] - 341:19, 346:17, 348:16, 349:5, 349:7, 350:16
regulations [4] - 342:24, 343:22, 345:2, 376:23
regulatory [5] - 500:19, 502:18, 507:19, 519:12, 521:1
REISS [5] - 388:2, 388:4, 395:17, 442:3, 451:20
Reiss [10] - 251:23, 253:6, 253:8, 253:11, 253:20, 255:5, 256:8, 256:11, 256:12, 256:14
relate [3] - 411:22, 411:24, 425:15
related [5] - 301:15, 322:2, 327:10, 453:13, 512:25
Related [1] - 259:15
relates [3] - 318:18, 418:22, 434:25
relating [1] - 411:12
relation [5] - 272:12, 283:24, 329:10, 467:17, 514:11
relationship [3] - 271:24, 317:24, 484:15
relative [2] - 296:20, 517:17
relatively [1] - 496:22
released [1] - 326:23
relevant [9] - 305:16, 452:21, 453:7, 480:8, 480:18, 480:23, 481:6, 481:22, 495:6
reliable [2] - 315:16, 410:23
relied [2] - 414:13, 507:20
rely [3] - 414:10, 414:15, 414:24
remain [3] - 381:9, 392:22, 503:2
remains [1] - 498:3
remember [13] - 272:5, 287:19, 311:8, 438:2, 459:11, 465:11, 467:20, 467:24, 474:2, 487:19, 491:16, 501:10, 507:24
remind [3] - 262:10, 429:22, 478:22
remnants [4] - 285:10, 285:12, 285:13, 285:14
remodel [1] - 476:3
remodeled [1] - 475:11
remodeling [1] - 475:16
remote [2] - 496:22, 497:1
remove [3] - 416:2, 416:6, 477:9
removed [1] - 418:16
repair [1] - 429:9
repeat [3] - 404:10, 412:8, 446:18
repeated [1] - 373:14
rephrase [2] - 381:23, 394:19
rephrases [1] - 340:13
report [15] - 290:9, 290:14, 311:19, 323:12, 327:13, 342:16, 346:23, 363:20, 368:3, 500:13, 507:15, 507:22, 507:23, 508:4
Report [13] - 257:5, 257:5, 257:6, 257:7, 257:7, 257:8, 257:8, 257:9, 259:6, 259:7, 345:21, 345:25, 346:6

reported [6] - 312:15, 335:10, 368:25, 470:24, 471:2, 473:19
Reported [4] - 251:24, 258:4, 258:7, 258:9
Reporter [5] - 331:25, 522:6, 522:19, 522:19
reporter [11] - 300:25, 321:16, 333:1, 369:16, 375:4, 423:9, 423:22, 439:6, 452:7, 494:5, 522:9
reporter's [1] - 338:25
Reporting [1] - 251:25
reporting [2] - 281:9, 361:20
reports [6] - 323:2, 326:23, 335:17, 345:24, 357:12, 365:15
represent [1] - 497:15
request [3] - 346:21, 354:6, 449:5
requested [3] - 310:12, 314:4, 417:6
requests [1] - 406:20
Requests [2] - 449:25, 450:1
required [5] - 310:13, 383:19, 479:12, 502:11, 514:16
requirements [4] - 370:7, 401:23, 402:8, 447:22
requires [2] - 362:22, 370:7
rescue [1] - 361:25
research [23] - 303:7, 303:8, 303:14, 305:10, 319:19, 323:8, 334:2, 342:12, 343:8, 455:12, 455:17, 457:19, 460:8, 463:7, 463:16, 464:18, 466:17, 466:22, 466:25, 477:13, 477:22, 478:1, 490:2
researched [2] - 305:9, 474:13
researcher [2] - 319:25, 335:23
researching [2] - 479:20, 483:9
residence [6] - 306:10, 462:20, 471:5, 474:14, 477:11, 505:20
residences [4] - 323:17, 332:5, 477:24, 501:18
resident [1] - 371:6
residential [13] - 453:11, 455:15, 458:1, 459:19, 461:21, 463:12, 464:3, 465:1, 470:8, 478:5, 478:10, 481:1, 507:1
residents [8] - 335:2, 335:3, 335:5, 336:12, 336:16, 337:6, 342:15, 499:19
Residents [2] - 258:15, 336:7
resistance [1] - 403:11
resistivity [3] - 504:11, 504:14, 504:17
resold [1] - 467:9
resolution [1] - 289:23
resolve [1] - 262:13
resolved [1] - 413:16
resource [1] - 377:19
Resources [3] - 257:5, 259:24, 303:12
resources [11] - 375:20, 376:2, 376:21, 377:1, 377:2, 377:21, 378:4, 378:5, 378:11, 387:18, 405:15
respect [4] - 273:25, 282:15, 305:21, 448:23
respective [1] - 411:8
respectively [1] - 376:5
respond [3] - 315:17, 498:19, 498:21
responded [1] - 449:6
respondents [1] - 371:6
responding [1] - 434:10
response [19] - 262:17, 281:22, 311:3, 311:5, 324:5, 347:7, 354:6, 389:7, 410:12, 414:2, 415:4, 415:11, 443:8, 445:14, 448:18, 449:10, 449:22, 449:23, 450:21
Response [1] - 260:12
responses [1] - 449:25
Responses [5] - 260:23, 261:3, 261:4, 261:5, 261:9
responsibilities [3] - 452:18, 452:19, 494:18
responsible [1] - 375:14
rest [5] - 293:6, 406:9, 406:25, 415:25, 417:3
restating [1] - 397:5
rested [1] - 409:7
resubmit [1] - 422:12
Result [1] - 259:9
result [7] - 283:11, 295:23, 327:2, 328:12, 361:1, 444:3, 486:25
resulted [1] - 345:25
resulting [1] - 361:2
results [9] - 259:10, 260:9, 274:16, 276:23, 277:5, 309:17, 311:21, 340:5, 488:17
Results [3] - 259:8, 259:10, 259:11
resume [1] - 314:16
Resume [4] - 257:13, 257:14, 257:15, 257:17
retain [2] - 356:21, 357:7
retained [2] - 358:15, 494:23
retired [1] - 459:12
retort [1] - 514:9
revelation [1] - 263:23
Revenues [1] - 257:16
review [9] - 321:25, 322:21, 351:7, 379:18, 380:3, 389:25, 394:22, 502:5
Review [1] - 258:16
reviewed [9] - 303:13, 319:23, 320:4, 334:20, 336:2, 359:23, 363:21, 494:25, 495:3
revision [1] - 507:17
revisions [1] - 495:4
revolves [1] - 263:5
Rich [1] - 257:16
RICH [1] - 254:10
Richard [5] - 257:17, 260:10, 300:24, 301:5, 301:10
Richter [16] - 456:14, 457:23, 464:25, 465:6, 479:4, 479:12, 479:23, 481:10, 482:13, 484:24, 485:2, 485:21, 485:24, 489:7, 489:15, 489:21
Richters [1] - 487:3
RIDGE [1] - 251:4
Ridge [132] - 251:17, 257:3, 262:4, 262:7, 262:22, 275:14, 276:15, 277:11, 281:19, 283:25, 284:5, 285:7, 291:11, 291:20, 291:21, 291:22, 291:23, 291:24, 291:25, 292:1, 292:3, 293:19, 296:22, 297:4, 297:6, 300:17, 300:23, 301:13, 302:16, 314:2, 314:12, 314:17, 314:21, 320:25, 321:24, 322:23, 323:15, 325:3, 332:17, 332:22, 333:10, 333:11, 333:12, 334:6, 334:22, 335:20, 336:1, 337:4, 356:21, 357:7, 357:15, 359:12, 359:21, 374:16, 375:2, 375:12, 375:15, 376:19, 377:3, 377:8, 379:19, 383:17, 385:18, 386:18, 388:16, 389:3, 391:11, 391:13, 391:23, 393:7, 393:21, 393:22, 395:1, 395:5, 395:13, 396:12, 396:14, 396:17, 397:24, 400:10, 402:20, 403:1, 403:10, 404:15, 405:12, 405:18, 405:19, 406:8, 406:11, 407:9, 408:17, 412:17, 413:5, 413:6, 418:15, 420:12, 422:24, 425:12, 426:10, 428:24, 433:6, 438:6, 438:8, 440:7, 440:8, 441:16, 443:7, 444:9, 446:10, 447:1, 447:16, 456:17, 458:25, 460:21, 460:24, 472:23, 483:20, 484:17, 490:9, 492:8, 492:9, 496:11, 497:10, 510:2, 510:11, 517:7, 520:1, 520:2, 520:13, 521:9
Ridge's [3] - 375:1, 395:14, 502:2
right-of-way [1] - 453:12
rights [9] - 364:6, 411:24, 412:3, 412:9, 418:25, 419:1, 419:24, 428:18, 432:10
Riina_Bray_IWT_Niagara [1] - 260:23
ring [2] - 324:22, 388:10
ringing [2] - 327:25, 328:13
rising [2] - 339:3, 339:4
risk [12] - 328:10, 329:24, 329:25, 335:4, 337:6, 356:10, 357:23, 357:25, 358:11, 365:23, 365:25, 366:16
Rislov [1] - 251:14
river [4] - 386:17, 386:19, 386:23, 386:25
RL-1 [1] - 257:17
RL-2 [1] - 257:17
RL-3 [1] - 257:18
RL2 [2] - 303:3, 303:4
RL3 [3] - 302:24, 303:6, 316:18
RM-S-1 [1] - 259:14
RM-S-2 [1] - 259:14
RM-S-3 [1] - 259:15
RM-S-4 [1] - 259:15
RM-S-5 [1] - 259:17
RM-S-6 [1] - 259:18
RM-S-7 [1] - 259:19

RMS-2 [1] - 326:10
road [15] - 270:1, 270:5, 344:10, 344:14, 344:24, 363:11, 366:9, 366:11, 366:12, 379:14, 383:12, 383:22, 384:25, 481:16, 492:4
roads [2] - 383:16, 384:18
roadway [6] - 344:9, 345:10, 366:13, 366:16, 384:22, 385:5
roadways [2] - 366:7, 366:22
Robert [2] - 259:13, 321:21
ROBERT [1] - 254:14
Robish [26] - 251:21, 253:5, 253:15, 253:19, 254:8, 254:19, 256:5, 256:15, 292:9, 292:10, 294:24, 295:14, 315:2, 325:19, 367:12, 367:16, 387:23, 414:1, 430:19, 441:25, 452:1, 468:9, 493:10, 511:22, 511:23, 521:15
ROBISH [23] - 292:10, 292:12, 293:2, 293:5, 293:8, 293:11, 294:15, 315:3, 325:20, 367:14, 369:20, 387:24, 430:20, 442:1, 468:10, 468:13, 468:18, 468:25, 493:11, 511:23, 512:1, 513:22, 521:16
Robish's [1] - 297:2
role [10] - 301:13, 301:15, 321:24, 333:10, 333:11, 335:7, 335:22, 361:10, 375:12, 502:1
roof [2] - 429:10, 475:5
room [7] - 278:22, 278:23, 278:24, 289:16, 343:25, 443:21, 475:5
rotating [1] - 345:1
rotor [1] - 516:19
rough [1] - 295:9
roughly [2] - 308:21, 506:16
royal [1] - 333:23
RPR [1] - 251:24
RR [1] - 453:3
rule [1] - 370:19
ruler [6] - 271:15, 271:16, 271:18, 271:19, 271:22, 285:2
rules [2] - 287:19, 443:15
Rules [5] - 409:24, 410:6, 414:8, 414:11, 414:16
ruling [1] - 443:17
run [3] - 373:19, 420:24, 494:14
running [2] - 294:2, 460:25
runs [1] - 379:14
rural [27] - 266:14, 267:10, 287:17, 306:10, 311:1, 371:15, 457:25, 460:9, 463:12, 464:3, 465:1, 466:17, 466:18, 467:25, 470:8, 470:13, 473:25, 474:14, 477:11, 477:24, 478:4, 478:10, 481:1, 482:23, 484:1, 484:12, 517:22
rustling [1] - 312:25

S

S1 [3] - 261:12, 296:9, 296:10
S2 [5] - 261:12, 495:9, 497:19, 499:15, 519:17
S3 [1] - 261:13
S4 [1] - 261:14
S5 [3] - 261:14, 453:20, 454:6
S6 [3] - 261:15, 454:16, 484:22
S7 [4] - 261:16, 295:16, 496:1, 514:11
safe [2] - 307:4, 440:20
safety [4] - 316:2, 384:16, 384:19, 510:23
sale [43] - 428:19, 455:5, 455:20, 456:10, 456:14, 456:15, 456:17, 456:24, 456:25, 457:1, 457:7, 457:15, 457:23, 458:1, 458:2, 458:6, 462:24, 463:10, 463:15, 464:14, 465:8, 465:10, 466:25, 467:8, 474:6, 478:10, 479:23, 481:13, 483:13, 483:14, 483:19, 485:21, 485:24, 486:2, 486:8, 486:11, 486:24, 489:21, 491:2, 491:16, 491:23
sales [55] - 454:3, 454:9, 455:17, 455:18, 455:22, 456:1, 456:2, 456:6, 456:9, 457:19, 457:24, 460:9, 460:14, 460:20, 460:22, 460:23, 461:3, 462:17, 463:10, 463:17, 463:20, 463:24, 464:2, 464:3, 464:10, 464:13, 465:6, 466:5, 466:22, 467:1, 470:20, 471:17, 471:21, 473:6, 473:12, 474:13, 474:20, 474:23, 477:15, 478:3, 478:8, 478:10, 479:20, 481:5, 483:9, 485:22, 486:7, 488:5, 488:7, 488:13, 491:18
samples [2] - 336:12, 336:18
SAPPINGTON [1] - 255:3
Sappington [7] - 257:12, 259:20, 260:11, 321:13, 375:3, 375:9, 406:3
SARAH [1] - 255:3
Sarah [6] - 257:12, 259:20, 260:11, 321:13, 375:3, 375:9
satisfy [1] - 370:18
saw [2] - 486:4, 496:19
scale [5] - 285:2, 287:25, 298:5, 372:16, 373:10
scatter [1] - 503:15
scenario [1] - 277:4
scenery [1] - 470:13
schedule [1] - 408:23
School [1] - 322:12
school [5] - 267:19, 270:15, 297:9, 459:9, 484:16
schools [1] - 484:11
SCHUMACHER [17] - 300:23, 301:2, 302:18, 321:2, 375:2, 375:6, 378:12, 381:12, 381:15, 406:2, 409:17, 413:11, 415:5, 428:25, 429:18, 440:13, 441:17
Schumacher [7] - 251:17, 253:14, 254:11, 255:4, 411:18, 414:21, 415:4
Science [1] - 301:25
science [7] - 301:25, 322:6, 333:20, 356:4, 356:6, 357:1, 360:1
sciences [2] - 333:22, 356:6
scientific [10] - 288:21, 334:3, 334:19, 334:20, 335:8, 335:24, 337:2, 357:19, 368:6, 368:23
scientist [2] - 333:8, 359:9
scope [9] - 292:6, 340:4, 361:8, 383:3, 385:1, 395:12, 433:18, 443:13, 478:4
Scores [1] - 258:9
screens [1] - 315:16
SD [2] - 259:21, 259:23
se [3] - 251:20, 251:22, 294:10
sea [2] - 413:24, 437:11
search [1] - 377:20
searches [3] - 326:22, 395:24, 464:12
seasonal [1] - 491:9
second [9] - 296:16, 340:20, 352:12, 364:11, 371:8, 372:9, 385:15, 412:4, 412:15
Second [2] - 261:5, 261:5
section [1] - 386:20
Section [2] - 386:23, 390:14
sectional [3] - 326:4, 326:7, 326:10
see [81] - 263:23, 270:20, 270:21, 270:24, 271:1, 271:2, 273:15, 278:17, 284:14, 287:12, 289:14, 297:11, 316:11, 317:15, 320:18, 325:12, 326:22, 331:1, 331:22, 335:13, 338:9, 342:18, 343:6, 348:25, 349:17, 353:10, 360:22, 361:2, 364:17, 366:25, 367:25, 368:25, 372:23, 372:24, 373:1, 373:4, 374:9, 379:4, 379:11, 382:15, 392:6, 392:10, 393:1, 393:3, 393:13, 402:16, 408:8, 410:3, 411:14, 423:5, 423:11, 423:16, 428:16, 430:15, 432:16, 436:15, 463:18, 464:17, 471:20, 472:4, 472:5, 472:8, 472:14, 472:21, 473:3, 475:23, 479:8, 483:5, 484:13, 485:8, 487:16, 491:23, 495:9, 502:6, 502:14, 505:20, 506:10, 507:11, 516:7
seed [2] - 385:19, 386:8
seeing [12] - 342:8, 344:4, 344:21, 368:6, 368:15, 369:4, 373:5, 402:24, 450:5, 473:5, 488:17,

515:23
seem [5] - 350:7, 397:18, 427:18, 467:14, 496:17
seemingly [1] - 403:11
seizure [1] - 329:23
Seizures [2] - 258:19, 259:19
seizures [1] - 330:2
selected [1] - 326:12
selective [2] - 437:22, 437:23
Self [3] - 258:4, 258:7, 258:9
self [2] - 424:6
self-employed [2] - 424:6
Self-Reported [3] - 258:4, 258:7, 258:9
sell [10] - 428:2, 458:11, 463:19, 464:18, 467:14, 471:22, 474:3, 474:22, 476:7, 492:23
seller [17] - 456:19, 457:10, 457:14, 458:9, 462:11, 462:22, 467:3, 470:16, 470:24, 471:2, 471:16, 473:19, 475:15, 476:18, 481:4, 493:7
seller's [1] - 467:11
sellers [1] - 457:9
selling [13] - 455:15, 455:23, 456:3, 456:25, 457:8, 466:3, 467:15, 470:8, 471:18, 473:6, 473:9, 477:15, 489:25
senior [1] - 333:7
sense [5] - 315:16, 411:3, 412:1, 496:17, 497:25
sensible [1] - 520:17
sensitive [9] - 370:8, 370:9, 370:13, 370:21, 376:21, 380:16, 458:4, 468:19, 481:24
sensitivity [1] - 266:12
sensor [3] - 264:5, 286:19, 286:24
sentence [15] - 352:20, 352:25, 353:3, 353:16, 362:11, 364:14, 386:7, 416:1, 416:9, 416:14, 417:3, 417:10, 418:10, 418:12, 499:11
sentences [1] - 412:17
separate [1] - 311:6
separately [1] - 335:6
September [7] - 264:14, 273:6, 273:11, 322:14, 334:9, 347:3, 376:9
series [4] - 310:14, 336:2, 368:9, 371:9
serious [2] - 405:10, 405:13
seriously [1] - 468:21
service [1] - 357:7
Service [11] - 377:5, 380:14, 389:22, 390:6, 390:11, 391:6, 393:11, 393:13, 402:22, 424:7, 500:3
services [2] - 356:21, 452:19
session [1] - 446:8
set [9] - 281:15, 302:17, 307:2, 320:8, 329:17, 341:15, 409:12, 414:23, 478:6
Set [4] - 261:3, 261:5, 261:6, 261:9
setback [2] - 383:18, 384:1
setbacks [1] - 472:25
setting [6] - 287:17, 315:18, 328:4, 339:3, 339:9, 510:23
settings [4] - 328:8, 330:10, 332:8, 517:22
seven [4] - 456:5, 461:3, 478:7, 509:2
several [4] - 347:15, 379:22, 444:21, 476:9
shaded [1] - 263:19
shading [4] - 353:6, 353:15, 362:13, 362:18
Shadow [5] - 257:9, 258:20, 259:7, 259:9, 260:8
shadow [163] - 259:10, 263:6, 263:11, 263:14, 264:6, 264:14, 265:13, 265:19, 270:21, 270:23, 270:24, 271:2, 271:6, 271:8, 272:3, 272:14, 273:25, 278:2, 278:7, 278:10, 278:13, 278:15, 278:18, 278:20, 278:22, 278:23, 278:25, 279:2, 279:3, 279:7, 279:12, 279:14, 279:20, 279:23, 280:1, 280:2, 280:11, 281:12, 289:24, 299:14, 299:15, 299:18, 299:21, 299:23, 300:5, 323:15, 329:10, 329:11, 329:15, 329:22, 330:1, 330:7, 330:11, 334:25, 336:20, 337:3, 337:20, 337:22, 338:1, 338:8, 338:13, 338:16, 339:2, 339:10, 339:16, 339:17, 340:8, 340:9, 340:22, 341:5, 341:8, 341:9, 341:13, 341:16, 341:17, 341:19, 341:21, 341:24, 342:4, 342:9, 342:11, 342:20, 342:24, 343:3, 343:7, 343:10, 343:14, 343:15, 343:21, 344:11, 344:14, 344:15, 344:19, 344:21, 345:1, 345:5, 345:9, 345:11, 346:8, 346:16, 346:23, 347:5, 347:20, 348:1, 348:4, 348:12, 348:15, 350:6, 350:7, 350:11, 350:25, 351:19, 353:7, 353:14, 354:4, 354:7, 354:11, 354:25, 355:9, 356:13, 359:13, 359:14, 359:23, 360:23, 361:1, 362:16, 363:23, 365:1, 366:24, 366:25, 367:24, 368:1, 368:8, 368:12, 368:13, 368:16, 370:16, 372:18, 385:7, 428:5, 428:6, 428:7, 434:20, 441:2, 444:14, 447:7, 448:9, 462:8, 462:16, 462:19, 467:4, 467:13, 472:16, 473:3, 501:23, 501:25
shadow's [3] - 338:10, 338:19, 339:11
shadowing [1] - 343:4
shadows [6] - 343:6, 344:9, 366:7, 366:13, 384:22, 385:5
shall [1] - 340:22
shared [6] - 490:2, 490:17, 491:4, 491:11, 491:13, 492:3
sharp [1] - 263:3
shed [1] - 429:7
sheer [1] - 503:11
sheet [1] - 504:25
sheriff [1] - 433:15
shift [3] - 392:19, 392:22, 393:6
shine [3] - 354:14, 354:18, 355:22
shining [1] - 354:14
ship [1] - 413:23
Shirley [9] - 260:21, 365:4, 365:5, 508:20, 509:1, 509:7, 512:13, 518:22, 519:9
shooting [1] - 436:12
short [14] - 301:18, 302:9, 309:12, 320:24, 322:3, 322:20, 333:18, 334:16, 375:21, 376:17, 409:13, 432:3, 446:7, 471:24
shorten [2] - 447:12, 448:18
shorthand [3] - 432:2, 522:9
show [19] - 277:11, 280:20, 294:13, 294:15, 312:9, 317:20, 335:8, 365:18, 412:5, 456:2, 456:10, 458:2, 458:3, 464:2, 473:8, 485:23, 495:24
showed [2] - 276:4, 471:3
showing [3] - 388:22, 35 486:7, 486:8
shown [4] - 306:23, 323:8, 323:11, 369:8
shows [7] - 263:10, 280:22, 280:23, 318:11, 470:20, 474:21, 485:25
shut [4] - 407:19, 408:19, 419:19, 433:7
shutdowns [1] - 310:15
sic [4] - 425:19, 452:18, 453:2, 453:3
sick [1] - 361:18
side [4] - 366:11, 428:11, 474:18
siding [1] - 429:10
sight [2] - 289:12, 372:3
sign [1] - 486:22
signature [1] - 305:15
significant [7] - 374:5, 418:15, 470:24, 475:14, 475:17, 476:3, 516:22
significantly [2] - 373:14, 502:23
signs [1] - 451:2
silver [1] - 494:11
similar [25] - 316:19, 317:17, 326:18, 336:17, 348:10, 350:9, 351:11, 353:25, 354:5, 354:9, 355:3, 357:12, 358:25, 361:12, 368:10, 370:14, 371:14, 371:17, 395:2, 395:4, 396:8, 443:15, 498:14, 514:16, 514:17
similarities [1] - 317:19
Simko [2] - 419:14, 419:18
simple [2] - 515:4, 517:2
simplify [1] - 350:15
simply [11] - 303:11, 340:7, 344:15, 345:5, 361:4, 411:14, 414:20, 420:20, 500:10, 517:1, 520:20
single [6] - 298:24, 299:2, 399:16, 399:21, 446:15

singular [1] - 398:11
Sioux [7] - 419:14, 452:13, 471:23, 483:5, 483:6, 483:7, 484:14
sit [2] - 351:21, 487:15
site [9] - 376:20, 387:8, 455:20, 462:14, 463:22, 470:11, 472:22, 489:11, 497:24
site-specific [1] - 376:20
sited [6] - 334:23, 366:9, 380:22, 383:12, 384:7, 512:8
sites [2] - 496:21, 502:25
siting [9] - 333:15, 377:25, 378:2, 378:7, 380:20, 384:16, 384:24, 385:3, 447:22
sitting [1] - 503:13
situated [2] - 344:24, 429:13
situation [3] - 267:6, 447:20, 513:13
situations [2] - 408:12, 470:2
six [9] - 284:7, 284:9, 334:3, 382:8, 461:3, 463:24, 478:7, 496:21, 509:2
sixth [1] - 470:23
sizable [1] - 467:18
size [2] - 325:14, 378:25
Skipper [1] - 257:6
skipper [1] - 377:15
Skipper-Poweshiek [1] - 257:6
skipperling [1] - 377:15
Skipperling [1] - 257:7
sky [1] - 344:1
sleep [19] - 267:14, 267:20, 317:24, 324:13, 324:16, 327:1, 327:5, 327:12, 327:16, 327:20, 331:15, 331:21, 368:20, 369:1, 369:2, 369:7, 374:6
Sleep [3] - 258:5, 258:6, 258:7
sleet [1] - 505:1
slightly [4] - 336:19, 412:13, 412:25, 414:19
sling [1] - 384:22
slowly [1] - 362:12
small [11] - 335:19, 336:22, 372:6, 373:11, 399:5, 431:5, 435:9, 435:11, 516:23, 517:19, 518:8
smaller [2] - 365:11, 473:25
snow [28] - 267:24, 268:3, 268:8, 268:12, 268:15, 268:16, 268:18, 268:20, 268:25, 281:23, 281:24, 282:6, 288:4, 288:5, 288:9, 314:23, 504:3, 504:9, 504:10, 504:14, 504:17, 504:18, 504:21, 504:25, 505:3, 518:12
so-called [2] - 337:18, 449:6
soccer [1] - 270:16
Society's [2] - 259:21, 259:23
software [1] - 272:16
soil [1] - 402:9
sold [17] - 407:24, 456:6, 456:23, 460:10, 465:2, 466:4, 467:6, 470:20, 472:12, 473:17, 473:22, 474:1, 474:7, 476:4, 477:25, 489:14, 492:25
solid [1] - 282:12
solidly [1] - 482:5
soliloquy [1] - 421:3
someone [10] - 307:6, 307:10, 329:23, 368:3, 432:21, 447:3, 467:18, 476:16, 481:16, 515:16
sometime [1] - 491:17
sometimes [8] - 328:4, 373:23, 432:3, 432:4, 472:11, 473:3, 491:6, 516:6
somewhat [4] - 308:14, 316:21, 317:18, 398:21
somewhere [7] - 309:12, 311:3, 348:19, 413:23, 419:7, 462:4, 501:4
sorry [31] - 296:11, 296:23, 301:10, 339:20, 352:4, 352:8, 352:12, 353:3, 364:11, 364:20, 364:22, 394:19, 394:21, 399:9, 404:23, 408:8, 420:11, 424:15, 427:11, 431:3, 434:3, 437:15, 437:24, 438:2, 445:18, 460:1, 469:7, 476:20, 494:2
sort [12] - 268:7, 307:7, 309:3, 312:9, 317:2, 349:5, 416:21, 443:7, 494:21, 500:24, 502:6, 513:9
Sorted [2] - 259:8, 259:10
sorts [3] - 395:24, 488:4, 504:19
sought [2] - 409:19, 425:16
Sound [9] - 257:8, 257:18, 258:7, 259:6, 259:8, 259:9, 259:16, 260:7
sound [126] - 266:14, 267:2, 267:24, 268:2, 268:4, 268:8, 282:15, 282:21, 282:23, 285:14, 286:24, 287:18, 288:5, 288:6, 288:12, 288:13, 288:17, 289:20, 290:6, 290:18, 291:3, 292:17, 292:21, 295:3, 297:24, 298:2, 298:3, 298:10, 298:12, 298:13, 298:15, 301:15, 301:17, 302:13, 303:4, 303:21, 303:25, 304:6, 304:13, 305:15, 306:7, 306:14, 306:16, 307:24, 308:1, 309:1, 309:5, 309:10, 309:13, 309:14, 309:15, 309:16, 309:18, 309:20, 309:24, 310:5, 310:21, 311:25, 312:22, 312:25, 313:6, 313:7, 314:3, 316:23, 317:3, 317:24, 318:16, 318:22, 318:24, 319:8, 319:9, 322:22, 323:15, 327:22, 335:1, 335:9, 335:18, 337:2, 351:16, 364:25, 369:5, 372:5, 372:7, 372:16, 448:9, 461:22, 461:23, 461:25, 462:1, 462:2, 462:5, 493:2, 496:18, 498:13, 499:3, 499:17, 500:10, 502:9, 503:8, 503:12, 503:16, 503:25, 504:12, 505:6, 505:11, 505:23, 506:6, 506:20, 510:7, 511:4, 512:22, 512:25, 513:16, 513:20, 514:25, 515:5, 515:9, 516:19, 519:15, 519:25, 520:3, 520:6
sound-related [1] - 301:15
sounded [1] - 421:10
sounds [3] - 309:18, 438:5, 469:15
source [9] - 282:24, 307:21, 307:25, 309:15, 309:16, 463:21, 505:24, 506:4, 506:9
sources [6] - 288:7, 306:25, 309:14, 309:18, 312:7, 313:7
Sources [2] - 258:12, 259:17
South [45] - 251:25, 252:4, 268:21, 311:11, 316:15, 334:4, 348:10, 349:7, 354:16, 366:20, 371:14, 371:15, 377:5, 380:15, 387:3, 387:5, 393:11, 394:13, 396:23, 397:14, 400:22, 402:24, 419:16, 424:4, 428:10, 452:16, 453:10, 455:18, 456:16, 457:20, 458:4, 458:8, 459:9, 468:23, 484:10, 485:22, 486:17, 487:11, 488:20, 492:19, 501:13, 501:14, 515:21, 522:7, 522:13
south [4] - 391:22, 441:5, 456:16, 501:14
SOUTH [2] - 251:2, 522:1
southeast [1] - 387:2
southwest [1] - 440:7
space [1] - 338:14
spaced [2] - 312:20, 366:11
spacing [1] - 287:7
speaking [5] - 268:18, 324:11, 412:23, 413:1, 463:11
special [1] - 413:13
specialize [1] - 494:19
Species [1] - 390:14
species [16] - 378:10, 380:16, 382:14, 390:15, 390:16, 391:8, 392:6, 400:1, 401:2, 401:6, 401:9, 403:6, 404:5, 404:22, 405:11, 405:13
specific [16] - 308:7, 323:5, 364:17, 376:20, 391:18, 391:20, 396:13, 401:17, 401:23, 460:6, 461:8, 461:13, 464:15, 478:3, 498:20, 505:1
specifically [19] - 316:25, 327:4, 329:18, 334:4, 334:24, 357:16, 382:7, 382:10, 387:17, 388:19, 390:6, 400:10, 402:8, 472:23, 480:6, 488:14, 496:18, 504:10, 520:3
specifics [1] - 475:18
specified [1] - 409:20
spectrum [4] - 266:17, 505:10, 506:11,

513:12
speculate [1] - 449:19
speed [3] - 264:25, 366:23, 503:15
spell [2] - 423:25, 439:9
spelled [2] - 333:6, 362:15
spent [1] - 453:12
spikes [1] - 503:5
spinning [1] - 343:17
split [1] - 274:13
sponsored [5] - 302:24, 347:7, 351:8, 351:15, 359:11
spot [1] - 521:6
spotted [1] - 404:23
sprayers [1] - 408:4
spraying [1] - 408:13
spread [2] - 385:18, 498:7
spring [3] - 383:7, 383:8, 386:1
square [4] - 289:23, 431:2, 431:5, 431:6
SRA [1] - 453:2
SRWA [1] - 453:6
SS [2] - 453:2, 522:2
SS-S-1 [1] - 259:21
SS-S-2 [1] - 259:23
St [1] - 494:11
Staff [52] - 251:23, 261:3, 261:4, 294:20, 302:14, 315:5, 325:22, 346:21, 346:22, 347:3, 354:6, 369:22, 388:1, 388:6, 394:23, 396:7, 396:17, 396:18, 412:12, 412:18, 414:3, 414:5, 415:18, 421:18, 423:3, 430:22, 442:2, 443:4, 446:23, 449:5, 451:18, 451:20, 452:4, 452:6, 453:20, 454:16, 455:12, 478:12, 482:10, 489:2, 493:12, 493:19, 494:4, 494:23, 495:9, 496:14, 501:7, 502:1, 511:2, 511:9, 518:17, 521:6
STAFF [1] - 251:13
staff [12] - 375:20, 389:1, 394:9, 394:13, 395:7, 396:3, 400:7, 404:17, 404:19, 405:3, 405:14, 406:11
Staff's [7] - 261:3, 261:4, 261:9, 418:8, 422:23, 444:4, 514:11
STAFF'S [3] - 255:19, 256:2, 261:11
stage [1] - 311:10
stand [2] - 262:9, 404:13
standard [20] - 295:11, 341:5, 341:8, 346:24, 347:20, 348:1, 348:8, 348:20, 349:7, 350:22, 351:4, 353:22, 353:23, 354:8, 354:24, 355:2, 355:5, 429:24, 518:5
standards [7] - 316:25, 317:8, 334:24, 343:9, 348:5, 348:8, 378:7
standing [4] - 445:11, 445:23, 446:10, 450:4
standpoint [2] - 317:18, 318:13
stands [2] - 314:10, 498:4
Stanton [2] - 507:23, 508:8
Stanton's [1] - 345:24
starlings [1] - 405:6
start [12] - 290:11, 374:10, 380:4, 416:9, 469:7, 469:8, 469:9, 469:15, 484:17, 485:13, 486:21, 489:23
started [7] - 330:19, 346:17, 350:18, 449:4, 479:24, 484:19, 488:11
starting [5] - 320:12, 418:12, 453:10, 469:16, 472:14
starts [5] - 284:5, 340:22, 352:22, 364:16, 364:23
STATE [2] - 251:2, 522:1
state [31] - 301:3, 307:5, 318:9, 319:2, 321:19, 333:4, 348:23, 351:13, 351:21, 351:24, 354:17, 375:7, 377:1, 377:3, 377:8, 396:14, 398:10, 402:3, 411:7, 411:25, 423:25, 427:6, 439:9, 447:22, 450:1, 452:10, 452:15, 452:17, 483:14, 494:8, 517:10
State [11] - 259:21, 259:23, 301:24, 341:15, 349:7, 351:8, 351:13, 367:3, 377:5, 443:14, 522:7
State's [1] - 433:15
statement [22] - 262:20, 264:20, 332:2, 359:4, 367:18, 370:6, 417:14, 417:15, 418:19, 427:15, 432:7, 432:24, 438:10, 441:9, 478:20, 479:4, 479:6, 483:25, 484:2, 499:2, 511:5, 516:8
statements [4] - 262:12, 411:19, 421:18, 441:9
states [6] - 343:21, 345:3, 347:25, 348:18, 373:20
States [33] - 301:22, 336:4, 336:16, 343:13, 343:21, 347:23, 350:4, 350:8, 350:18, 351:4, 360:22, 363:24, 366:5, 366:19, 371:2, 371:13, 371:16, 373:3, 376:23, 376:25, 377:4, 378:1, 378:3, 380:7, 380:14, 391:2, 393:10, 393:12, 400:21, 402:21, 408:8, 424:7, 428:2
static [3] - 392:18, 392:22, 398:8
stations [1] - 424:10
statistic [1] - 461:24
statistical [1] - 466:20
statistically [1] - 466:9
Status [3] - 259:4, 260:4, 260:17
statute [7] - 367:6, 370:4, 370:13, 370:18, 414:12, 419:2, 419:19
statutory [2] - 419:12, 437:7
stay [2] - 303:6, 368:23
step [9] - 290:1, 300:20, 321:5, 332:21, 374:20, 439:2, 442:12, 493:16, 521:18
stepping [1] - 263:4
steps [1] - 393:21
Steven [4] - 260:18, 308:9, 437:11, 437:14
stick [5] - 270:19, 288:22, 289:1, 297:9
still [19] - 262:10, 294:9, 308:5, 313:2, 320:4, 345:11, 375:1, 389:5, 393:16, 407:12, 431:12, 440:17, 446:9, 480:2, 482:12, 486:13, 498:3, 498:23, 516:23
stipulate [1] - 417:9
stipulated [2] - 275:23, 302:17
stipulation [1] - 415:6
stop [6] - 284:3, 331:21, 382:24, 392:3, 422:18, 432:23
stopover [4] - 391:21, 392:24, 401:19, 401:25
stopovers [1] - 403:17
straight [2] - 427:25, 428:12
Strandburg [1] - 292:22
strategy [3] - 393:25, 394:2, 403:4
stray [1] - 392:10
stream [1] - 377:19
Street [2] - 284:5, 452:13
street [4] - 284:6, 383:18, 383:20, 383:21
Stress [1] - 258:15
stress [11] - 324:13, 336:6, 336:11, 362:17, 362:20, 363:8, 363:10, 363:22, 363:24, 364:1, 374:5
stressors [1] - 356:11
stretch [1] - 416:20
stricken [2] - 410:9, 416:22
Strike [8] - 409:16, 413:20, 414:7, 422:5, 422:15, 424:14, 424:18, 425:4
strike [6] - 303:5, 409:19, 411:14, 412:18, 506:14, 506:19
strobing [3] - 341:25, 342:1
strong [1] - 484:7
strongly [1] - 335:12
struck [2] - 412:14, 497:25
structure [2] - 284:18, 287:14
structures [8] - 259:10, 263:19, 278:6, 278:18, 279:4, 290:22, 291:10, 296:20
struggling [1] - 432:15
students [2] - 363:6, 363:14
studied [5] - 279:25, 280:11, 317:23, 355:7, 400:8
Studies [2] - 257:10, 257:10
studies [71] - 262:19, 267:14, 276:19, 276:20, 276:25, 277:7, 277:10, 290:20, 291:6, 291:24, 292:21, 297:19, 299:17, 311:18, 314:13, 316:19, 316:20, 316:24, 317:5, 317:11, 317:12, 317:19, 317:20, 318:2, 319:7, 319:20, 326:5, 326:18, 326:22, 327:22, 336:2, 342:20, 359:22, 361:12, 368:7, 369:2, 375:15, 375:18, 376:20, 377:12, 377:14,

377:23, 379:18, 380:2, 380:5, 380:11, 380:19, 381:25, 382:2, 382:4, 382:16, 382:17, 382:21, 383:1, 383:2, 385:2, 385:4, 387:9, 391:13, 394:4, 394:5, 394:6, 452:24, 453:4, 472:7, 488:9, 512:22, 513:16
Study [10] - 258:5, 259:6, 259:7, 326:14, 327:9, 328:9, 332:3, 342:19, 359:22, 368:7
study [94] - 262:22, 267:14, 267:18, 275:22, 276:3, 277:3, 277:23, 280:16, 283:25, 288:21, 289:19, 290:5, 290:6, 290:18, 291:4, 291:11, 292:13, 293:17, 295:3, 305:1, 311:20, 314:3, 314:4, 314:6, 314:18, 314:21, 316:17, 316:22, 317:1, 317:6, 318:1, 319:16, 319:17, 320:3, 320:8, 326:4, 326:6, 326:8, 326:9, 326:10, 327:3, 327:4, 327:9, 331:14, 331:16, 332:7, 336:10, 357:8, 360:8, 361:21, 362:9, 362:14, 362:23, 362:24, 363:1, 363:2, 363:3, 363:18, 364:3, 368:9, 370:23, 370:25, 371:1, 371:4, 381:4, 381:11, 385:7, 385:10, 387:8, 391:14, 391:16, 391:23, 455:13, 459:25, 460:3, 460:8, 468:14, 478:4, 481:5, 487:23, 487:24, 488:3, 495:3, 502:5, 508:23, 508:24, 509:4, 511:9, 511:14, 511:15, 513:20
studying [1] - 279:23
stuff [6] - 447:11, 468:13, 468:15, 516:14, 516:16, 517:5
subject [9] - 279:14, 328:12, 386:3, 411:5, 413:20, 415:9, 416:16, 461:22, 462:8
subjective [4] - 299:25, 327:12, 327:13, 327:17
submittal [1] - 394:11
submitted [8] - 273:11, 302:17, 311:20, 314:7, 322:1, 357:12, 464:25, 495:3
subscribe [1] - 463:23
subsequent [3] - 274:14, 426:17, 495:4
subset [1] - 305:23
substance [1] - 358:4
substantially [2] - 514:15, 514:17
substantiate [1] - 485:13
subtract [1] - 515:14
subtracting [1] - 287:23
subtraction [1] - 310:8
sudden [1] - 481:15
suddenly [1] - 402:25
sued [1] - 419:17
suggest [4] - 323:2, 329:4, 379:19, 381:2
suggested [2] - 403:12, 438:18
suggestion [1] - 498:21
suggestions [7] - 397:4, 404:3, 496:10, 510:12, 515:24, 515:25, 516:1
suggests [1] - 471:17
suit [1] - 420:18
suitable [8] - 391:17, 391:25, 392:2, 401:19, 401:25, 402:12, 402:14
suite [1] - 452:13
suited [1] - 348:8
SULLY [1] - 522:3
sum [1] - 418:14
summarize [4] - 455:8, 457:1, 457:16, 457:22
summary [3] - 290:13, 312:12, 314:9
summertime [1] - 313:6
sun [7] - 289:1, 344:25, 354:13, 354:14, 354:18, 355:21, 366:13
sun's [4] - 339:3, 339:4, 339:9, 344:1
sunny [1] - 268:21
sunshine [2] - 354:1, 354:16
super [1] - 270:18
supervise [1] - 400:7
supervised [2] - 311:14, 375:16
supplement [1] - 430:14
Supplemental [27] - 257:23, 258:22, 259:5, 259:12, 259:12, 259:13, 259:20, 260:3, 260:12, 261:4, 261:15, 264:13, 273:2, 273:9, 274:12, 318:9, 322:13, 334:8, 357:22, 369:25, 370:3, 376:9, 454:21, 457:2, 457:16, 458:20, 495:5
supplemental [1] - 455:9
supply [3] - 473:25, 483:17
support [6] - 302:12, 347:6, 470:11, 473:13, 474:21, 494:24
supported [3] - 316:19, 316:20, 317:4
supporting [1] - 290:20
supports [3] - 337:2, 398:6, 470:7
suppose [1] - 300:1
supposed [2] - 291:2, 509:23
Supreme [1] - 429:24
surface [1] - 387:15
surfaces [1] - 504:10
surprise [4] - 328:20, 397:17, 397:25, 399:1
surprised [7] - 407:22, 467:7, 473:9, 473:16, 474:7, 474:17, 479:21
surrounding [3] - 461:5, 465:24, 471:4
Survey [8] - 257:5, 257:5, 257:7, 257:7, 257:8, 260:21, 377:21, 383:6
survey [3] - 336:13, 372:12, 394:5
surveys [12] - 361:11, 372:11, 375:18, 376:22, 377:15, 377:16, 377:17, 377:19, 377:20, 382:22
sustain [5] - 292:7, 340:14, 340:15, 340:16, 381:22
sustained [1] - 340:11
sustaining [1] - 450:17
Swanson [42] - 251:18, 253:4, 253:10, 253:14, 254:4, 254:7, 254:11, 254:18, 255:11, 255:14, 255:17, 255:21, 256:4, 256:14, 269:1, 277:16, 299:12, 302:21, 323:21, 337:10, 361:25, 378:15, 409:12, 410:12, 414:18, 415:10, 420:16, 423:20, 432:1, 434:2, 434:6, 436:4, 438:24, 442:21, 443:11, 445:13, 450:21, 451:12, 459:2, 490:11, 497:12, 521:11
SWANSON [58] - 273:13, 273:16, 277:17, 277:20, 283:13, 302:23, 313:11, 323:22, 337:11, 337:13, 340:7, 340:17, 355:16, 378:16, 410:13, 413:12, 416:12, 416:16, 418:18, 420:11, 420:20, 421:7, 421:12, 422:9, 422:14, 422:21, 423:2, 423:8, 423:13, 423:21, 423:24, 428:21, 438:25, 439:5, 439:8, 440:9, 440:14, 441:14, 442:22, 442:24, 443:18, 444:1, 444:7, 445:15, 445:18, 446:12, 448:4, 448:7, 450:22, 451:14, 451:24, 459:3, 459:6, 463:1, 490:12, 497:14, 508:13, 521:12
Swanson's [4] - 358:25, 421:3, 422:8, 451:11
SWCA [4] - 259:21, 259:23, 375:9, 375:11
Swedish [1] - 410:25
sweeping [1] - 412:13
swore [1] - 369:16
system [3] - 348:22, 465:12, 512:17

T

T75.2 [1] - 324:22
table [9] - 280:21, 286:6, 286:11, 338:25, 339:2, 339:5, 339:9, 495:10, 503:2
tables [2] - 280:20, 289:23
Tabular [2] - 259:8, 259:10
talks [1] - 264:24
tall [1] - 325:11
tally [1] - 280:6
targeted [1] - 440:5
task [2] - 291:6, 419:8
Tatanka [2] - 334:6, 514:13
Tax [1] - 257:16
teach [2] - 357:23, 516:6
team [2] - 375:14, 408:24
technical [2] - 494:23, 504:11
technique [1] - 515:13
Telecommunication [1] - 257:10
temperatures [2] - 315:11, 315:15

tend [1] - 313:2
tender [2] - 458:23, 497:7
tends [1] - 335:16
term [4] - 317:17, 429:19, 449:17, 449:22
terms [4] - 344:20, 357:18, 358:2, 460:4
test [8] - 334:22, 429:25, 441:21, 514:21, 515:2, 517:21, 520:4, 520:10
tested [2] - 430:5, 510:8
testified [10] - 297:23, 318:5, 332:8, 365:21, 438:5, 453:14, 482:21, 487:21, 490:25
testify [6] - 305:25, 414:22, 414:23, 445:1, 445:3, 478:17
testifying [9] - 284:3, 292:24, 294:10, 294:11, 307:20, 328:25, 395:25, 410:20, 417:17
testimonies [1] - 373:14
testimony [76] - 263:8, 273:8, 273:18, 281:20, 285:9, 302:7, 302:10, 302:12, 308:12, 308:20, 310:22, 311:1, 318:8, 319:1, 321:5, 322:18, 322:20, 322:21, 331:25, 332:21, 333:17, 334:14, 334:17, 336:1, 336:24, 337:15, 340:4, 369:12, 369:20, 374:13, 376:15, 376:17, 381:13, 387:11, 388:5, 388:18, 390:1, 393:20, 395:10, 398:10, 400:12, 406:12, 409:21, 409:25, 410:1, 410:2, 410:7, 410:10, 412:5, 421:9, 430:1, 431:15, 432:21, 442:14, 445:2, 452:2, 453:24, 454:12, 455:9, 455:11, 460:19, 469:1, 479:15, 479:20, 480:7, 484:1, 495:1, 495:15, 495:18, 495:21, 497:17, 509:17, 514:1, 515:22, 519:11, 519:17
Testimony [67] - 257:12, 257:12, 257:13, 257:14, 257:15, 257:16, 257:23, 258:22, 259:5, 259:12, 259:12, 259:13, 259:20, 260:3, 260:6, 260:6, 260:10, 260:10, 260:11, 260:11, 260:12, 261:12, 261:12, 261:13, 261:14, 261:14, 261:15, 264:13, 266:12, 273:3, 273:10, 274:12, 274:14, 302:1, 302:3, 302:14, 318:9, 322:13, 334:8, 334:10, 336:5, 357:22, 364:10, 369:25, 370:3, 376:6, 376:9, 376:11, 383:5, 385:14, 388:5, 393:19, 394:24, 424:25, 454:21, 457:2, 457:17, 458:20, 465:9, 465:18, 495:5, 495:6, 495:13, 496:16, 497:19, 509:22, 511:13
testing [11] - 315:9, 315:12, 477:23, 494:20, 500:18, 501:2, 512:11, 512:12, 513:17, 515:3, 520:3
Texas [1] - 399:2
THE [212] - 251:1, 251:2, 251:4, 251:10, 263:16, 263:21, 264:4, 264:11, 265:3, 265:6, 265:10, 265:17, 266:2, 266:10, 266:19, 267:1, 267:9, 267:12, 267:16, 267:20, 267:25, 268:3, 268:14, 268:24, 269:6, 269:10, 269:18, 270:2, 270:10, 270:13, 271:4, 271:14, 271:22, 272:9, 273:4, 273:8, 273:19, 273:24, 274:11, 274:23, 297:22, 298:1, 298:9, 299:3, 299:8, 299:16, 299:19, 299:25, 300:6, 300:13, 316:14, 316:16, 316:21, 317:21, 318:1, 318:7, 318:17, 318:20, 319:5, 319:14, 319:18, 319:22, 320:5, 320:10, 320:14, 321:6, 325:18, 326:1, 326:7, 326:13, 326:20, 327:3, 327:24, 328:2, 328:16, 329:2, 329:7, 329:9, 329:14, 329:20, 330:16, 330:24, 331:3, 331:18, 332:3, 332:23, 354:20, 369:21, 371:25, 372:4, 372:6, 373:17, 387:22, 396:22, 396:24, 397:5, 397:12, 397:15, 397:19, 397:23, 398:2, 398:6, 398:18, 398:23, 399:9, 399:13, 399:18, 399:23, 400:3, 400:7, 400:24, 401:4, 401:12, 401:15, 402:6, 403:14, 404:7, 404:14, 405:12, 405:25, 406:5, 408:3, 408:21, 409:5, 430:18, 431:10, 432:8, 432:11, 432:13, 433:4, 433:6, 433:9, 433:19, 434:12, 434:16, 435:5, 435:7, 435:13, 435:18, 435:20, 435:23, 436:1, 436:10, 436:14, 436:17, 436:20, 436:23, 437:1, 437:10, 437:15, 437:17, 437:20, 438:11, 438:15, 438:20, 440:18, 442:19, 451:6, 468:12, 468:16, 468:19, 469:2, 469:13, 469:24, 471:15, 472:3, 475:7, 475:24, 476:19, 476:22, 477:5, 477:21, 478:18, 478:21, 479:2, 479:10, 479:14, 479:18, 480:12, 482:6, 482:19, 483:3, 483:22, 483:24, 484:4, 484:6, 485:5, 485:9, 485:11, 485:17, 485:21, 486:18, 487:12, 488:5, 488:25, 493:17, 511:20, 513:23, 514:3, 514:9, 514:15, 514:20, 515:3, 515:18, 516:3, 516:18, 517:8, 517:16, 518:8, 518:16, 521:19
theirs [1] - 476:16
theory [3] - 411:21, 510:20, 512:7
therefore [6] - 304:14, 319:10, 323:14, 340:24, 341:2, 362:17
therein [1] - 415:1
thereunder [1] - 414:11
thesis [1] - 356:15
they've [2] - 320:10, 397:8
thin [1] - 268:22
thinking [4] - 268:6, 289:9, 380:2, 437:9
thinner [1] - 271:18
Third [1] - 261:3
Thomas [1] - 322:8
THOMPSON [1] - 253:17
Thompson [5] - 257:13, 257:13, 259:12, 260:11, 509:17
thorough [2] - 468:17, 469:17
thoughts [3] - 411:2, 411:4, 426:10
threats [2] - 411:7, 411:10
three [23] - 285:18, 293:14, 321:11, 333:13, 333:16, 350:1, 357:10, 359:2, 359:5, 359:12, 365:3, 365:15, 398:13, 403:25, 419:3, 433:24, 437:6, 467:1, 469:10, 506:3, 508:5, 509:5, 515:21
three-quarters [1] - 293:14
threshold [6] - 277:8, 299:7, 303:24, 304:15, 308:5, 341:8
thresholds [4] - 299:4, 322:23, 323:16, 337:3
throughout [6] - 357:9, 373:14, 434:5, 443:14, 496:13, 507:10
throw [1] - 427:21
thumb [1] - 287:19
thunder [1] - 306:24
tie [1] - 370:20
tight [1] - 266:22
Tim [1] - 294:4
timed [1] - 366:15
timing [3] - 475:18, 481:12, 486:13
tin [1] - 429:10
tinnitus [7] - 327:22, 327:25, 328:2, 328:10, 328:22, 328:25, 329:5
tiny [1] - 268:11
tip [2] - 366:9, 366:22
title [9] - 301:3, 321:19, 333:4, 349:1, 375:7, 452:14, 494:15, 500:1
titled [1] - 336:6
to-be-submitted [1] - 302:17
today [20] - 276:25, 277:5, 290:24, 291:8, 333:17, 355:24, 357:13, 365:22, 389:5, 390:1, 393:20, 415:8, 424:22, 430:2, 439:15, 454:11, 495:2,

495:18, 516:13, 519:11
together [10] - 312:12, 314:9, 315:22, 326:3, 346:9, 408:23, 423:15, 470:1, 474:17, 510:10
Tom [3] - 345:24, 507:23, 508:8
tomorrow [1] - 521:23
tonight [1] - 423:17
took [8] - 269:23, 269:25, 276:3, 414:18, 445:6, 464:3, 476:14, 522:9
top [9] - 268:11, 268:22, 283:23, 284:1, 287:19, 295:2, 346:3, 367:8, 504:9
topic [1] - 468:19
topography [1] - 332:11
Toronto [1] - 465:10
total [5] - 265:19, 281:2, 281:6, 418:14, 478:10
totally [1] - 499:6
tough [3] - 479:18, 480:2, 486:14
toward [1] - 416:22
Toward [1] - 258:9
towards [5] - 323:9, 372:19, 379:24, 452:25, 473:11
tower [17] - 456:8, 456:20, 456:22, 457:14, 458:1, 458:10, 470:9, 470:12, 477:11, 477:16, 480:2, 481:3, 481:16, 481:21, 486:12
towers [14] - 455:14, 458:5, 461:11, 467:12, 470:18, 471:5, 472:12, 473:8, 473:20, 481:24, 486:6, 488:6, 488:20, 492:20
toxicology [1] - 356:7
traditional [1] - 377:22
Traditional [1] - 259:22
traffic [5] - 279:13, 312:7, 343:18, 345:1, 345:10
trailing [2] - 510:3, 510:5
train [2] - 388:23, 405:14
trained [3] - 322:9, 405:3, 418:20
training [4] - 361:9, 388:21, 394:9, 395:7
Training [1] - 252:2
trample [1] - 404:23
transaction [14] - 456:11, 457:3, 457:5, 457:10, 457:12, 458:9, 463:18, 464:9, 465:6, 466:6, 471:17, 491:18, 491:19, 493:6
transactions [17] - 455:17, 455:18, 456:4, 457:25, 460:9, 460:14, 460:22, 460:23, 463:20, 464:13, 475:1, 477:15, 483:10, 485:22, 488:5, 488:8, 488:13
Transcript [1] - 251:7
transcript [1] - 252:1
transcription [1] - 522:12
transfer [2] - 466:18, 466:24
transfers [1] - 478:10
transition [1] - 435:15
translation [3] - 352:16, 352:19, 353:11
transparency [2] - 396:4, 396:9
transparent [1] - 396:3
trapezoid [1] - 289:8
travel [2] - 282:23, 426:24
travelers [1] - 384:17
traveling [1] - 366:23
tree [1] - 428:9
trees [12] - 263:19, 268:7, 278:6, 278:19, 344:2, 344:3, 344:17, 344:20, 429:11, 429:14, 518:12
trend [1] - 488:16
trends [1] - 361:18
trespasser [1] - 432:18
trespassing [1] - 432:17
trial [1] - 283:9
tribal [1] - 378:5
tribes [1] - 377:22
tributary [1] - 387:1
tried [3] - 270:20, 480:4, 486:3
tries [1] - 396:3
trip [1] - 423:6
troubling [1] - 328:3
truck [1] - 266:18
true [11] - 298:7, 360:18, 401:5, 417:14, 428:16, 441:11, 454:23, 495:21, 499:21, 522:11
trust [2] - 410:25, 428:13
trusting [1] - 423:4
truth [4] - 410:18, 418:19, 429:25, 441:21
try [8] - 271:17, 359:1, 372:10, 446:13, 447:14, 448:18, 468:16, 478:24
trying [25] - 272:5, 297:13, 305:17, 310:20, 315:21, 338:2, 360:4, 361:4, 386:13, 420:21, 421:8, 427:25, 437:5, 444:4, 445:6, 445:10, 451:8, 466:16, 486:10, 491:1, 491:16, 497:20, 498:1, 509:11, 515:10
Tuesday [1] - 413:18
Turbine [13] - 258:3, 258:4, 258:6, 258:7, 258:10, 259:4, 259:14, 259:16, 259:22, 260:5, 265:1, 265:4, 275:7
turbine [89] - 264:18, 265:18, 265:22, 271:8, 271:12, 271:15, 271:25, 272:2, 274:5, 274:9, 276:9, 278:3, 280:3, 280:12, 280:24, 281:7, 281:18, 283:24, 284:11, 284:19, 284:20, 284:22, 285:6, 285:16, 287:7, 289:9, 289:13, 289:14, 291:13, 293:18, 293:21, 294:3, 297:21, 297:22, 298:13, 298:19, 298:24, 298:25, 299:2, 303:18, 304:10, 304:17, 304:20, 305:6, 324:25, 325:2, 325:4, 325:6, 325:10, 325:11, 327:5, 334:4, 342:8, 343:17, 344:14, 344:24, 354:3, 379:1, 383:11, 384:12, 384:21, 388:25, 427:22, 430:7, 440:22, 441:3, 454:4, 455:3, 455:25, 456:5, 462:1, 463:13, 463:21, 496:21, 497:24, 503:9, 505:6, 505:16, 505:21, 506:16, 509:20, 510:17, 511:4, 516:19
turbine-by-turbine [2] - 281:7, 281:18
turbines [103] - 262:18, 262:21, 262:24, 264:22, 264:23, 270:4, 271:7, 276:1, 276:16, 276:18, 280:1, 280:13, 280:19, 281:12, 281:15, 285:10, 288:17, 288:18, 297:4, 297:5, 303:1, 308:8, 317:14, 318:10, 319:3, 319:10, 323:3, 323:10, 325:8, 327:2, 327:7, 327:11, 332:12, 335:10, 335:13, 335:18, 335:22, 336:11, 338:13, 339:1, 339:2, 339:10, 342:14, 347:22, 359:16, 364:25, 365:7, 366:4, 366:8, 366:10, 366:19, 366:21, 372:2, 372:14, 372:19, 373:5, 374:2, 374:8, 378:7, 379:2, 379:3, 379:20, 380:19, 380:22, 381:2, 383:16, 384:6, 408:19, 426:13, 428:12, 428:14, 429:16, 440:6, 440:20, 455:14, 459:22, 460:13, 460:25, 461:4, 462:15, 464:8, 464:13, 465:23, 474:11, 493:2, 496:24, 497:1, 497:3, 498:1, 498:7, 498:14, 502:12, 507:1, 507:4, 507:6, 508:25, 511:4, 512:4, 512:8, 513:5, 520:7
Turbines [16] - 257:19, 257:21, 258:11, 258:12, 258:14, 258:15, 258:16, 258:17, 258:18, 258:19, 258:22, 259:15, 259:18, 259:19, 260:5, 336:7
turbulence [2] - 434:20, 503:10
turn [10] - 294:25, 295:15, 295:16, 296:10, 390:18, 420:10, 496:4, 519:16, 520:7, 520:12
turning [1] - 462:15
TW-1 [1] - 257:14
TW-S-1 [1] - 260:3
TW-S-2 [1] - 260:4
TW-S-3 [1] - 260:4
TW-S-4 [1] - 260:5
tweaked [1] - 514:21
twenty [1] - 470:23
twenty-sixth [1] - 470:23
twice [4] - 308:23, 309:11, 309:12, 309:13
two [44] - 262:2, 264:22, 264:23, 269:20, 276:17, 277:18, 280:1, 284:15, 284:18, 284:22, 284:24, 288:7, 289:21, 291:6, 291:12, 291:13, 292:20, 297:17, 309:14, 310:18, 341:23, 371:8, 388:25, 398:12, 404:1, 405:3, 407:21, 409:18, 413:18, 439:16, 443:6,

443:10, 462:9, 464:24, 469:10, 477:7, 487:23, 489:22, 490:5, 491:3, 497:4, 504:23, 510:10, 520:11
two-page [1] - 439:16
two-part [1] - 371:8
Tyler [9] - 257:14, 257:14, 260:3, 260:12, 285:3, 404:16, 438:7, 443:1, 443:10
TYLER [3] - 253:3, 255:6, 255:16
type [15] - 281:23, 282:6, 310:19, 326:18, 338:24, 363:12, 402:9, 420:18, 436:18, 455:3, 472:7, 515:1, 515:3
types [3] - 268:14, 370:15, 402:9
typical [4] - 267:2, 481:14, 491:4, 505:3
typically [8] - 303:22, 319:5, 350:5, 361:14, 367:25, 387:14, 503:20, 504:4

U

U.S [15] - 336:12, 336:14, 336:18, 341:12, 348:7, 349:9, 350:5, 350:12, 353:23, 354:9, 355:2, 363:2, 370:24, 390:10, 391:5
UK [1] - 258:20
ultimately [2] - 327:19, 330:3
unable [2] - 413:22, 426:24
unanswered [1] - 445:21
uncertainty [3] - 318:10, 319:2, 510:16
uncomfortable [1] - 487:15
Under [2] - 258:19, 259:19
under [22] - 262:10, 275:16, 275:22, 276:25, 277:10, 279:8, 315:15, 318:23, 370:15, 378:6, 407:12, 409:23, 410:6, 412:4, 414:11, 419:1, 419:10, 427:22, 427:23, 446:9, 505:1, 520:9
underlying [1] - 335:14
understood [3] - 405:21, 518:13
undertake [1] - 443:3
undertaking [1] - 310:11
undertook [1] - 391:14
undue [2] - 358:10, 374:5
unduly [1] - 361:6
unfortunately [1] - 492:15
uninfluenced [1] - 474:23
unique [2] - 316:21, 457:24
unit [1] - 498:15
United [31] - 301:22, 336:4, 336:16, 343:13, 343:21, 347:23, 350:4, 350:8, 350:18, 351:4, 360:22, 363:24, 366:5, 366:19, 371:2, 371:13, 371:16, 373:3, 376:23, 376:25, 377:4, 378:1, 378:3, 380:7, 380:14, 391:2, 393:10, 393:12, 400:21, 402:21, 424:6
units [5] - 498:13, 498:22, 504:15, 520:13
universities [1] - 484:9
University [8] - 322:6, 322:7, 322:8, 322:10, 333:21, 362:14, 376:5, 452:23
unless [5] - 271:4, 340:13, 405:10, 420:13, 519:8
unlike [2] - 355:2, 487:14
unlivable [1] - 365:2
unnamed [1] - 387:1
unnecessary [1] - 287:10
unprotected [1] - 331:7
unrealistic [1] - 287:6
unrealistically [1] - 287:8
unredacted [1] - 422:16
unrelated [1] - 309:25
unsurprising [1] - 328:23
unusual [1] - 446:4
up [80] - 262:9, 264:25, 266:6, 270:13, 273:6, 274:11, 275:2, 280:2, 283:11, 285:4, 290:4, 290:8, 291:5, 291:8, 293:16, 294:24, 295:20, 296:7, 297:24, 300:12, 307:25, 310:10, 313:6, 315:18, 316:8, 319:13, 320:8, 320:12, 327:19, 328:7, 328:20, 331:13, 331:14, 352:10, 353:3, 356:18, 360:8, 361:21, 369:13, 372:9, 383:14, 395:23, 397:23, 399:4, 399:10, 399:22, 400:25, 409:12, 412:5, 415:20, 419:7, 422:7, 423:7, 427:22, 429:23, 431:25, 432:21, 443:2, 443:4, 445:8, 445:22, 462:13, 464:5, 469:10, 471:10, 474:8, 479:19, 479:22, 487:4, 487:15, 489:22, 491:13, 491:23, 492:5, 497:2, 501:6, 513:11, 518:9, 518:13, 519:10
upcoming [1] - 411:15
update [3] - 455:12, 460:7, 478:3
Update [1] - 258:20
updated [2] - 326:21, 376:7
Updates [1] - 257:19
updating [1] - 488:13
uses [4] - 370:8, 370:10, 370:13, 515:13
Utah [1] - 494:11
UTILITIES [2] - 251:1, 251:10
Utilities [3] - 396:4, 396:10, 500:8
utility [1] - 507:19
utilize [1] - 447:23
UTM [1] - 259:11

V

vague [1] - 480:17
vaguely [1] - 508:1
valid [1] - 515:1
valuation [2] - 452:19, 471:11
valuations [1] - 471:20
Value [1] - 257:10
value [12] - 269:11, 353:4, 353:9, 411:7, 411:10, 411:11, 412:10, 460:6, 471:7, 476:24, 489:13, 491:22
values [3] - 352:3, 352:22, 472:1
variable [2] - 266:21, 503:9
variables [2] - 392:23, 392:24
variations [1] - 398:8
varies [1] - 506:16
variety [4] - 280:13, 306:19, 307:25, 318:23
Various [2] - 258:19, 259:19
various [3] - 301:21, 306:23, 503:11
vary [1] - 310:17
vegetate [4] - 385:20, 385:25, 386:4, 386:8
vegetated [1] - 386:6
vegetating [2] - 385:21, 385:23
vegetation [4] - 312:25, 385:19, 386:2, 402:9
verified [1] - 269:10
verify [6] - 290:13, 293:25, 455:19, 491:1, 491:6, 491:8
Vermont [1] - 301:24
versa [1] - 520:14
version [3] - 323:5, 352:9, 364:7
versus [6] - 384:17, 384:22, 384:25, 461:11, 517:17
vibration [1] - 434:20
vibrations [1] - 365:1
vibroacoustic [1] - 324:19
vice [3] - 494:16, 494:17, 520:14
VICE [1] - 251:11
Vicinity [1] - 258:14
vicinity [1] - 365:16
view [8] - 289:8, 329:24, 332:9, 412:13, 414:19, 430:10, 434:19, 470:13
virtue [2] - 419:2, 419:19
visit [2] - 472:20, 489:15
visited [3] - 462:15, 462:17, 489:21
visits [2] - 387:7, 472:22
visual [5] - 293:3, 323:10, 335:12, 337:1, 434:19
Vitae [2] - 257:23, 259:14
Volume [1] - 251:9
volume [1] - 328:11
vote [4] - 405:9, 420:25, 421:5, 450:14
votes [1] - 421:24

W

wait [1] - 487:6
waited [2] - 270:15, 450:24
waive [2] - 413:18, 415:7
waiver [1] - 334:25
waiving [1] - 297:9
wake [1] - 434:20
walk [4] - 275:15, 276:13, 379:17, 515:4
walk-in [1] - 379:17
walker [1] - 512:16
wall [3] - 278:4, 278:11, 288:15
wants [3] - 292:24, 476:10, 484:12
washing [1] - 308:3
waste [2] - 356:22, 357:3
watch [2] - 319:25,

488:15
water [4] - 377:2, 387:13, 387:14, 387:16
Water [1] - 377:2
Watertown [7] - 456:18, 465:13, 466:20, 467:17, 484:9, 484:12, 488:2
wave [1] - 517:2
Waverly [3] - 456:16, 478:9, 479:21
waves [4] - 282:15, 282:21, 306:8, 307:18
ways [5] - 309:2, 309:4, 316:24, 317:4, 462:9
weather [1] - 316:1
weed [1] - 385:19
weed-free [1] - 385:19
weeds [2] - 338:24, 385:18
weight [2] - 334:19, 368:23
weird [1] - 422:15
welcome [9] - 316:15, 319:14, 369:21, 384:3, 396:23, 452:10, 513:23, 518:16, 521:19
welcoming [1] - 444:16
welfare [5] - 322:24, 323:16, 335:4, 335:8, 337:5
west [14] - 278:5, 278:9, 278:11, 278:17, 293:13, 294:2, 339:3, 339:9, 428:9, 440:8, 440:25, 441:3, 441:5, 490:4
Western [1] - 452:23
wet [3] - 400:22, 400:25, 401:21
wetland [6] - 377:19, 378:4, 380:7, 380:17, 391:18, 402:10
wetlands [7] - 378:6, 391:19, 391:24, 401:18, 402:6, 402:8, 402:11
wetness [2] - 401:13, 401:18
wetter [1] - 401:22
wherein [1] - 483:6
white [3] - 296:25, 431:2, 431:5
whole [11] - 263:25, 379:7, 379:14, 379:15, 414:23, 429:6, 471:21, 492:11, 507:10, 513:12
whooping [57] - 377:17, 380:17, 382:14, 388:7, 388:14, 388:23, 390:11, 390:17, 391:6, 391:12, 391:14, 391:16, 391:17, 391:18, 391:19, 391:25, 392:2, 392:4, 392:8, 392:11, 392:15, 392:17, 393:5, 393:14, 393:21, 393:23, 394:5, 394:9, 394:17, 394:23, 395:2, 395:23, 396:11, 397:1, 398:21, 398:23, 399:15, 399:20, 400:8, 400:13, 401:2, 401:17, 401:21, 402:5, 402:12, 402:19, 402:23, 402:25, 404:20, 405:2, 406:12, 406:23, 420:3, 420:4, 420:6, 428:4, 514:7
whoops [1] - 431:3
whooshing [1] - 505:11
WHOQOL [1] - 258:13
WHOQOL-BREF [1] - 258:13
WI [1] - 260:22
wide [4] - 266:15, 270:16, 270:19, 453:9
width [1] - 272:20
Wildlife [15] - 376:24, 376:25, 377:4, 378:1, 378:4, 380:7, 380:14, 389:22, 390:6, 390:10, 391:2, 391:6, 393:11, 393:13, 402:22
wildlife [13] - 358:22, 375:15, 375:17, 379:15, 379:17, 379:21, 380:6, 385:2, 385:8, 393:25, 394:1, 399:3, 403:3
WILHELM [3] - 253:3, 255:6, 255:16
Wilhelm [15] - 257:14, 257:14, 260:3, 260:12, 274:5, 384:6, 407:3, 407:11, 407:14, 443:1, 445:22, 446:9, 446:13, 448:8, 451:16
willing [3] - 408:9, 408:19, 417:9
willingness [1] - 502:12
wind [166] - 262:4, 268:16, 269:16, 269:17, 271:7, 271:8, 271:15, 271:25, 272:13, 279:10, 279:11, 280:1, 284:18, 284:20, 284:22, 285:16, 287:6, 287:9, 291:13, 293:18, 296:21, 301:22, 303:1, 304:10, 304:20, 305:6, 306:11, 306:12, 306:23, 307:19, 307:20, 308:7, 310:3, 312:7, 312:23, 312:24, 317:14, 318:6, 318:10, 319:3, 319:10, 323:1, 323:3, 323:9, 323:12, 323:15, 324:25, 325:2, 325:6, 325:8, 325:10, 325:11, 327:2, 327:5, 327:6, 327:10, 328:25, 332:12, 334:3, 334:23, 335:9, 335:10, 335:18, 335:22, 336:11, 336:14, 336:16, 336:23, 339:1, 342:13, 344:7, 344:13, 347:22, 354:2, 359:16, 364:24, 365:8, 365:11, 366:4, 366:8, 366:12, 371:7, 371:13, 372:2, 372:14, 374:1, 374:8, 375:16, 407:18, 408:11, 411:2, 419:1, 419:22, 425:19, 426:11, 426:19, 434:22, 440:6, 441:3, 453:16, 454:4, 455:14, 455:25, 456:4, 456:7, 456:20, 456:21, 457:14, 458:1, 458:5, 458:10, 459:20, 459:22, 460:10, 460:13, 461:4, 461:16, 461:21, 462:1, 463:13, 463:21, 465:23, 466:10, 467:12, 470:9, 470:12, 471:4, 473:20, 474:10, 477:11, 477:16, 480:1, 481:3, 481:24, 481:25, 482:9, 486:6, 486:12, 488:6, 488:19, 492:6, 492:7, 497:24, 498:24, 499:19, 500:11, 500:25, 501:18, 501:20, 502:2, 503:6, 503:9, 503:10, 503:11, 503:15, 505:6, 505:16, 506:20, 506:25, 507:10, 509:1, 512:22, 520:9
WIND [2] - 251:4, 251:5
Wind [71] - 251:17, 257:19, 258:3, 258:4, 258:6, 258:7, 258:9, 258:11, 258:12, 258:14, 258:15, 258:16, 258:17, 258:18, 258:19, 258:22, 259:14, 259:15, 259:15, 259:17, 259:18, 259:19, 259:22, 260:16, 260:22, 262:4, 277:11, 283:25, 285:7, 301:13, 302:16, 314:2, 314:12, 314:17, 314:21, 321:24, 322:23, 323:15, 325:3, 333:10, 333:11, 333:12, 334:22, 335:20, 336:1, 336:6, 337:4, 337:5, 356:21, 357:7, 359:12, 365:4, 365:5, 375:12, 376:19, 376:24, 379:20, 380:12, 385:18, 386:18, 393:22, 413:5, 413:6, 456:17, 501:8, 502:16, 508:20, 509:7, 510:2, 510:11, 518:23
wind-driven [1] - 268:16
windier [1] - 312:22
window [7] - 263:15, 278:23, 289:19, 338:20, 342:3, 505:20, 506:2
windows [14] - 263:12, 263:13, 263:18, 263:19, 278:4, 278:10, 289:6, 289:8, 289:10, 429:6, 429:15, 430:8, 440:25
winds [2] - 287:12, 312:20
Winds [1] - 487:20
winter [3] - 386:5, 386:6, 504:7
wintertime [2] - 385:24, 386:1
Wisconsin [8] - 365:5, 399:11, 399:12, 508:21, 509:8, 519:2, 519:5, 519:6
wish [15] - 400:17, 404:10, 414:24, 422:9, 422:10, 424:25, 425:8, 427:10, 427:14, 428:20, 439:22, 443:21, 444:2, 488:22, 492:14
wishes [2] - 411:13, 412:18
withstand [1] - 287:12
WITNESS [207] - 263:16, 263:21, 264:4, 264:11, 265:3, 265:6, 265:10, 265:17, 266:2, 266:10, 266:19, 267:1, 267:9, 267:12, 267:16, 267:20, 267:25, 268:3, 268:14, 268:24, 269:6, 269:10,

269:18, 270:2, 270:10, 270:13, 271:4, 271:14, 271:22, 272:9, 273:4, 273:8, 273:19, 273:24, 274:11, 274:23, 297:22, 298:1, 298:9, 299:3, 299:8, 299:16, 299:19, 299:25, 300:6, 300:13, 316:14, 316:16, 316:21, 317:21, 318:1, 318:7, 318:17, 318:20, 319:5, 319:14, 319:18, 319:22, 320:5, 320:10, 320:14, 321:6, 325:18, 326:1, 326:7, 326:13, 326:20, 327:3, 327:24, 328:2, 328:16, 329:2, 329:7, 329:9, 329:14, 329:20, 330:16, 330:24, 331:3, 331:18, 332:3, 332:23, 354:20, 369:21, 371:25, 372:4, 372:6, 373:17, 387:22, 396:22, 396:24, 397:5, 397:12, 397:15, 397:19, 397:23, 398:2, 398:6, 398:18, 398:23, 399:9, 399:13, 399:18, 399:23, 400:3, 400:7, 400:24, 401:4, 401:12, 401:15, 402:6, 403:14, 404:7, 404:14, 405:12, 405:25, 406:5, 408:3, 408:21, 409:5, 430:18, 431:10, 432:8, 432:11, 432:13, 433:4, 433:6, 433:9, 433:19, 434:12, 434:16, 435:5, 435:7, 435:13, 435:18, 435:20, 435:23, 436:1, 436:10, 436:14, 436:17, 436:20, 436:23, 437:1, 437:10, 437:15, 437:17, 437:20, 438:11, 438:15, 438:20, 440:18, 442:19, 451:6, 468:12, 468:16, 468:19, 469:2, 469:13, 469:24, 471:15, 472:3, 475:7, 475:24, 476:19, 476:22, 477:5, 477:21, 478:18, 478:21, 479:2, 479:10, 479:14, 479:18, 480:12, 482:6, 482:19, 483:3, 483:22, 483:24, 484:4, 484:6, 485:5, 485:9, 485:11, 485:17, 485:21, 486:18, 487:12, 488:5, 488:25, 493:17, 511:20, 513:23, 514:3, 514:9, 514:15, 514:20, 515:3, 515:18, 516:3, 516:18, 517:8, 517:16, 518:8, 518:16, 521:19

witness [51] - 262:9, 274:5, 292:25, 295:5, 296:7, 300:21, 300:22, 302:14, 302:19, 313:12, 321:1, 321:7, 321:8, 323:23, 332:24, 374:21, 394:24, 395:2, 404:13, 405:22, 406:6, 409:6, 409:24, 410:15, 410:20, 423:20, 428:22, 439:3, 439:4, 440:14, 441:14, 442:23, 442:24, 442:25, 443:6, 443:10, 443:25, 444:1, 451:12, 451:17, 451:23, 452:5, 458:23, 478:13, 493:18, 493:19, 493:20, 497:8, 503:24, 508:14, 521:20

Witness [2] - 295:25, 390:5

WITNESSES [6] - 253:2, 254:2, 255:2, 255:9, 255:19, 256:2

witnesses [9] - 305:25, 321:11, 346:4, 411:17, 411:19, 412:2, 415:8, 443:20, 443:23

Wittler [3] - 251:24, 522:17, 522:18

WITTLER [1] - 522:5

Women's [1] - 321:22

wonderful [1] - 419:13

wonderland [1] - 379:16

word [4] - 269:2, 345:16, 349:15, 516:12

wording [1] - 360:13

words [5] - 312:15, 349:15, 360:3, 365:3, 410:3

works [3] - 269:22, 338:6, 438:8

world [3] - 342:21, 400:1, 471:22

world's [1] - 327:10

worrying [1] - 351:1

worse [1] - 437:11

worst [3] - 287:12, 353:24, 354:12

wrap [1] - 437:5

wrestled [1] - 416:19

wrist [1] - 327:15

write [3] - 265:16, 356:16, 360:13

writing [3] - 369:11, 369:14, 369:15

writings [1] - 477:17

written [4] - 403:9, 497:17, 499:22, 500:2

wrote [5] - 302:25, 365:22, 432:1, 470:4, 507:22

WTG's [1] - 259:11

X

Xcel [3] - 407:24, 407:25, 408:7

Y

yard [8] - 342:9, 342:17, 474:9, 490:4, 490:18, 491:5, 491:8, 491:14

yards [1] - 435:18

year [29] - 263:11, 266:3, 274:3, 274:7, 289:25, 310:18, 315:11, 329:12, 330:7, 347:16, 349:20, 353:5, 353:19, 354:14, 354:19, 355:1, 359:10, 359:14, 360:1, 360:4, 360:6, 360:24, 382:8, 404:1, 425:25, 436:24, 467:10, 470:23, 482:9

years [27] - 272:5, 301:20, 310:18, 325:7, 330:6, 333:23, 334:2, 334:21, 347:15, 361:10, 363:25, 375:23, 382:18, 397:18, 400:23, 400:25, 403:19, 404:1, 436:24, 459:7, 463:24, 475:3, 487:23, 488:3, 488:23, 508:9

yellow [1] - 440:22

yesterday [16] - 262:12, 262:17, 263:7, 263:9, 272:16, 276:12, 283:3, 283:20, 285:4, 285:11, 407:16, 443:5, 446:20, 478:17, 485:1, 518:3

Young [1] - 376:5

yourself [2] - 398:20, 448:8

Z

zero [6] - 272:19, 282:11, 282:13, 287:1, 298:4, 518:2

Zone [1] - 259:11

zoning [1] - 357:11

THE PUBLIC UTILITIES COMMISSION

OF THE STATE OF SOUTH DAKOTA

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The following transcript of proceedings was held in the above-entitled matter at the Matthew Training Center, Joe Foss Building, 523 East Capitol Avenue, Pierre, South Dakota, on the 6th day of February, 2020, commencing at 8:30 a.m.

I N D E X

APPLICANT'S WITNESSES	PAGE
TYLER WILHELM	
Direct Examination by Mr. Murphy	29
Cross-Examination by Mr. Swanson	32
Cross-Examination by Ms. Christenson	46
Cross-Examination by Mr. Robish	73
Cross-Examination by Ms. Reiss	74
Commissioner Questions	81
Redirect Examination by Mr. Murphy	98
Recross-Examination by Ms. Christenson	104
Recross-Examination by Ms. Reiss	105
DARYL HART	
Direct Examination by Mr. Murphy	111
Cross-Examination by Mr. Swanson	113
Cross-Examination by Ms. Christenson	114
Cross-Examination by Ms. Reiss	126
Commissioner Questions	128
MICHAEL MAROUS	
Direct Examination by Mr. Schumacher	131
Cross-Examination by Mr. Swanson	136
Cross-Examination by Ms. Christenson	140
Cross-Examination by Mr. Robish	146
Cross-Examination by Ms. Edwards	150
Commissioner Questions	152
MARK THOMPSON	
Direct Examination by Mr. Murphy	170
Cross-Examination by Ms. Christenson	173
Cross-Examination by Mr. Robish	194
Cross-Examination by Ms. Reiss	196
Commissioner Questions	201
Redirect Examination by Mr. Murphy	213

I N D E X (Continued)

APPLICANT'S WITNESSES	PAGE
JAY HALEY	
Direct Examination by Mr. Murphy	215
Cross-Examination by Mr. Swanson	220
Cross-Examination by Ms. Christenson	227
Cross-Examination by Ms. Edwards	243
Further Direct Examination by Mr. Murphy	262
Commissioner Questions	263
Redirect Examination by Mr. Murphy	275
Recross-Examination by Mr. Swanson	277
Recross-Examination by Ms. Christenson	283
Recross-Examination by Mr. Robish	292
Recross-Examination by Ms. Edwards	294
RICH LAMPETER	
Direct Examination by Mr. Schumacher	301
Cross-Examination by Mr. Swanson	302
Cross-Examination by Ms. Christenson	313
Cross-Examination by Ms. Edwards	315
Commissioner Questions	316
ROBERT MCCUNNEY	
Direct Examination by Mr. Murphy	321
Cross-Examination by Ms. Christenson	324
Commissioner Questions	326
CHRISTOPHER OLLSON	
Direct Examination by Mr. Murphy	333
Cross-Examination by Mr. Swanson	337
Cross-Examination by Ms. Christenson	355
Cross-Examination by Mr. Robish	367
Cross-Examination by Ms. Edwards	369
Commissioner Questions	371

I N D E X (Continued)

APPLICANT'S WITNESSES	PAGE
SARAH SAPPINGTON	
Direct Examination by Mr. Schumacher	375
Cross-Examination by Ms. Christenson	378
Cross-Examination by Ms. Reiss	388
Commissioner Questions	395
TYLER WILHELM	
Commissioner Questions	407

INTERVENORS' WITNESSES	PAGE
GARRY EHLEBRACHT	
Direct Examination by Mr. Swanson	423
Cross-Examination by Ms. Christenson	429
Cross-Examination by Ms. Edwards	430
Commissioner Questions	431
AMY RALL	
Direct Examination by Mr. Swanson	439
Commissioner Questions	442
TYLER WILHELM	
Direct Examination by Mr. Swanson	446
Commissioner Questions	450

STAFF'S WITNESSES	PAGE
DAVID LAWRENCE	
Direct Examination by Ms. Edwards	452
Cross-Examination by Mr. Swanson	459
Cross-Examination by Ms. Christenson	463
Commissioner Questions	469
Redirect Examination by Ms. Edwards	489
Recross-Examination by Ms. Christenson	490

I N D E X (Continued)

STAFF'S WITNESSES	PAGE
DAVID HESSLER	
Direct Examination by Ms. Edwards	494
Cross-Examination by Mr. Swanson	497
Cross-Examination by Ms. Christenson	508
Cross-Examination by Mr. Robish	511
Commissioner Questions	514
Redirect Examination by Ms. Edwards	518
PAIGE OLSON	
Direct Examination by Ms. Reiss	534
Commissioner Questions	537
HILARY MOREY	
Direct Examination by Ms. Reiss	539
Commissioner Questions	542
Redirect Examination by Ms. Reiss	549
DARREN KEARNEY	
Direct Examination by Ms. Reiss	550
Cross-Examination by Mr. Swanson	560
Cross-Examination by Ms. Christenson	580
Cross-Examination by Mr. Robish	608
Commissioner Questions	616

I N D E X (Continued)

APPLICANT'S EXHIBITS

A1	Crowned Ridge Application
A1-A	Appendix A - Figures 1 through 14
A1-B	Appendix B - Agency Coordination Dates and Correspondence
A1-C	Appendix C - Aquatic Resources Survey Report
A1-D	Appendix D - Bat Acoustic Survey Report
A1-E	Appendix E - Bat Habitat Assessment Report
A1-F	Appendix F - Dakota Skipper-Poweshiek Skipperling Survey Report
A1-G	Appendix G - Raptor Nest Survey Report
A1-H	Appendix H - Avian Use Survey Report
A1-I	Appendix I - Sound Level Modeling Report
A1-J	Appendix J - Shadow Flicker Modeling Report
A1-K	Appendix K - County Conditional Use Permits
A1-L	Appendix L - Property Value Effect Studies
A1-M	Appendix M - Telecommunication Studies
A1-N	Appendix N - Decommissioning Plan
A1-O	Appendix O - Cultural Confidential
A2	Direct Testimony Jay Haley
A3	Direct Testimony Sarah Sappington
A4	Direct Testimony Mark Thompson
A4-1	Exhibit MT-1: Resume of Mark Thompson
A5	Direct Testimony Tyler Wilhelm
A5-1	Exhibit TW-1: Resume of Tyler Wilhelm
A6	Direct Testimony Daryl Hart
A6-1	Exhibit DH-1: Resume of Daryl Hart
A6-2	Exhibit DH-2: Tax Revenues
A7	Direct Testimony and Exhibit Rich Lampeter
A7-1	Exhibit RL-1: Resume of Richard Lampeter
A7-2	Exhibit RL-2: Proposed Postconstruction Sound Protocol
A7-3	Exhibit RL-3: Low Frequency Noise and Infrasound from Wind Turbines
A8	CRW, LLC's Letter regarding Updates to Original Application
A9	CRW, LLC's Letter regarding Dropped and Moved Turbines
A10	CRW Letter, Notice Letter, and Affidavit on Notice of Public Input Hearing
A11	PUC Affidavits of Publication
A12	Supplemental Testimony of Chris Ollson
A12-1	Exhibit CO-S-1: Curriculum Vitae

I N D E X (Continued)

APPLICANT'S EXHIBITS

A12-2	Exhibit CO-S-2: Exposure to Wind Turbine Noise
A12-3	Exhibit CO-S-3: Effects of Wind Turbine Noise on Self-Reported and Objective Measures of Sleep
A12-4	Exhibit CO-S-4: Before-After Field Study of Effects of Wind Turbine Noise on Polysomnographic Sleep Parameters
A12-5	Exhibit CO-S-5: Impact of Wind Turbine Sound on Annoyance, Self-Reported Sleep Disturbance and Psychological Distress
A12-6	Exhibit CO-S-6: The Association Between Self-Reported and Objective Measures of Health and Aggregate Annoyance Scores Toward Wind Turbine Installations
A12-7	Exhibit CO-S-7: Health-Based Audible Noise Guidelines Account for Infrasound and Low-Frequency Noise Produced by Wind Turbines
A12-8	Exhibit CO-S-8: Low-Frequency Noise Incl. Infrasound from Wind Turbines and Other Sources
A12-9	Exhibit CO-S-9: An Assessment of Quality of Life Using the WHOQOL-BREF Among Participants Living in the Vicinity of Wind Turbines
A12-10	Exhibit CO-S-10: Monitoring Annoyance and Stress Effects of Wind Turbines on Nearby Residents
A12-11	Exhibit CO-S-11: Health Effects and Wind Turbines: A Review of the Literature
A12-12	Exhibit CO-S-12: Wind Turbines and Photosensitive Epilepsy
A12-13	Exhibit CO-S-13: Wind Turbines, Flicker, and Photosensitive Epilepsy
A12-14	Exhibit CO-S-14: Potential of Wind Turbines to Elicit Seizures Under Various Meteorological Conditions
A12-15	Exhibit CO-S-15: Update of UK Shadow Flicker Evidence Base
A12-16	Exhibit CO-S-16: Information on How to Identify and Assess Optical Emissions Wind Turbines
A13	Supplemental Testimony Daryl Hart
A13-1	Exhibit DH-S-1: Generator Interconnection Agreement

I N D E X (Continued)

APPLICANT'S EXHIBITS

A13-2	Exhibit DH-S-2: Maps depicting 200 MW array and potential deferral of 100 MWs
A13-3	Exhibit DH-S-3: Explanation of Turbine Status Change
A14	Supplemental Testimony Jay Haley
A14-1	Exhibit JH-S-1: Final Report CRW II Sound Study Codington, Deuel, and Grand Counties
A14-2	Exhibit JH-S-2: Final Report CRW II Shadow Flicker Study Codington, Deuel, and Grant
A14-3	Exhibit JH-S-3: CRW II 200 MW Sound Level Tabular Results Sorted by Receptor ID Realistic Case Sound Result at Land Parcel
A14-4	Exhibit JH-S-4: CRW II 200 MW Shadow Flicker Tabular Results Sorted by Receptor ID Realistic case shadow results at occupied structures Results using GE 2.3-116-90m HH, GE 2.1-116-80 m HH WTG's UTM NAD83 Zone 14 Codington Co.
A15	Supplemental Testimony Mark Thompson
A16	Supplemental Testimony Michael MaRous
A16-1	Exhibit MM-S-1: Market Impact Analysis
A17	Supplemental Testimony Robert McCunney
A17-1	Exhibit RM-S-1: Curriculum Vitae
A17-2	Exhibit RM-S-2: Exposure to Wind Turbine Noise
A17-3	Exhibit RM-S-3: Wind Turbines and Health
A17-4	Exhibit RM-S-4: Health Effects Related to Wind Turbine Sound, Including Low-Frequency Sound and Infrasound
A17-5	Exhibit RM-S-5: Measurement and Level of Infrasound from Wind Farms and Other Sources
A17-6	Exhibit RM-S-6: Low Frequency Noise and Infrasound from Wind Turbines
A17-7	Exhibit RM-S-7: Potential of Wind Turbines to Elicit Seizures Under Various Meteorological Conditions
A18	Supplemental Testimony of Sarah Sappington
A18-1	Exhibit SS-S-1: SD State Historical Society's Letter to SWCA regarding Archaeological and Traditional Cultural Property Inventory, CRW II Wind Turbine Array
A18-2	Exhibit SS-S-2: SD State Historical Society's Letter to SWCA regarding Architectural Resources Assessment

I N D E X (Continued)

APPLICANT'S EXHIBITS

A19	Supplemental Testimony Tyler Wilhelm
A19-1	Exhibit TW-S-1: Deuel Co. Ord. B2004-01-23B
A19-2	Exhibit TW-S-2: Map Land Status
A19-3	Exhibit TW-S-3: Grant Co. Ord. 2016-01C
A19-4	Exhibit TW-S-4: List of Primary and Alternate Turbine Locations and Dropped Turbines
A20	Rebuttal Testimony Christopher Ollson
A21	Rebuttal Testimony Jay Haley
A21-1	Exhibit JH-R-1 Sound modelled with Hessler and CRW proposal
A21-2	Exhibit JH-R-2 Shadow Flicker modelled with Hessler and CRW proposal
A21-3	Exhibit JH-R-3 Intervenor results with Hessler and CRW proposal
A22	Rebuttal Testimony of Michael MaRous
A23	Rebuttal Testimony of Richard Lampeter
A24	Rebuttal Testimony of Sarah Sappington
A25	Rebuttal Testimony of Mark Thompson
A26	Rebuttal Testimony of Tyler Wilhelm
A27	Supplemental Response to Intervenor IR 2-15
A27-1	Attachment 1 Map
A27-2	Attachment 2 Map

INTERVENORS' EXHIBITS

I-1	Affidavit of Garry Ehlebracht
I-2	Wind Farm Lease and Easement Agreement
I-3	Application for Party Status (Corrected)
I-4	Affidavit of Laretta Kranz
I-5	Affidavit of Steven Greber
I-6	Affidavit of Amy Rall

CHRISTENSON'S EXHIBITS

AC-1	A Cooperative Measurement Survey and Analysis of Low Frequency and Infrasound at the Shirley Wind Farm in Brown County, WI
AC-2	McPherson 6 18 May
AC-3	Riina_Bray_IWT_Niagara
AC-4	Applicant's Responses to Christenson's DR

I N D E X (Continued)

CHRISTENSON'S EXHIBITS

AC-5	Applicant's Responses to Staff's Third Set
AC-6	Attachment 1 to Staff DR 3-2
AC-7	Attachment 1 to Staff DR 3-8
AC-8	Applicant's Supplemental Responses to Staff's Second Set of DR
AC-9	Applicant's Responses to Intervenors' Second Set of DR(4)
AC-10	MN-buyout-20186-143575-01
AC-11	Attachment 1 to Intervenor 2-2
AC-12	Attachment 1 to Intervenor 2-10
AC-13	Attachment 1 to Intervenor 2-16
AC-14	Attachment 1 to Intervenor 1-1 Applicant's Responses to Staff's First Set of DR
AC-15	Attachment 1 to Intervenor 1-4 Part 1

STAFF'S EXHIBITS

S1	Prefiled Testimony and Exhibits Darren Kearney
S2	Prefiled Testimony and Exhibits Darren Kearney (Confidential)
S3	Prefiled Testimony and Exhibits of Hilary Morey
S4	Prefiled Testimony and Exhibits of Paige Olson
S5	Prefiled Testimony and Exhibits of David Lawrence
S6	Prefiled Supplemental Testimony of David Lawrence
S7	Proposed Permit Conditions

MS. CREMER: Good morning, everyone. We are on day three. I will call the hearing back to order in Docket EL19-027, In the Matter of the Application by Crowned Ridge Wind II, LLC for a permit of a Wind Energy Facility in Deuel, Grant, and Codington Counties.

When we went into recess last night, we were about to begin the direct case of Staff. At this time I will call upon Staff to call a witness.

MS. REISS: Thank you. Staff calls Paige Olson, please.

(The oath is administered by the court reporter.)

DIRECT EXAMINATION

BY MS. REISS:

Q. Good morning, Ms. Olson. Would you please state your name for the record.

A. Paige Olson.

Q. And how are you employed?

A. I work for the South Dakota State Historical Society as a review and compliance coordinator.

Q. Okay. And can you briefly explain how you got involved in this proceeding?

A. Yes. I received a subpoena from your office.

Q. I'm sure you were delighted to receive that.

A. As always.

Q. And can you just briefly explain what you reviewed

in order to prepare for this proceeding?
A. So in order to prepare for the proceeding, I reviewed my previous -- my prefiled testimony.
Q. And based on that answer, I can assume you filed or prepared testimony for this docket?
A. Yes.
Q. And drawing your attention to what's been marked as S4 for identification purposes on the table --
A. Yes.
Q. -- can you identify that document?
A. Yes, I can.
Q. What is it?
A. It is the Direct Testimony of Paige Olson.
Q. Okay. And do you have any additions or corrections to make at this time?
A. I do.
Q. Okay. Can you do so?
A. On page 4, there is a question if SHPO is waiting for additional studies to review. My answer was no at the time. But we were actually waiting for one additional report -- or an additional report that not only took into consideration the turbine locations but also the access road, the crane paths, the buried collector lines, the MET towers, the concrete batch plant areas, the laydown areas, and the O&M facilities.

That report has since been received by my office on January 13, and we have reviewed the information.

Q. Okay. Do you have any concerns based on that review?

A. I do not.

Q. Okay. And save for your correction you just indicated, if I asked you the same questions today as in your Direct Testimony, would your answers be the same today?

A. Yes.

Q. And can you provide a brief summary of your testimony for the Commission, please.

A. Yes. So we reviewed a number of cultural resource survey reports. The company worked with a number of tribes to do surveys. They identified, I want to say, a thousand sites perhaps. And they worked hand in hand with the tribes. And they have committed to, as far as I know, avoiding those impacts, but if there are impacts, they have committed to working with the tribes to mitigate -- avoid or mitigate those impacts. So I don't really have any concerns.

MS. REISS: All right. Staff has no further questions and would tender this witness for cross-examination.

MS. CREMER: Thank you. And I misspoke earlier.

You're not starting your case. You're clearly in the middle of it.

Crowned Ridge.

MR. SCHUMACHER: Crowned Ridge has no questions for this witness. Thank you.

MS. CREMER: Mr. Swanson.

MR. SWANSON: I have nothing for this witness.

MS. CREMER: Ms. Christenson.

MS. CHRISTENSON: No questions.

MS. CREMER: Mr. Robish.

MR. ROBISH: No questions.

MS. CREMER: Commissioner Nelson.

COMMISSIONER NELSON: This isn't fair to you, but I don't have any questions either.

MS. CREMER: Commissioner Fiegen.

COMMISSIONER FIEGEN: I'm not going to say I have a question but I certainly have -- so the number of tribes the Applicant worked with, there are 1,000 sites that they had to work around? Is that my understanding?

THE WITNESS: That is correct. So they identified a handful of -- I don't have the approximate numbers -- excuse me. They identified a number of archaeological sites. And then working with the tribes, they were able to identify a large amount -- I would say around 1,000 in the project total -- traditional cultural

properties.

Oftentimes these areas have not been opened for the tribes to survey for various reasons. So this is the first time the tribal representatives are being able to go out and be on the ground and identify these types of resources. And they did this in coordination with the archeologist from SWCA.

COMMISSIONER FIEGEN: That's very impressive. Thank you.

MS. CREMER: Chairman Hanson.

CHAIRMAN HANSON: Good morning, Paige.

THE WITNESS: Good morning.

CHAIRMAN HANSON: I understand that the Applicant has been completely cooperative with your office and with the tribal historic officers as well and have agreed to all of the recommendations from you?

THE WITNESS: Yes.

CHAIRMAN HANSON: Thank you.

MS. CREMER: Staff, do you have any redirect?

MS. REISS: I don't know if there was a question really but no redirect.

MS. CREMER: Okay. Thank you, Ms. Olson. And you may step down.

THE WITNESS: Thank you.

(The witness is excused.)

MS. REISS: Staff calls Hilary Morey to the stand.

(The oath is administered by the court reporter.)

DIRECT EXAMINATION

BY MS. REISS:

Q. Good morning. And please let me know if I have butchered your name.

A. No. That's correct.

Q. Okay. Would you please state your name for the record?

A. Hilary Morey.

Q. And did you submit testimony in this docket?

A. Yes, I did.

Q. And did you submit that with another name?

A. I did. I submitted that under my maiden name, and I have recently changed it.

Q. What was the maiden name?

A. The maiden name was Hilary Meyer.

Q. Thank you. How are you employed?

A. I'm employed by South Dakota Game, Fish & Parks.

Q. And what's your job title?

A. My job title is senior environmental review biologist.

Q. Okay. And can you just briefly explain how you got involved in this proceeding?

A. Yes. Our department coordinates with a number of wind energy development companies. So we've been in coordination with NextEra since about 2007. So we have been reviewing different documents that they have submitted to us, wildlife survey reports, and also providing data to them as well.
Q. Okay. And drawing your attention to a document I set before you marked as S3 for identification purposes, do you have that in front of you?
A. Yes.
Q. Do you recognize that document?
A. I do. It's my Direct Testimony.
Q. And do you have any additions or corrections to make at this time?
A. No, I do not.
Q. And if I asked you the same questions today as in your prefiled Direct Testimony, would your answers be the same?
A. Yes.
Q. And can you just provide a brief summary of your testimony?
A. Sure. So our role with Game, Fish & Parks is to provide recommendations to the developer to try and avoid, minimize, and mitigate any impacts of wind energy development to wildlife and wildlife habitats. Many of

those recommendations are stated in the testimony. One in particular that we've discussed in the previous docket is impacts to prairie grouse so I addressed that in my testimony.

In the previous Crowned Ridge Wind I docket, we recommended a permit condition for monitoring prairie grouse leks. We are not recommending that in this docket because we've been partnering with NextEra as well as Western Ecosystems Technology to put together a very robust grouse study based on GPS locations near turbines. So we thought that the willingness of the Applicant to put forth that amount of effort, we didn't see the need for that permit condition because we would actually be essentially doing that throughout that study.

The other recommendations that we generally provide to all developers is to avoid placing turbines in native grassland habitat, primarily the undisturbed prairies. And then we also provide a number of other recommendations related to avoidance of, for example, eagle nests, raptor nests, et cetera.

Q. Okay. Thank you.

MS. REISS: Staff has no further questions and tenders this witness for cross-examination.

MS. CREMER: Thank you.

Crowned Ridge.

MR. SCHUMACHER: Crowned Ridge has no questions for this witness. Thank you.

MS. CREMER: Mr. Swanson.

MR. SWANSON: Nothing for this witness.

MS. CREMER: Ms. Christenson.

MS. CHRISTENSON: No questions.

MS. CREMER: Mr. Robish.

MR. ROBISH: No questions.

MS. CREMER: Commissioner Fiegen.

COMMISSIONER FIEGEN: Good morning.

THE WITNESS: Good morning.

COMMISSIONER FIEGEN: Two questions. One of them is about the walk-in areas. And you talk a little bit about it in your testimony on page 17. I just want to be assured so I want you to publicly talk more about those walk-in areas and how you've worked with the Applicant.

THE WITNESS: Yes. So the walk-in areas are private lands that are leased for hunting rights by Game, Fish & Parks. So we don't own those lands but private landowners can enroll those lands with our department to allow hunting access to them.

So we were, through working with actually a different company, we've come to realize that there could be some conflicts, particularly during the hunting season

for safety issues. So in the northwest part of the state in another wind facility development, we've actually closed some of those walk-in areas just to provide for some safety for the workers that are working on construction activities there.

So we had asked the Applicants to just notify us 60 days in advance so that we could post that on our Game, Fish & Parks app that shows hunters where they can access those properties. So then if we have 60 days' notice, then we can close them down so they wouldn't show up on our app, or we could provide additional signage as well.

COMMISSIONER FIEGEN: So you said or additional signage. Will you put the additional signage out there?

THE WITNESS: Yes, we can do that. Uh-huh.

COMMISSIONER FIEGEN: Okay. Because sometimes -- the younger hunters, of course, use the app. The older hunters might just use a map.

THE WITNESS: Yes. I believe it's in my testimony, but if we're notified prior to May 1, we can actually include that into our paper hunting atlas, but just because of printing guidelines we need to know by early May.

COMMISSIONER FIEGEN: You're right. I did see that too. The other question I have is about the prairie

grouse lek. I agree that maybe we shouldn't have two studies, but would it be helpful if you used the whole footprint of Crowned Ridge I and II in the study that you're doing?

THE WITNESS: Yes. And we actually are planning on incorporating both footprints for that project.

COMMISSIONER FIEGEN: Great. That's very helpful. Thank you.

MS. CREMER: Chairman Hanson.

CHAIRMAN HANSON: Good morning.

THE WITNESS: Good morning.

CHAIRMAN HANSON: I appreciate your testimony. And it appears that the Applicant has been very cooperative with Game, Fish & Parks. Would you say that's true?

THE WITNESS: Yes.

CHAIRMAN HANSON: And have they accepted all of the requests and suggestions from Game, Fish & Parks?

THE WITNESS: Yes.

CHAIRMAN HANSON: You mentioned to us, pertaining to the leks, the fact that you have an agreement but you apparently don't feel you need to memorialize that in writing; is that correct?

THE WITNESS: Correct.

CHAIRMAN HANSON: Will that agreement and

cooperation survive if the Applicant is no longer going to be the owner of the property, if they sell it to a future party? Does Game, Fish & Parks have the -- excuse me for asking a question on top of a question but give it a little bit more granular look.

Does the Game, Fish & Parks have an authority to pursue cooperation with a future party if there's not a memorialization of that?

THE WITNESS: I don't know for sure.

CHAIRMAN HANSON: Okay. Would you let us know --

THE WITNESS: Uh-huh.

CHAIRMAN HANSON: -- subsequent to this meeting? Appreciate it.

THE WITNESS: So could you repeat that just so I can make a note to myself?

CHAIRMAN HANSON: I'm just concerned with the -- I like to look at everything on a long-term basis.

THE WITNESS: Uh-huh.

CHAIRMAN HANSON: And so I'm concerned with the Game, Fish & Parks' authority to continue to hold the feet to the fire of a future owner to cooperate with the Game, Fish & Parks in relationship to the leks on a basis that -- you have great cooperation now apparently, but we don't know what, five years from now or two years, if

there's a future owner to the property.

THE WITNESS: Okay.

CHAIRMAN HANSON: You asked me to explain.

THE WITNESS: No. I understand.

CHAIRMAN HANSON: I gave you a much longer explanation. Sorry about that.

THE WITNESS: Uh-huh.

CHAIRMAN HANSON: Your answers talk about -- on page 8 specifically, your answer to question on page 12 state that "some species will not use grassland or wetland habitat within a certain distance of wind turbines." And on page 16 you speak of the cumulative impacts.

There are a lot of wind towers in that area presently. A lot is a relative term, I suspect. But this one is going to have -- if it's approved, would have a greater concentration of turbines.

With all of those turbines presently there and the potential for these, are you concerned about the cumulative impact, knowing that there's -- there is, in fact, according to your testimony, that some species will not use the grassland areas close to wind towers?

THE WITNESS: Yes. We are concerned with cumulative impacts. There has been, as you mentioned, a lot of development in this area. And some of the

research out of North and South Dakota, there's seven out of nine breeding grassland bird species will avoid turbines up to 300 meters, so about a quarter mile -- not quite a quarter mile. About two-tenths of a mile.

So we are concerned about that. However, we've been having internal discussions about how do we quantify that. It's a really difficult question to answer right now with the data that we have.

CHAIRMAN HANSON: Am I to assume that you're going to have some data available eventually then and some thoughts on this?

THE WITNESS: Well, what we've done -- excuse me.

What we have done is started a literature review to find quantifiable methods to look at cumulative impacts. This hasn't really been done, to my knowledge, in the wind energy industry as of yet. So we're having some discussions with some of our biologists on how do we quantify this in a meaningful way.

So right now we don't have data, but we're looking into what we would need to collect.

CHAIRMAN HANSON: I recognize that departments turn over occasionally. Is there a commitment for a long-term analysis of this then?

THE WITNESS: Not to my knowledge. This is a

project that I've been undertaking.

CHAIRMAN HANSON: Well, tell the Department head that you want to have long-term -- never mind -- employment.

THE WITNESS: I hope to have long-term employment.

CHAIRMAN HANSON: This is a study that should take at least 20 or 30 years.

Okay. I feel a little bit disarmed not knowing, but I understand that, you know, there's challenges to having that without having all of the turbines.

I appreciate it, when you folks come up with something, if you'd let us know.

Thank you. No further questions.

COMMISSIONER NELSON: Thanks for being here today. Yesterday there was a question posed to one of the Applicant's witnesses about river otters. And, ironically, last night on KELO news, there was a big story about river otters and their resurgence in South Dakota and the fact that they may no longer need to be on a threatened list.

Can you just speak to that a little bit?

THE WITNESS: Sure.

So I'm not the river otter expert for our department, but we periodically go through and review our

state threatened and endangered species list. I guess I don't remember off the top of my head when the last review of that was.

They have been making a resurgence and they've been expanding their population. And a lot of that's due to increases in water quality. That's a big one in our state.

COMMISSIONER NELSON: Thank you.

MS. CREMER: Any redirect, Staff?

MS. REISS: Yes. Just one.

REDIRECT EXAMINATION

BY MS. REISS:

Q. In your conversation with Commissioner Fiegen, you discussed the walk-in areas in the state. Did I hear correctly, did you say the northwest portion of the state?

A. Yes. That was an example of how we've been working with a wind developer in that part of the state. We have walk-ins all across the state.

Q. Northwest? Which project in the northwest?

A. Sorry. The Willow Creek or Wind Quarry, I believe it's called.

MS. REISS: Okay. Thank you. No further questions.

MS. CREMER: So do you have any -- based on the

redirect, do you have any recross, Crowned Ridge?

MR. SCHUMACHER: We do not. Thank you.

MS. CREMER: Mr. Swanson.

MR. SWANSON: No.

MS. CREMER: Ms. Christenson.

MS. CHRISTENSON: No questions.

MS. CREMER: Mr. Robish.

MR. ROBISH: No questions.

MS. CREMER: All right. Thank you. You may step down.

(The witness is excused.)

MS. REISS: Staff calls Darren Kearney.

(The oath is administered by the court reporter.)

DIRECT EXAMINATION

BY MS. REISS:

Q. Good morning, Mr. Kearney. Would you please introduce yourself for the Commission.

A. My name is Darren Kearney.

Q. And where do you work?

A. I work for the South Dakota Public Utilities Commission.

Q. And what is your job title?

A. Utility analyst.

Q. And can you briefly explain your job duties as they relate to this proceeding?

A. Over the course of my just about seven years at the Commission, I have reviewed a number of wind energy facility siting permits, as well as transmission line siting permits, natural gas plant permit application, and a hydrocarbon pipeline siting permit.

Q. Okay. And drawing your attention to the table before you, to the document that's been marked for identification purposes as Exhibit S1, do you have that in front of you?

A. I do.

Q. Do you recognize that document?

A. Yes, I do.

Q. Can you explain what that document is?

A. That's my direct -- my Prefiled Direct Testimony submitted on December 6, 2019.

Q. Okay. And do you have any updates or corrections to make to that document at this time?

A. Just a couple updates. There was one Q and A or line of questioning regarding setback distance from Kranzburg to a specific turbine, and in rebuttal testimony, they addressed my concern about that.

They did further investigation into defining the legal description, which apparently there isn't one for the city of Kranzburg. But they did look into the tax records and were able to conclude where the proper

boundary is for that municipal boundary. And the shapefile I was using to measure the distance from Kranzburg came from the Department of Revenue. And since I didn't generate that shapefile, I don't know how accurate it is, so I would rely on the Applicant's rebuttal for that municipal boundary.

And then also there was the line of questioning about the whooping crane condition. And given the Applicant's commitment to the Commission yesterday to agree to that, my testimony would now be updated to reflect that the company did agree to that whooping crane condition that Staff proposed.

Q. Okay. And at the time you prepared your prefiled testimony, was it true and correct to the best of your knowledge?

A. Yes, it was.

Q. And save for the updates you provided today, if I asked you those same questions today, would your answers be the same?

A. Yes, they would be.

Q. Can you please provide a brief summary of your testimony?

A. My Prefiled Direct Testimony consisted of what Staff reviews in these applications, the additional discovery that we send to gather further information based on the

application that was filed that we felt should be provided in order to address ARSD 20:10:22, which is the rules for applications of energy facility permits, as well as South Dakota Codified Law 49-41B, which is the chapter for energy facility siting permits.

I explained the witnesses that Staff hired to assist us in our review. I explained the agency coordination or consultation we went through to understand whether or not any state agencies had any concerns with the project. I identified historic -- a little bit of the permitting history by the Commission, which kind of was a basis for Staff's review of this Application. I identified some concerns that we had, which were addressed and I updated earlier. I identified expected impacts from the project and outstanding -- one outstanding permit condition, which was the whooping crane that we addressed.

So that's kind of my prefiled Direct Testimony in a nutshell.

Q. Thank you. And just finally, I'd like to direct your attention to a document on the table before you marked as S7 for identification purposes. Do you recognize this document?

A. I do.

Q. And can you explain what this document is?

A. This is a jointly proposed permit conditions between

Crowned Ridge Wind II and Staff. We worked with them to develop a number of conditions that Staff would like to see attached to the permit should the Commission find the Applicant met its burden of proof and issue an energy facility siting permit for the project.

Q. Okay. And did you work with anyone else to develop these conditions?

A. We did send an e-mail to the Intervenors in this docket, asking them if they had any recommended conditions. We received a couple of them from Ms. Christenson as well as Intervenor Kristi Mogen. We attempted to incorporate them into the permit conditions where we could jointly agree to them with the Applicant.

Q. Okay.

MS. REISS: I would move for the admission of Exhibit S7.

MS. CREMER: Crowned Ridge?

MR. MURPHY: No objection.

MS. CREMER: Mr. Swanson.

MR. SWANSON: No objection.

MS. CREMER: Ms. Christenson.

MS. CHRISTENSON: No objection.

MS. CREMER: Mr. Robish.

MR. ROBISH: No objections.

MS. CREMER: With that, the exhibit -- did you

say S7?

MS. REISS: Yes.

MS. CREMER: S7 is admitted.

MS. REISS: Staff has no further questions --

Q. Oh. Did you have anything to add regarding the conditions?

A. Yeah. I was going to walk through the material changes that were made to these proposed conditions from past ones, just to call out certain conditions that the Commission may be interested in understanding why the changes were made.

For the changes, I'll start with Condition No. 1. In the past, the Commission has ordered that the applicants file all permits that they receive. We -- through implementing past projects, those filings are numerous pages of building permits for each individual wind tower, and Staff was comfortable with the Applicant filing an affidavit to the Commission prior to commercial operation attesting that they did, in fact, receive all permits as required.

And Condition No. 2, we removed one of the standards, and that would be all applicable industry standards. And there was some concern from the Commission -- or not Commission -- from the Applicant as to that being vague. When we had included it in the

past, we were thinking more along the lines of the National Electric Safety Code as well as NERC Reliability Standards. We felt that those standards would need to be complied with regardless of whether or not it is in the permit condition. Therefore, Staff was comfortable with removing all applicable industry standards from that condition.

And Condition No. 9, in the past permits, the Commission has required or ordered the applicants to provide signage in accordance with the Manual on Uniform Traffic Control Devices, which is a manual published by the Federal Highway Administration. Ms. Christenson provided some concerns from the Crowned Ridge I project construction activities where Staff felt it would be reasonable for the company to file a temporary traffic control plan, which is provided for in the Manual on Uniform Traffic Control Devices.

Staff would like that to be filed and posted on our website so that Intervenors can review what the company's plan is for notifying the public and vehicles in the area of certain construction activities, road closures, and whatnot.

Let's see. For the Condition 26, which is the noise condition, Mr. Hessler provided some suggested edits to Staff. We asked them to incorporate Crowned Ridge I into

the noise test protocol so we can understand the cumulative impact. Should testing be conducted, we wanted the test protocol to capture the projects that were adjacent to each other.

The changes were identified in Mr. Hessler's exhibit. After talking with the company, there were also a few additional changes made to it where Xcel -- or Northern States Power Company is going to be the owner of the project, and they had concerns about being able to directly work with NextEra to shut down turbines from Crowned Ridge I. They didn't feel like they could say, hey, shut down your turbines. We need to test.

So we put into a condition in Subpart B and E(5) that they will work with Commission Staff and Commission Staff will facilitate that coordination of curtailing certain turbines for the noise testing to be completed.

CHAIRMAN HANSON: Excuse me. Where was that on B?

THE WITNESS: That was 26, Condition 26(B). And then 26(E), subpart 5.

CHAIRMAN HANSON: Thank you.

A. Condition 27 was amended to reflect the NextEra proposal for addressing Hessler's testimony as they identified in their Rebuttal Testimony.

Condition 31 was added to account for Ms. Morey's

recommendation to notify the GF&P if work is going to occur in a walk-in area so they could properly notify the public about that impact to that walk-in area.

Condition 33 was revised. This is the decommissioning funding account. Based on the Application and the testimony we've heard, Northern States Power Company is going to be purchasing the project or owning the project, and the Commission has the ability to review decommissioning cost recovery in rate proceedings. So consistent with, I believe it was, Dakota Range I and II, we amended that condition to reflect that an escrow account would not be needed if the project is purchased and owned by Northern States Power Company.

Condition 34 -- I just want to make sure it's consistent here.

Yes. Condition 34 was the Aircraft Detection Lighting System condition that the Commission has ordered in the past. Staff amended the language in that to clarify when Staff's expectation is that the ADLS system would be operating and that it's required to be operating subject to normal maintenance and forced outage.

We understand there are going to be periods of times where there could be an issue with the system that they need a certain amount of time to fix and repair. So that

is memorialized into these proposed conditions.

And another one that was added is Condition 40. And this was added based on a request from Intervenor Kristi Mogen. Essentially, what the condition says is that the Applicant needs to construct the facility in accordance with the permit and applicable laws, and then failure to do so may lead to revocation or suspension of the permit pursuant to South Dakota 49-41B-33, which is the authority the Commission has to revoke a permit.

And we identify that if an individual turbine is constructed or operated in a materially different manner, then that could lead to removal of that turbine if ordered by the Commission. And we incorporated that based on a request from Ms. Mogen, as I stated earlier.

And I think that's it for the material changes from past wind projects. The basis for those conditions came from the Crowned Ridge I wind farm, and we worked off a template from that and incorporated the changes I just walked through. And that concludes.

MS. REISS: All right. No further questions. I tender this witness for cross.

MS. CREMER: Thank you.

Crowned Ridge.

MR. MURPHY: No questions.

MS. CREMER: Mr. Swanson.

CROSS-EXAMINATION

BY MR. SWANSON:

Q. Good morning, Mr. Kearney.

A. Good morning.

Q. You have Exhibit S1 before you, I assume?

A. Yes, I do.

Q. Before we conclude, I would like to ask you a question also about Exhibit JHR-3, which was circulated to the docket on January 22, 2020. Would you per chance have that?

It's also marked Exhibit A28.

A. Give me a second.

Q. And if it's convenient, I can come back to that a little later.

A. I'm going to have to find it so you can either do it now or later, whatever you prefer.

Q. Well, let's try to do it before we conclude. And the point of my inquiry is there are two entries for the Greber residence, on effects to be given to that residence. And I'm trying to figure out what your understanding of that might be.

A. Okay.

Q. It appears it's coming to you now.

A. That's Exhibit A28?

Q. A28. Yes.

A. Okay.
Q. Do you see the entries for the Greber residence?
A. I do.
Q. Which I think is Receptor 221. Am I correct? D221?
A. Yes. You are correct. D221-NP.
Q. And there are two entries for that receptor?
A. Yes.
Q. It shows a minute difference in distance to the nearest turbine?
A. Yep.
Q. And also changes to perceived dBA and shadow flicker. Am I correct?
A. You are correct. Yep.
Q. Do you have any understanding or recollection why that has been submitted as A28?
A. Well, I don't know why the Applicant submitted it as A28, but I could maybe explain why there are two --
Q. Well, let's try that angle. You tell me, if you would.
A. All right. Subject to check, I believe that, through discovery, Staff asked Crowned Ridge Wind II to provide updated modeling to reflect the receptor on the other side of the residence, and that's where the dash 1 came from. And I would like to go to our discovery to verify that.

Q. All right.
A. So please give me a second.
Q. I will.
(Witness examines documents.)
A. It's much easier when I can do a word search. I have to read through every question.
MR. SWANSON: Well, could we let the witness respond to that out of order at a later time before he concludes his testimony and we can go on with other examination? Would that work or --
THE WITNESS: If I recall correctly, if I'm thinking correctly, then I think it was done in response to a Staff Data Request.
MR. SWANSON: All right. All right. Well, let's try to, I guess, confirm that if I may ask the question later so that we can plow ahead, but I'll wait for the Hearing Examiner to say that that's okay.
MS. CREMER: Certainly.
MR. SWANSON: All right. Thank you.
MS. REISS: If I may interject, I think if you would allow, we can help provide that Data Request.
MR. SWANSON: Absolutely.
MS. REISS: It would be 216. Page 109 of 157.
THE WITNESS: I'm there. I just needed the DR number.

MR. SWANSON: Page 109?
MS. REISS: Of DK2, page 109.
THE WITNESS: And that's in Exhibit S1.
A. And, yes, that's the Data Request that came to my mind as to why that dash 1 is likely included in Exhibit A28.
Q. All right. And you're referring to item 216 on page 109?
A. Yeah. It's Staff Data Request 2-16.
Q. Right.
Well, that confuses me a little bit further, because I had understood this was a green something or other receptor which assumed the house wasn't there and it was omnidirectional.
Do you remember that testimony of Mr. Haley?
A. Yeah. I heard that testimony.
Q. So if the receptor is on a different side of the house, that house isn't there, I'm not sure I understand why that would result in a change in noise or shadow flicker levels.
But whatever, Mr. Kearney. Let's you and I get on with Exhibit S1. How about that?
A. That sounds good. And I believe the change resulted in that receptor moving closer to the turbine, which would result in a slightly higher sound and noise and

shadow flicker, and depending upon probably where it falls in the --

Q. But it still assumed the house wasn't there?

A. Right.

Q. All right. Thank you for that, Mr. Kearney.

Let's go to Exhibit S1, if you have that before you.

A. I do.

Q. Page 7, line 26.

A. I am there.

Q. All right. Let me get to it, please.

At that point, your testimony discusses a response you received from South Dakota Department of Health. And I believe that relates to Exhibit DK-3 also. Am I correct?

A. I believe so. Let me look at DK-3 real quick.

Yep. That's correct.

Q. All right. And I've noted here in my notes a quote as follows, and I trust this is accurate: "Agency" -- meaning South Dakota Department of Health -- "has not taken a formal position on wind turbines and human health."

Is that a correct statement or a summary of DK-3 in part?

A. Yes. That's correct.

Q. All right. They haven't taken a formal position,

but to your knowledge, have they taken an informal position, if that's possible?
A. The information that we have is what has been provided in this docket, and I'm not aware of an informal position --
Q. All right.
A. -- taken by the Department of Health.
Q. All right. Has the PUC itself, based on the response of the Department of Health, itself taken a position formally or informally about wind turbines and human health?
A. Commission Staff relies on the experts in the health field to provide that position, and we would rely on this letter from the Department of Health.
Q. But they haven't taken a position?
MS. REISS: Asked and answered.
Q. Is it my -- you're relying on an agency that hasn't taken a position is my understanding of your answer?
A. They identified a couple of studies that they pointed to and said that they generally concluded that there's insufficient evidence to establish a significant risk to human health.
Q. All right. So they're pointing you on to some other studies by other state -- or agencies in other states.
A. Correct.

Q. And so are you telling me that the PUC then is relying on the positions apparently taken by the agencies of other states?
A. When you say the PUC, are you talking about Commission Staff?
Q. Yes. Yes.
A. I can only speak for Commission Staff.
Q. I understand. Sorry.
A. Yes. We rely on the evidence as presented in each of these cases by the Applicant, the Intervenors, and what we have received in consultation with the Department of Health.
Q. All right. And would it be fair to say the Department of Health has told you, go read the stuff from Minnesota and Massachusetts?
A. They referred them to us, yes.
Q. All right. And you've read that material, I assume?
A. At one point in time, yes.
Q. Okay. Some point during the seven years?
A. At some point probably in the past year and a half when we started reviewing wind energy facilities.
Q. All right. Okay.
Line 32 of your testimony -- of that same page, I'm sorry -- says that the Department of Health letter says that whatever the issues are -- or there are common

complaints associated with wind turbines and studies indicate that these issues may be minimized by incorporating "best practices into planning guidelines."

Do you see that in your --

A. I do.

Q. All right. When you say "best planning practices," what are you referring to, if you can tell us?

A. I would expect that best planning guidelines would be associated with noise limits and setback distances.

Q. Have you ever heard of the NARUC best practices report from January 2012?

A. I have heard of it, yes.

Q. Have you ever studied it or looked at it?

A. I have not.

Q. So that's not the document you're relying on for best planning practices, I gather?

A. We rely on our experts that we have help us review these applications for noise.

Q. All right. And who is -- so when you are referring to "best planning practices," I gather you are referring to the PUC's activity in planning a wind farm permit. Am I correct on that?

A. That would be correct. Yeah.

Q. All right. Are there any other sources of best planning practices that you would think authoritative or

of a guiding nature as you conduct your work?
A. For noise, we rely on Mr. Hessler to provide the expert testimony and opinion as to what the proper limit is that. For shadow flicker, we understand that it's a nuisance issue and Staff defers to the counties, as we feel that they're best suited to address that concern based on the feedback that they hear at the local level, and setback distance are set forth in county ordinances as well as state law, and that's what the planning guidelines entail.
Q. Okay. So if I understand what you've just told me then, for noise issues you rely on Mr. Hessler's guidance; correct?
A. Correct.
Q. And for shadow flicker duration, you rely on the county handling that issue. Am I correct?
A. We look to see what the county has done and if it -- and take that into consideration when we review these and usually defer to the county, absent some -- if there's no ordinance or limit on shadow flicker, then Staff would probably -- Staff would recommend an hour per year limit consistent with Commission's past decision.
Q. And there's been one past Commission decision on shadow flicker in a situation where there was no zoning ordinance control. Am I correct?

A. Could you explain what project you have in mind?
Q. Well, the only one I'm aware of is Prevailing Wind Park. Am I correct?
A. They had local ordinances.
Q. In all the counties?
A. Not Charles Mix.
Q. Is there another wind farm permit that had no local control for shadow flicker?
A. I do not recall off the top of my head.
Q. So if I can continue the discussion with you just briefly, what source would be authoritative for you to look to for shadow flicker control if the county didn't have an ordinance governing shadow flicker?
A. Well, the first thing Staff would look to is the Commission's past decisions and what they were comfortable with for limits.
Q. And do you know what the Commission looks to as to what they're comfortable with? What do they look to?
A. They look at the record that's presented in each docket.
Q. All right. Are there regulations that the Commission has adopted setting parameters for shadow flicker endurance?
A. There are no regulations. It's a case-by-case basis. And that's determined on the record that's

developed at the time a docket is before the Commission.
Q. So it would be kind of a contest of the experts that are being called in?
A. That's what contested case hearings are for. Yeah. It would be somebody would need to offer up a certain hour limit, which is typically 30 hours per year, and then the experts come in and testify as to why that's the proper limit.
Q. Do you have any understanding of why it's typically 30 hours per year?
A. We understand the genesis of the 30 hours per year coming from, as you have examined past witnesses, through a determined court case, and it's kind of slowly filtered through the U.S. in a lot of zoning ordinances and state ordinances.
Q. Is my examination of that witness your first understanding that this all came from Germany to begin with?
A. No.
MS. REISS: Objection. This is getting really outside the scope of Mr. Kearney's testimony. He hasn't ever indicated that he's an expert regarding shadow flicker. And this is just really outside the scope. I've tried to let it go as long as I can.
MR. SWANSON: Well, I appreciate that, but

Mr. Kearney is the one who has just authored Exhibit S7, which has a shadow flicker endurance obligation of 30 hours per year. If it's under 30 hours a year, it's all good. And I think it's fair inquiry.

MS. REISS: If I may respond to that?

MS. CREMER: Sure.

MS. REISS: Mr. Kearney explained how these conditions were developed, he's explained that Staff has relied on expert witnesses for these items, and that these conditions came about through discussions with the company. This is really outside the scope.

MS. CREMER: And I would overrule the objection.

Mr. Kearney, when he -- can answer as he can. And once he gets in over his head or believes he has, he can so indicate.

Q. Where were we, Mr. Kearney?

A. I believe the court reporter is going to have to read back that last question.

Q. All right.

MS. CREMER: I believe you answered it and then your counsel objected. So I don't believe there's a question in front of the witness.

Q. What was your answer? Do you recall, Mr. Kearney?

A. I believe I said no.

Q. That doesn't help me much when I don't remember what

the question was.

MR. SWANSON: There's a reason old lawyers retire.

Q. Okay. And I know we've asked -- I asked you about regulations of the Commission setting parameters for shadow flicker, and I think you stated, a question or two before that, that, no, there weren't any regulations. Correct?

A. Correct. I indicated it's done on a case-by-case basis based on the record before the Commission.

Q. Right. And we also have no South Dakota statutes governing shadow flicker as such.

A. None in state law.

Q. Do you know whether the Commission, this Commission, has ever asked the legislature for further guidance about shadow flicker and what is an appropriate duration?

A. I am not aware of that. I would not be knowledgeable to that either.

Q. All right. Going back to Prevailing Winds where we found -- or Prevailing Wind where we found a 15-hour shadow flicker limit that apparently the Applicant had agreed to, did that number of 15 hours come from a recommendation of a -- I wasn't involved in that case so that's the reason I'm asking.

Did that come from the recommendation of an expert

that Staff had hired?

MS. REISS: Objection. I don't recall this fact being in evidence at this time.

MR. SWANSON: Well, I thought he testified to it.

MS. REISS: To the hours per year? I withdraw.

MR. SWANSON: It's on page 11.

MS. REISS: All right. I withdraw.

A. For Prevailing Wind Park, Staff proposed a condition to the Commission of 30 hours per year based on county ordinance. During the Commission's decision process, after the evidentiary hearing was closed, the Commission on its own motion changed it to 15 hours per year.

Staff did not recommend that amount in our testimony, and I did not -- we did not have an expert recommending 15 hours per year. There was not an expert that I'm aware of in that case.

Q. No expert in the case making a recommendation one way or the other?

A. I believe there were some health experts that -- such as the doctors that were presented here by NextEra that were recommending or providing support for a 30-hour-per-year shadow flicker limit.

Staff relied on Bon Homme County ordinance and deferred to that, since we felt nuisance issues are best

addressed by the county, and that was in our proposed conditions to the Commission, which the Commission changed after considering the record.
Q. Okay. And that was a multicounty park, was it not, wind park?
A. Hutchinson, Bon Homme, and Charles Mix.
Q. I gather from your testimony that we've just gone through, that NARUC best practices guide is not a document that you've at all considered in your particular work as Staff?
A. No. We rely on our experts and county ordinances and state law. We would refer to it if we have any questions, but throughout the course of these past wind energy projects we've worked on, I have not referred to it. I might have skimmed through it briefly, but --
Q. Do you have a copy of it, perhaps?
A. I do not. I would have to search it on the web if I wanted to refer to it.
Q. All right. Yesterday I had had some discussion with Mr. Hessler about his work that had been done on noise and wind farm issues in October of 2011.
Do you, in your work as Staff on wind farm applications, do you delve into the work of Mr. Hessler, or do you depend just on Mr. Hessler to come forth as to what his recommendations are?

A. Could you explain what you mean by "delve into"?
Q. Well, do you go to his source document first to read or study and then coordinate that with his recommendations? Or you just leave it up to Mr. Hessler to make his recommendations?
A. We mainly rely on Mr. Hessler to make his recommendations. If we want to understand why those recommendations are being made, then we'll go to the document or search for the information.
Q. All right. Have you ever looked at his document, his study from October of 2011? It's called Noise Report, filed with the Minnesota Public Service Commission?
A. No. Not that specific one. He has provided us with a paper he and, I believe, his father had drafted to support his ideal design goal of 40 and the regulatory permit limit of 45 dBA.
Q. All right. Do you understand why there's a -- why he has distinguished between the ideal design goal of 40 dBA and a regulatory limit of 45 dBA?
A. That would be a question for Mr. Hessler.
Q. All right. I was wondering whether you had an understanding of it?
A. My understanding would be what he has provided in his testimony. I could read it.

Q. All right. In DK-2, which is part of your S1, you had made inquiry of my clients, the Intervenors from Goodwin, and in I-5 response -- this is at page 6 of 157, part of S1. Did you find that?
A. Yep. Sorry. Yes.
Q. All right. Our response had made reference to a Dr. W. Ben Johnson from Des Moines, Iowa, who is an electrophysiologist or a cardiologist.
Did you make any effort to contact Dr. Johnson regarding possible medical testimony?
A. We did not. We relied on the Department of Health.
Q. That's the same Department of Health that said they didn't have a position or a formal position to take?
A. Correct.
Q. Did you discuss Dr. Ben Johnson's possible views with anyone at the Department of Health?
A. No, we did not.
Q. All right. I think I have just a couple questions left, Mr. Kearney.
If you could go to -- oh, boy. It's Exhibit DK-2, and it's page 21 of 157, but for some reason I'm finding it. And it's question I-8. And it has to do where you are inquiring of Crowned Ridge whether they offer a "good neighbor contract," and you had asked for a sample and they then made a response.

And you were here for that testimony, I believe, with their witnesses?
A. Yes. I heard that testimony.
Q. All right. All right.
Let me ask you this question. Would you ever ask an applicant operating a wind farm in accordance with the response that's given here to I-8 about mitigating an identified impact with a nonparticipant if the impacts are within the permit limits, which in this case is proposed in your S7 to be 30 hours annually for shadow flicker and 45 dBA?
A. If I could rephrase the question to make sure I understand it correctly, you're asking if we've ever asked an applicant or required an applicant to mitigate impacts below the regulatory limit?
Q. Yes.
A. We have not. And I have not seen any permit conditions that require that.
Q. All right. I'm asking whether you have ever entertained that and whether you've ever done it, and I guess your answer is no.
A. Correct.
Q. All right. And the regulatory limit, as you refer to it, in this case, assuming your S7 permit conditions come into fruition, will be, as to shadow flicker, 30

hours per year and 45 dBA. Am I correct?
A. For nonparticipants, 45 dBA. 50 dBA for participants. And 30 hours per year for shadow flicker.
Q. Right. Now, do you understand that the intervenors I represent take the position that, as to shadow flicker, they have a property right involved?
A. That's a legal question.
Q. I'm asking if you understood that, though. I'm not saying you're a lawyer. I'm asking if you understood it.
A. I understand the argument you're advancing.
Q. I'm sorry?
A. I understand the argument that -- the position you're advancing on behalf of the Intervenors, yes.
Q. All right. I gather you don't agree with the argument but you understand the argument?
A. I'm not in the position to agree or disagree with it. It's a legal argument.
Q. All right. Okay. So since that would have some bearing possibly on the validity of your proposed permit conditions, have you sought counsel on any of those points?
A. We have two Staff attorneys that help provide guidance to us.
Q. Oh, I can see them. They're sitting right next to you. But my question is, have you asked the question?

A. Have I asked the question to them?
Q. Yes. Or any other lawyer?
A. About property rights?
Q. Yes. As I have identified them.
A. No. I mean, they offer their position in legal briefs.
Q. All right. So you have not made any changes to your proposed permit conditions which would be based in recognition of our property rights claim being at all valid?
A. Our proposed conditions are based on the Applicant's burden of proof and the authority the legislature has given the Commission. We review the laws as the legislature enacted them. We review the rules that were developed and approved by the Commission in the rulemaking process. And we develop conditions off of that guidance that we feel are properly suited for wind energy facility permitting.

MR. SWANSON: All right. That will do it. Thank you.

MS. CREMER: Thank you.

(Discussion off the record.)

MS. CREMER: So 5 after 10:00.

(A short recess is taken.)

MS. CREMER: I will call the hearing back into

session. And, Ms. Christenson, it is your opportunity.

MS. CHRISTENSON: Thank you.

CROSS-EXAMINATION

BY MS. CHRISTENSON:

Q. Good morning, Mr. Kearney.

A. Excuse me. I was taking a drink of water. Good morning.

Q. I do have some questions for you, mostly regarding your testimony, your written Direct Testimony --

A. Okay.

Q. -- but some others as well.

In the past couple of days, we did hear some testimony that sufficient funds may not be available to build the entire Crowned Ridge Wind II project. In light of -- the Intervenors requested a balance sheet and profit and loss statement for the last three years from the Applicant and they said they didn't have one.

Do you recall that in our Data Request, and Mr. Hart's testimony that we had?

A. I do recall seeing your Data Request requesting that profit and loss statement, I believe.

Q. Okay. And then during Mr. Hart's testimony, we talked about the check that Crowned Ridge II had written in an application fee showing that they do have a checking account, so obviously there is a profit and loss

statement and balance sheet that could be produced somewhere?

MR. MURPHY: Objection.

MS. CREMER: What would be the objection?

MR. MURPHY: Argumentative. It's inferring that there is an obvious balance sheet. It's inferring facts that are not in evidence as well.

It was a statement of fact, and the lawyers need to ask questions instead of testifying. I can keep going.

MS. CREMER: No. That's all right. I'm just trying to recall the exchange with Mr. Hart.

Hang on one second.

Mr. Kearney, do you know anything about -- would it be speculation on your part?

THE WITNESS: Yeah. I'm not privy to how the funding or accounts are set up for Crowned Ridge Wind II.

MS. CHRISTENSON: I'm happy to rephrase.

MS. CREMER: Yes. And, again, if you don't know, it's speculation.

Q. Are you -- I don't have your resume like -- well, I do have it handy, but I will just ask you. Are you aware if there is a company, if they have funds, a checkbook and pay bills from a checking account, would a balance sheet and profit and loss statement be a reasonable

assumption to be a financial document for a company?
A. I don't want to assume anything for Crowned Ridge Wind II.
Q. No. Not for Crowned Ridge. Any company.
A. It depends on the business, but I expect there could be a profit and loss statement, balance sheet, income statement, cash flow statement, and all of that.
Q. Okay. Thank you.

So in light of their testimony that they may have limited funding, would Staff consider it prudent that Crowned Ridge Wind II update their Data Request -- well, I have two questions in there, I guess.

Crowned Ridge Wind II, according to the rules of the docket or according to what they agreed to in data requests, said that they would continue to update data requests as new information becomes available.

Is that your correct understanding? Or am I understanding correct?

MS. REISS: Objection. I think this is trying to call for some sort of legal conclusion as to whether we're in compliance with the rules. It just seems -- and it's outside of his testimony.

MS. CREMER: Did you have a response -- not you, Mr. Kearney -- Ms. Christenson, to her objection?

MS. CHRISTENSON: I do. I believe Staff came up

with the rules for the docket for data requests and submissions, the time frames, et cetera. And then when we did data requests as Intervenors and as Staff, we put in our data request asking for updates, and we've gotten updates on other questions, just not this one because this one's recent. Because it just came --

MS. CREMER: I'm going to have you reask the question because it is so confusing.

MS. CHRISTENSON: I know. I got confused in the middle there as well.

MS. CREMER: Yes, you did. So why don't you ask him again.

MS. CHRISTENSON: I'm just going to move on from that actually.

Q. Dr. Ollson referred to licensed, or perhaps it was another word that he used, landfills that would possibly take turbine blade waste. Is there any South Dakota law or rule that you're aware of when you review these applications that govern the disposal of waste on private property or landfills?

A. Well, I suspect that landfills are permitted by certain state laws, but that's not our bailiwick or area of expertise so I wouldn't be able to testify to what those license requirements, rules and laws entail for waste disposal at specific facilities or private lands.

Q. Okay. When you review the Application and documents -- and you've looked at the decommissioning so you do have thoughts 20, 25 years, you try to envision how that's going to play out at the end of life -- have you considered the waste product of these facilities and where it would go?
A. Well, it's identified in their decommissioning plan, that it would go to a licensed landfill or a landfill that can properly receive those waste depending upon the characteristics of the waste.
Q. But in protecting the state of South Dakota, have you thought about how much waste that is with these wind farms and where it would possibly go? Have you approached the Applicant about possibly identifying areas where it would go?
A. From a decommissioning perspective, Staff's concerned about them removing the facilities as they commit to in the decommissioning plan, having the funding available to remove those facilities, and as well as making sure that the wastes are properly disposed of.
In the decommissioning plan and through testimony, we heard that they're planning to dispose of it in a licensed landfill. Now you're talking about capacity of landfills available to receive the waste. We don't have any knowledge or expertise in that.

We also heard testimony that there could be advances in the industry where they look at using beneficial reuse of the turbine blades or the fiberglass from the turbine blades. So at this point in time, we want to make sure that you're going to decommission the facility, and when you do decommission the facility, you're going to dispose of those wastes properly.

We don't get into the details of where those wastes are going to go, what specific landfill they're going to be placed in. That will be decided 25 years from now when the blades are ready for removal.

Q. As well as the cement and rebar and -- that would all be disposed of in a landfill? That would be the same?

A. Up to a depth of four feet, they would remove the turbine foundations and haul out the construction debris to a landfill, I believe.

Q. Thank you.

In light of recent issues with at least one other wind facility in South Dakota having some problems, how is the PUC Staff prepared to monitor and enforce the conditions of the permit if this Commission does rule in favor of granting a permit?

And by that, I mean, would there be some milestone inspections? Is there a person that's going to be

designated to inspect locations, things of that nature?
A. Through permit conditions, there is the public liaison officer that's identified there to address concerns and complaints and be Staff's boots on the ground, so to speak. So if there are concerns raised by a member of the community, they help resolve that and identify what the issue is.

Depending upon what the issue is, it may warrant one of us, the analysts, that work on the projects to go out to the project site and determine what exactly is going on.

But from our experience, a lot of the issues are resolved through the public liaison officer.

Q. Thank you.

And we don't know who that public liaison officer is going to be yet at this project?

A. Correct. That would need to be, if the Commission issues the permit and attaches that proposed condition to the permit, the Applicant would need to identify that, submit that individual to the Commission for approval prior to construction.

Q. Okay. So I'm thinking about Crowned Ridge I right now. That public liaison officer lives in Sioux Falls. So boots on the ground, by boots on the ground, I'm thinking more of milestone inspections of like when I

build my house, an electrician has to come out and inspect. When I do the framing, it has to be inspected.

Are any steps intended to be put into place where -- a checklist. Building permits: Yep, they're all there. And I realize they're going to add the permits. But is anybody going to go out to the facility itself and look at the hole in the ground and see if it's eight feet, see if it's -- I don't know what it could be. See if it's the turbine model that they say? See if it's the transformer that they say, that they've submitted?

That's what I'm looking for, someone to verify as we go along.

A. We do require them to provide a preconstruction filing, identify the most current plans, layouts, and then we also require them to provide a postconstruction filing to verify that setback distances have been met and so forth in the past.

Commission Staff expects the developers to construct the facility as permitted and proposed. We do not go out to the site and verify the foundations are constructed correctly because that's an engineering design that's needed. It's something that we wouldn't have the expertise to do.

And based on our experience with other projects that have been constructed, for example, Prevailing Wind Park,

Crocker, Willow Creek, we haven't had the issues come up where we needed to go out to the site and inspect it.

Q. You don't have the expertise to go inspect, but you do have the ability to hire experts to go and inspect. Would that be a fair statement?

A. I think that could be an option if the Commission decides that it's needed.

Q. Okay. Thank you.

You discussed earlier -- I had offered a condition to you regarding noise, and it was to limit construction related noise -- if I can read that, or if I can tell what my condition proposal was -- to limit construction related noise to the hours of 7:00 a.m. to 7:00 p.m.

My understanding is the condition was not agreed to because there were no noise complaints in Crowned Ridge I. Is that a fair statement?

A. Yeah. We did receive your recommended permit condition of limiting noise from 7:00 a.m. to 7:00 p.m. Monday through Saturday and I believe it was until 7:00 a.m. to 1:00 p.m. on Sundays.

Staff drafted some language and proposed it to the Applicant to limit noise from 7:00 a.m. to 7:00 p.m. Well, basically, the condition was drafted where if you receive -- if the company or the public liaison officer receives a complaint after 7:00 p.m., then the Applicant

should shut down that construction activity associated with that complaint until 7:00 a.m. the next morning.

Now I forgot the rest of your question because I was explaining the condition. Could you restate the question?

Q. Actually, I think that's fine. You reiterated my --

A. I remember the question now if you want me to answer it.

Q. Okay, thanks, because I don't.

A. And through discussions with Crowned Ridge I and our public liaison officer, Crowned Ridge, the only noise complaint that the Commission is aware of related to construction activities -- that Commission Staff is aware of, I should say -- related to construction activities was due to a helicopter working on the transmission line, which is permitted under a different permit.

It's my understanding that there were no noise complaints associated with the construction of the wind farm itself portion of the project and, therefore, we didn't feel that there were enough complaints received from the Crowned Ridge I project construction to warrant the need for a condition in this project.

Q. Thank you.

You would agree that different people live in this project than do Crowned Ridge I, though; correct?

A. Yeah.
Q. Okay. Can we refer to the map, A27-2. And can you find the batch plant on that map? It's on Highway 212. If you look kind of --
A. It's right here (indicating).
Q. Right. Can you see the property right adjacent, right next to that batch plant?
A. Yep.
Q. Do you notice that cement batch plant is right next to a nonparticipant family?
A. I noticed that and we looked into the reason why. And when we started looking at historical aerial photos, there was already a concrete batch plant there from work on, I think, what highway is that? 212.

So we'd have to ask the company why they chose that spot, but I suspect, if it was already used as a batch plant for other related construction activities, then they probably determined it's a reasonable spot to use since the land has already been impacted due to work that was done in a past project.
Q. That may be reasonable for the company, but it may not be reasonable for the nonparticipants. They didn't have a choice when the batch plant was used for --

MS. REISS: Objection. This is testifying.

MR. MURPHY: I was waiting to do it in concert.

MS. CREMER: Well, then I'll sustain twice.
Q. Okay. Rephrasing. If there is a road construction batch plant, would that be -- my brother and I have a joke, I can't think of the English word -- would that be something that the PUC would have had control over, the batch plant location for a road project?
A. First, we did not hear from that nonparticipating landowner as to concerns associated with the batch plant proposed as is in this project.
Second, one of the permit conditions that Staff jointly proposed with the company is that they can adjust the location of the concrete batch plant, just as long as it's on leased lands for the project and meets all the cultural and environmental criteria that the company commits to.
Q. So if there were a daycare in that nonparticipator's home perhaps and there's a batch plant there -- batch plants are typically a hub of activity during construction.
Many trucks, much noise. Would that be fair?
MS. REISS: Objection.
MS. CREMER: And many grounds, but which one would you like?
MS. REISS: Let's try speculation, testifying.
MS. CREMER: I would sustain.

MS. REISS: Thank you.

MS. CHRISTENSON: Oh, come on. You have to have more than that. Just kidding.

MS. REISS: I was waiting for Mr. Murphy to interject.

MS. CHRISTENSON: Okay. I think my point is made, though.

Q. In your Direct Testimony, S1, under the heading of Application Completeness on page 9, line 6, you say you consider the Application complete. Is that correct?

A. That's correct.

Q. Does the split in Crowned Ridge II into two versions, a 300 megawatt and a 200 megawatt, which would bring two different build times and two different efforts by the company, does that split create any concern for Staff?

A. No. It doesn't have any specific concerns for us. And I addressed that in my testimony. And I believe that in 49-41B-11(5), one of the statutes identifies that the applicant can identify future additions and modifications it would like to include in the permit -- be permitted at that time.

So I think that the statutes and rules contemplate that future additions could be considered. And Staff has viewed this as, okay, well, 200 megs get built now and

then the future addition is 100 megs. And we think that the statutes and rules have contemplated for a scenario such as that.

Q. Thank you.

Following on page 9, Section 6, the heading of Noise, you talk about Prevailing Winds being able to achieve a project design goal of 40 dBA so the Commission ordered a permit condition of 40 dBA for nonparticipators in that project.

Your expert, retained by the PUC, Mr. Hessler, testified yesterday that with the turbine configuration modification that he had suggested, the low noise trailing edge blades Crowned Ridge II has committed to using, and the EPCO software -- I guess they're calling it software -- that Crowned Ridge Wind II has committed to use, Crowned Ridge Wind II should be able to meet the design goal of 40 dBA, according to Mr. Hessler.

Will Staff recommend that same condition as applied to Prevailing Winds to be applied to the Crowned Ridge Wind II projects considering your expert believes it to be achievable like in the docket for Prevailing Winds?

A. I think that you might have mischaracterized Mr. Hessler's testimony a little bit. And perhaps the record will show that I'm wrong, but I believe what he was indicating is that, based on the sound modeling that

was produced without the EPCO included and the 2 dBA uncertainty factor, that a lot of the nonparticipants he was concerned about would be near that 40 dBA.

I don't think he advocated for a 40 dBA permit limit in this case and was still standing by his 45 dBA regulatory limit. And that is what Staff's position is still at this time.

Q. On page 10 of your testimony, down to line 15, you have a question: Does Crowned Ridge Wind II's noise modeling account for accumulative impacts from adjacent wind projects?

In your answer you say yes. And you go on to say that Crowned Ridge I and Deuel Harvest are adjacent to Crowned Ridge Wind II. And then you say, and I quote, "The model did not account for Dakota Range turbines, which the report identified that project as being too far away to have significant cumulative impact on sound levels."

Last night I pulled up the wind project maps that have been permitted in the area of Crowned Ridge Wind II, and I have three here. And it's a bit difficult to tell because each company has a different scale to their map. And Crowned Ridge Wind II doesn't actually have a map that I could find that had streets and avenues on like other projects.

But I could use Waverly as a frame of reference on these maps to kind of jumble them together.

As near as I can tell, Crowned Ridge Wind II project area, the top of that project is 163rd Street, and the bottom of Dakota Range is 162nd Street. That seems very adjacent to me.

I am getting to my question. I thought that foundation was important to lay here so that you could picture what I'm talking about, because you've sited all of -- or you've permitted these facilities.

In the past, has the PUC ever asked an applicant for a map depicting the projects in the area all combined for a visual reference of the layout of the projects relative to each other?

A. We have not asked the applicants for that because they wouldn't have the information of the turbine locations from projects that they're not developing.

Q. Has the PUC Staff ever assembled such a document?

A. I have GIS shapefiles for the projects that I use and look at the projects in relation to each other.

Q. Could that document be produced for the public and the Commission so that they can see all of these projects relative to each other and turbine placements relative to each other?

A. Yeah. I don't see why we can't generate a map.

Although, the turbine locations are based on shapefiles we receive during the permitting process, and some of them might change slightly throughout the course of final micrositing the projects. But that's something that Staff could produce.

Q. That would be very helpful. Thank you.

In your review of this Application and its associated reports and documents, did the PUC Staff ever discuss with Crowned Ridge Wind II, asking for the addition of the Dakota Range Crowned Ridge II -- or the addition Dakota Range to the Crowned Ridge Wind II sound studies?

A. Our expert, Mr. Hessler, did not identify that as being a concern, and he never suggested to Staff to work with Crowned Ridge to include Dakota Range I and II into the modeling. I have looked at the turbine locations between Crowned Ridge Wind II and Dakota Range I and II, and the turbines are about 7.4 miles apart.

Q. On page 11 of your testimony you discuss shadow flicker. This might be repetitive of Mr. A.J.'s -- or Mr. Swanson's.

In your first question and answer segment, you list seven projects the PUC Commission applied 30 hours of shadow flicker limit to permit conditions. You mentioned Prevailing Wind Park permitted with a condition of half

that amount, 15 hours annually. And in your previous testimony today, you said that was no recommendation by Staff but it was applied by the Commissioners.

A. Correct.

Q. Along those lines, your expert, Mr. Hessler, thought that those turbines were pretty crammed into a small project area. And I see a lot of white space in there.

Is there room for 15 hours of flicker limits in that project area the way that project is configured?

A. I do not have the answer to that. That would need to be remodeled by Mr. Haley.

Q. Thank you.

Did Staff ever inquire to Crowned Ridge Wind II as to what each receptor's daily flicker would be?

A. We did not send a discovery request seeking that daily contribution from each turbine on a specific receptor.

Q. No discovery, but you've never discussed that with them via e-mail or personally?

A. No. When we go through these dockets, we send formal discovery to get the information so we can put it in the record if we think it's needed.

Q. Okay. Because you do talk about that you discuss conditions and things with the Applicant, so I was just clarifying if there was other discussion.

A. No. That's a good clarification. And once we get to the point where we want to -- once our testimony's been submitted and we've gotten through the discovery part of the proceeding is when we start verbally discussing conditions with the Applicant. And it's easier to facilitate those negotiations face to face and verbally rather than through formal e-mails.

Q. Thank you.

Has the Commission ever limited the amount of daily flicker to anyone, participant or nonparticipant, in any wind project?

A. I believe it was in Prevailing Wind Park there was the 30 minute attached to that as well, as well as the 15 hours per year.

Q. Thank you.

On page 12 of your testimony, you recommend a permit condition that indicates -- let me read this. "Shadow flicker at residences shall not exceed 30 hours per year unless the owner of the residence has signed a waiver."

Reading that, the "shall not exceed" is good wording and I thank you for that. I'm wondering, though, is each home going to have to self monitor by video, or how is that record supposed to be accumulated for that homeowner?

A. I think that would be a question for the modeling

expert because I think we review our applications -- the applications we receive based on the modeling results, which -- or the models are derived based on physics, I think, behind shadow flicker and the angle of the sun in the sky, the duration of the daylight hours and whatnot.

If we were to implement this condition, somebody complains, then Staff would work with -- informally with the Applicant to figure out a way that we could verify that this 30 hours per year is not being exceeded. At this time I don't know what that would look like and what type of monitoring would be used for it. But based on curtailment of turbines in other projects, I think it's more relative to the time of year, which sets the angle of the sun in the sky and the daylight length. And then that's how the wind companies decide which turbines to curtail in order to meet that permit limit.

Q. So you're not putting that burden onto a homeowner, that they have to keep track of every minute of every day they see a flicker?

A. Well, if they so choose to, I suppose they could. But if they think that, you know, it's three months in, I've gotten flicker every day, what's going on here, and they call us and say, hey, we've gotten flicker every day, we're going to work with the applicant informally to figure out what's going on, if we find that there could

be an issue, we would bring it to the Commission.
Q. That's a good answer. Thank you.
Because my question was recourse. What kind of relief do you envision during a complaint process? Would it be immediate? Like would you say --
For example, I call. Just imagine that I would call. And I say I've had 30 hours of flicker already and it's still going. You know, that's not going -- they're not going to turn off a turbine that day. It's not a light switch; right?
So I just want to see how you envision that happening.
A. At that point, it's just an allegation, and we need some factual evidence to support the conclusion that you think you're experiencing 30 hours per year of shadow flicker. We might be able to work with the company to provide some mitigating -- mitigating measures that wouldn't curtail the turbine that they might be willing to do.
But until we have factual evidence saying, yes, they're out of compliance, there isn't any basis for Staff to bring a complaint to the Commission to curtail the turbine.
Q. So that brings me to my possible suggestion. Would the PUC entertain a condition -- and I'm going to call it

a yellow light, a caution light. By that, I mean when flicker nears a certain threshold in a certain time of year, typically in the winter, the homeowner could notify the PUC that they're nearing 30 hours of flicker saturation so the PUC could contact Crowned Ridge II and put them on notice to monitor the issue as a preemptive strike against that annoyance for that family?

A. That was kind of -- I think I -- basically -- I'm trying to rephrase your question so I understand it.

Q. Good. Because I'm not good at questions. I do understand that.

A. So you're asking if the Commission Staff -- not the Commission because I can't speak for the Commission, but would the Commission Staff be supportive of a condition that a residence hits what they think is a certain amount of hours and then require the company to come monitor?

I mean, that's kind of the formal complaint process -- or informal complaint process we would go through before it becomes a formal complaint.

Q. I'm just talking about trying to alleviate the problem before it happens.

Because as a person who lives in a project, I make a complaint. That complaint goes on for how many days before there's a complaint resolution? Like when would that family who gets 30 hours of flicker expect a

resolution?
A. And I understand your concern is that, you know, you think you have a complaint, we need to shut it down now or resolve it immediately.
But on the other side of the -- on the other side is there's a due process that the Applicant deserves to be afforded as well. It's just an allegation until we get facts that support that, yes, Ms. Christenson, you're right, you're experiencing more than 30 hours per year. Now we can propose a solution for that and bring it to the Commission for approval.
So, I mean, once an allegation is received, from a due process perspective, the Applicant -- to the Applicant, we need to get and collect factual information, which may take some time, whether it's through measurement or others.
Q. So my yellow light suggestion of possibly getting to the point where -- the yellow light suggestion would help that family while you're collecting that information and coming to a resolution so that they possibly wouldn't have to endure over 30 hours of flicker.
Is that a better explanation of what I'm trying to get to?
A. Well, I understand kind of what you're getting at. And there's still some concerns from my perspective that

you've said you've had 20 hours of flicker already. Well, how do we know that? I mean, it's still an allegation at that point in time because it's one word, your word, against the company saying that -- however they respond, I guess.

Q. Okay. So then that goes back to like the first part of my question is, does a family have to self monitor and document every minute of every flicker every day if you're saying it's an allegation? I just don't understand where we're going.

MS. REISS: Objection. This is just getting argumentative. I believe the witness has answered her questions, and I think at this point we just need to move forward.

MS. CREMER: Sustained.

MS. CHRISTENSON: I lost my place.

Q. On page 10 of your testimony, talking about the noise modeling and accounting for accumulative impacts from adjacent wind projects, you talk about the model did not account for Dakota Range turbines and --

MS. CHRISTENSON: I really did lose my place. Wrong page. Strike that? Can I say that?

Q. Oh, my other question is regarding the complaint process and the liaison officer. When I talked to Mr. Riniker, who is the liaison officer for Crowned

Ridge I, his understanding is that the current liaison officer is a position that's most likely only for 90 days after commercial operations date.

Is that a correct statement?

A. Partially correct. He's correct in the fact that the permit condition sets forth that, at the end of 90 days, that liaison officer can be terminated.

I think the company, since they completed construction in the fall, Staff has asked the company to keep him on through final restoration and reclamation of the disturbed land so he can be there to address any concerns that participating landowners might have. And it's my understanding that the company has committed to that. They'll keep him on longer than 90 days.

Now, in this project, in order to capture that, like the request of Staff, we amended the public liaison condition to identify that the public liaison officer will be retained through final restoration, reclamation, unless terminated earlier by the Commission or extended by the Commission.

Q. Very good. Thank you.

Page 14, line 17, you say, "The proposed turbine layout appears to have accounted for the Codington County setback requirements."

Oh, sorry. That was the Kranzburg thing. And I was

going to ask if that had been resolved. So that has been.

In the following two questions of your testimony, you say the proposed turbine layout appears to have accounted for the Deuel County and the same for the Grant County setback requirements. And you say, "For each county, I cannot verify which individual turbine location complies. That will need to be done by Crowned Ridge II during final micrositing of each turbine."

I'm a Reagan girl, trust but verify. How will the PUC verify each turbine is in compliance with its setbacks?

I realize that's in the postconstruction; right? But how do you verify that before they actually -- they'll build the foundation, but wouldn't it be prudent to have some information on that before the actual tower goes up in case there is a problem with siting? Or what do you -- what do you see happening if there is a turbine not placed correctly?

A. If a turbine isn't sited correctly, pursuant to the condition we added to try to capture the spirit of Ms. Mogen's request, if it's materially different or it's not constructed in accordance with applicable laws, then the Commission, for an individual turbine, could decide that the turbine needs to be removed.

It's probably not cheap for a company to remove turbines so I expect that they probably want to make sure that the setback distances are properly met prior to putting a big hole in the ground and erecting the facility.

That's what Staff's relying on to make sure that the turbines are constructed as the hammer that the Commission could have if they so choose to remove a turbine.

To my testimony, Commission Staff doesn't have civil engineers, civil engineers, and we don't go out and survey each individual location. Like I said, that's Crowned Ridge, II's role to do that during micrositing.

If a nonparticipating landowner complains that, hey, I think this turbine's closer than it should be to my property line, then we look at going out and making sure that it's measured properly and try to resolve the situation if there is one.

But, like I said, it's a risk to the company if they decide not to site it in accordance with the setback distances. And the Commission could always require that turbine be removed.

Q. Okay. Thank you.

I want to comment on Chairman Hanson's discussion about the whooping cranes yesterday. It was very

compelling. It really got to me. And I want to thank him and the Staff and Crowned Ridge Wind II for the additional protection they're offering.

Has Staff ever considered turbine curtailment during the migration period like other states have done in the spring and the fall?

A. Are we talking specific to whooping cranes?

Q. Not necessarily.

A. So just waterfowl migration periods?

Q. Yeah.

A. That has not been offered by the GF&P or U.S. Fish & Wildlife Service as to a need for these facilities that are being proposed and constructed. So no, Staff has not recommended to the Commission to curtail turbines during migratory periods.

Q. And that same would hold true to just specifically whooping crane?

A. Whooping crane, the condition is that if a whooper is spotted within two miles of the project, then you curtail the turbines to protect that individual bird.

Q. Yesterday we did learn that there have been instances of loss of property value in and near the current project. With this information, would the PUC Staff consider a condition to protect our South Dakota family assets by working out a property value guarantee

with Crowned Ridge Wind II?
A. No. We would not consider that.
If I could add, it's been asked in past cases for property value guarantees, and our witness, Mr. Lawrence, has not recommended them because there's a lot of issues with implementation of a property value guarantee.
In addition, Mr. Lawrence's testimony, his conclusions are still that he has not observed an impact in the marketplace due to wind farms -- or an impact in property values due to wind turbines sited near a property.
He did call out the Richter sale as being one off case where he noticed that there could be an impact due to the turbine -- proposed turbine nearby.
Q. And I believe he sited one in Deuel Harvest; right?
A. I don't recall that in his --
Q. The $250,000 value loss one that he submitted as an exhibit? You don't recall that?
A. I don't recall that one.
MS. CHRISTENSON: That's all my questions.
THE WITNESS: Thank you.
MS. CREMER: Thank you.
Mr. Robish.
MR. ROBISH: Yes.

CROSS-EXAMINATION

BY MR. ROBISH:

Q. Al Robish. Good morning.

A. Good morning.

Q. I'm going to talk about the cost of decommissioning. Has there been any bids for the cost of decommissioning to establish the baseline guideline for the escrow account?

A. All the decommissioning estimates that we have received -- cost estimates that we have received through the course of hearing these wind energy facility permits are engineering estimates.

And what they do is they know how much it costs to put a wind turbine up so they can use those costs and then estimate salvage values in the out years to come up with a cost to decommission the project, an estimated cost to decommission the project. So they're all engineering estimates and not bid related.

Q. You don't know what the total amount would be then, the cost of taking one down?

A. Well, for this project, I believe the Application identified it was 10 to 15 million to decommission the entire project. And in my testimony, I think I calculated that out to a per turbine basis.

Q. Okay. Why did they come up with only $5,000 per

turbine a year for -- in the escrow? Why did they come up with that amount of money?

A. Oh, you're putting math on the spot here, but I think that initially when we were doing these wind energy projects, decommissioning cost estimates were anywhere from 60,000 to 150,000 per turbine. And so on a per turbine basis, if you want to accumulate the cost associated with that depreciation -- or not -- with that decommissioning over time, you would factor in the cost to decommission a turbine, divide it by 30 years, the life of the project, and that would come up to $5,000 or so.

So it depended on the cost that was -- decommissioning cost estimate that was provided in the docket where this escrow account was first ordered.

Q. Do you see a need for that to be increased as inflation?

A. The escrow account agreement, which the project isn't purchased by NSP, allows the Commission to review the financials, and they're required to submit an account statement annually. And then the Commission can request that the company add additional funding or reduce the amount of funding on a per turbine basis after year 10, I believe it is.

Q. Yeah. That's what I was going to say.

A. And then they can adjust it depending upon decommissioning cost study estimates at that time, so that once they do hit the end of life, the Commission has the ability to ensure that the adequate funding is there.
Q. Well, I was hoping it wouldn't fall back onto the landowner to take care of that.
A. And that is a concern that the Commission has expressed in the past.
Q. Yeah.
A. And based on the decommissioning condition, it's important to the Commission as well. And I believe, in the past dockets and for this docket, they do everything they can to make sure that doesn't happen.
Q. That would be devastating so --

Let's see. Okay. In your Direct Testimony you filed, on page 18, you gave your proposed condition for ice throw. On lines 13 and 14, it says, "Applicant will pay for any documented damage caused by ice thrown from a turbine."

How would that be documented?

A. That is a good question. And documented would be an individual -- I don't know if it's just a mere photo or an individual calling the Commission or what the company would consider to be adequate documentation, but that's a -- that's a good question.

Q. Yeah. I'll continue with that, but you kind of answered that. But ice shatters into small pieces when it hits something. If it hits your car or your -- a school bus or anything, you can show the picture of the dent. How do you prove it was ice that hit it?
A. Well, if the ice shreds are still around the car --
Q. Yeah.
A. -- you could probably take a picture of it. I'm guessing that if you were to call staff regarding a concern that, hey, we had damage due to icing, we would look to see, okay, when did this occur? You would let us know.

We would look at the weather data in the area. Was icing occurring in the area? And if it was, then there's a likely -- your story likely checks out, and then we'd probably seek to get additional information from you.
Q. It should be happening on more than one turbine. I'm just worried about the ones close to the road.
A. From a road-related one, I don't know if the highway patrolman or somebody would document it as well if there is an issue with damage. But I suppose somebody could keep driving if it strikes their vehicle too.
Q. Okay. Some of the turbines proposed will be sited 600 feet or less from a highway or roadway. Will there be a requirement for a placard or warning sign to be

placed at such sites by that specific turbine to warn the public of a danger of ice throws? It's been done before.
A. Yeah. And there's not a specific proposed permit condition in this one.
The way Staff has always approached ice throw is that there's two ways you can prevent ice throw. One is through setback distances; right?
Q. Yep. Uh-huh.
A. So you'd increase the setback distance in case the turbine's icing and then ice is thrown off the turbine blade. Or, two, you can control the turbine not to operate during icing conditions.
And as reflected in this condition and the testimony of the Applicant, the Applicant has committed to controlling the turbines when ice is detected.
Q. Shut that one down?
A. Right. Through rotor imbalance or onsite meteorological data.
Q. Yeah. There might not be so much rotor imbalance if all three blades were throwing at the same time too.
A. Yeah. I don't know the technical information beyond how ice accumulates across the rotor blades and whether or not the accumulation is evenly distributed across each blade. But yeah.
Q. In your review of the Applicant's submissions and

applications concerning this project, what did you find in regards to insurance coverage?
A. Insurance coverage?
Q. For liability.
Well, okay, I'll go with my next one. Is there an insurance carrier listed to take care of liability for, say, ice throw?
A. Well, I would expect that NextEra or Crowned Ridge II has liability insurance. And once NSP purchases the project, they would also carry liability insurance.
Q. Do they list that insurance with the PUC?
A. We do not review that specific information.
Q. Okay. I was just wondering if they were self-insured or if they had a carrier?
A. That, I do not know.
Q. Okay. Who should be contacted to file such a liability claim? Would the sheriff be the first contact if it happened on the road?
A. To document it, I would say yes. But that's up to the individual's choice how they want to.
Q. Then would the company be the next one to contact or would the PUC be the next one to contact?
A. I would offer up that it's whatever that individual so chooses. I mean, the project site manager is going to be living in the area so you might get to know that

individual and you can just say, hey, we've got this issue. What can you do for me? And then that site manager can work with you to resolve it without getting the PUC involved.

But if you guys start coming to a point of disagreement, then we'd definitely want to know about it so we could facilitate a resolution.

Q. I'm trying to get the quickest path.

A. I would say the quickest path is site manager from the -- from NSP since they will be operating the turbine.

Q. Good answer for me.

If there's a serious injury or death, would the company contact be the same?

A. I can't answer for company contact.

MS. REISS: Objection. We're just -- we're going down the same line of asking the same question over that the witness has already answered.

MS. CREMER: It is speculative on his part, and I would sustain.

MR. ROBISH: I meant the insurance company. Would that be -- the company I was talking about. Would that insurance company be the one to contact?

MS. CREMER: Mr. Kearney, do you have any knowledge of how incident reports are filed in these matters?

THE WITNESS: I do not.
MS. CREMER: So any answers he gives would be speculation.
THE WITNESS: Okay.
MR. ROBISH: Thank you. You helped me.
MS. CREMER: Is that it?
MR. ROBISH: Yeah. No more.
MS. CREMER: That would take us to Commission questions. And, Chairman Hanson, I show you as next.
CHAIRMAN HANSON: Good morning, Mr. Kearney.
THE WITNESS: Good morning.
CHAIRMAN HANSON: Yes, we're still morning.
THE WITNESS: Still morning.
CHAIRMAN HANSON: I'm going to trespass a little bit here with Mr. Robish's questions. Obviously -- well, I shouldn't -- without testifying.
If there's a death from an ice throw, someone's not going to call the insurance company. They're going to call the sheriff, aren't they.
THE WITNESS: The sheriff and I suspect a lawyer.
CHAIRMAN HANSON: And if their car's damaged, they're going to just go through the regular process of contacting their insurance company saying, hey, I've got some damage. Isn't that the best thing for them to do

and just let the insurance company handle everything?

THE WITNESS: Well, I mean, from a damage to property perspective, I don't know if they would contact their insurer. But I don't know how that would work out. Because if it was me, I would want to contact the site manager and say, hey, what did you guys do here?

CHAIRMAN HANSON: I'm sorry, I got down that line. I mean, I just couldn't -- well, never mind.

Going through all of your testimony -- and I really, really appreciate the testimony that you provide to us, and the answers that you've given, at least up to this point, have been A plus. I've really enjoyed listening to you.

Has the Applicant agreed to all of Staff's recommendations that you've set forth here? Rather than me going through each one, have they agreed to all of them?

THE WITNESS: Yes, they have, after yesterday and the whooping crane condition that they agreed to.

CHAIRMAN HANSON: So we're 100 percent at this point?

THE WITNESS: From Staff's perspective, all the conditions we were advocating for have been agreed to by the company.

CHAIRMAN HANSON: And all of those are included

in your Exhibit S7?

THE WITNESS: Except the whooping crane condition because we didn't agree to that --

CHAIRMAN HANSON: Right. Okay.

THE WITNESS: -- at the start of the hearing.

CHAIRMAN HANSON: Well, thank you very much for your testimony. I really appreciate it. Remember, you're under oath for the next six years.

COMMISSIONER NELSON: Mr. Kearney, just a few questions. After Ms. Christenson's questions about the shadow flicker and her hypothetical about if it's approaching 30 and how do we know it's not going to go over 30, I just want to make sure that my understanding of the modeling is correct.

The modeling is based on physics. It's based on known angles and known distances. Correct?

THE WITNESS: That's my understanding as well. With the conservative assumptions.

COMMISSIONER NELSON: And so my understanding of that modeling is it would be physically impossible for the shadow flicker number to be higher than what the model shows unless the model was completely inaccurate or the mathematic equations in the model were incorrect?

THE WITNESS: I would agree with that.

COMMISSIONER NELSON: And based on one of the

exhibits, Ms. Christenson's shadow flicker is predicted to be somewhat less than seven hours a year.

Is there any possibility that it could exceed 30 hours per year?

THE WITNESS: I don't believe so, based on the modeling.

COMMISSIONER NELSON: Thank you.

So I just had a couple of questions on the proposed permit conditions. And I appreciate your taking time to go through those this morning.

In permit Condition No. 1 where we're replacing the actual filing of the permits with an affidavit -- and that makes sense to me -- would it be wise that we require that affidavit to itemize the permits that have been garnered as opposed to simply at one sentence, yeah, we've got them all?

THE WITNESS: Yes. That would clarify it and identify the specific permits that they got and Staff said that would be a good revision to make.

COMMISSIONER NELSON: Thank you.

And then looking at 34, and this is the ADLS condition -- and I appreciate the update that you've made to this, but I'm still not sure that it tells me what happens if the FAA has not given approval and the company is ready to go commercial or if the FAA has, in fact,

turned it down and they're ready to go commercial? Does this --

Okay. Did my question make sense?

THE WITNESS: Yeah. And Staff drafted this condition based on the recently passed law. And so we didn't see how that situation would be handled, and we were cautious not to preclude one way or another how that situation would be handled should an FAA deny an application.

From the condition perspective, there's a condition that they could request exemption for, of that Condition 34, for a period of time and get approval for that from the Commission, and that would be Condition 41.

COMMISSIONER NELSON: Thank you. I appreciate that.

I may work on some language here to try to spell out what happens in those alternative possibilities. I don't think any of that would violate what the statute says, but I'll work through that between now and sometime next month.

Thank you.

COMMISSIONER FIEGEN: Thank you, Mr. Kearney. It's always nice to be able to ask you questions finally when we're only about 15 feet away and our doors are always closed so I don't get to come in there.

And if, you know, Eric Paulson can answer or Jon Thurber instead of you, you can certainly -- we can put them under oath; right, Cheri?

THE WITNESS: I already told Eric I was going to defer at least one question to him.

COMMISSIONER FIEGEN: I'm waiting.

THE WITNESS: Just as long as it's an SDSU question.

COMMISSIONER FIEGEN: That's true.

First of all, just your role as Public Utilities Commission Staff. Sometimes I think the public doesn't understand the role between the Commission and the Public Utilities Commission Staff.

So when I look at the -- just correct me if I'm wrong. When I look at the Staff, you interpret the laws and the regulation and make sure the public is protected with the laws that are on the books or the regulations that are on the books. You can't necessarily expand those laws.

THE WITNESS: Yeah. I would agree with that. And we would also look to expert testimony as well in the evidentiary record for developing our positions on the public interest.

COMMISSIONER FIEGEN: Thank you.

The question on the condition that you talked

about this morning when you were giving your opening comments, you talked about Crowned Ridge I and II, and that NextEra wants to put the Public Utilities Commission kind of as a mediator between Xcel -- or, I guess, Northern States Power legally it's called -- and NextEra. That kind of surprised me just because NextEra works with NSP, I'm not going to say on a daily basis but they certainly work with each other.

Why would they put the PUC Staff in the middle of that?

THE WITNESS: That was a request from NSP, that NextEra amend the condition, because NSP, when they reviewed them, wasn't comfortable with trying to tell NextEra, the owner of the project next to them, that they had to curtail their turbines.

And so it came about from NSP. And I think there's some caution as well. Well, you have NextEra willing to work with NSP at this point in time. If NextEra so chooses to sell the project to a competitor of NSP, then that's where there could be some head-butting going on where Commission Staff would need to come in and facilitate.

So I think it was just more as a future precaution rather than a today-based scenario.

COMMISSIONER FIEGEN: Okay. That makes more

sense to me. And the Public Utilities Commission Staff, once again, is willing to facilitate that mediation on the benefit of the public in that area.

THE WITNESS: Right. And if we started getting resistance from the one developer or the one project owner about curtailing turbines, I expect it would come before the Commission for consideration on how to proceed.

COMMISSIONER FIEGEN: Thank you.

So you have been on wind development permitting for a while. So would it be right to say that you have seen a lot of technology -- I better get rid of the word "a lot" -- technology changing so the public -- actually the protections are in there more, such as icing, sound, the megawatts of the turbines so there can be less turbines?

So just even in the two years that you've been involved -- well, you've been involved more than that, but would you say technology has changed to protect the --

THE WITNESS: Yeah. Wind turbine technology has definitely scaled up over time, as well as the amount of -- from a permitting perspective, the amount of conditions that the Commission has attached to these permits in the past has gone up and become more defined

and specific as the Commission and Staff has learned more about the impacts associated with the wind energy development.

And I think early on in the first projects that the Commission permitted in the 2007 to '10 time range, the noise limit was at 50 dBA. And over time it has been scaled down as we understood the impacts with that.

COMMISSIONER FIEGEN: Thank you.

This question I'm treading lightly because I know the record probably doesn't reflect a lot of this.

So the shadow flicker of 30 hours, and that's what the Commissioners, the three Commissioners, have put in most of the permits -- you know, that 30 minutes still is -- I'm always interested in that 30 minutes also, that limit. And is it Minnesota that has that regulation or not?

THE WITNESS: I don't recall off the top of my head.

COMMISSIONER FIEGEN: Okay. So has the PUC Staff and Mr. Hessler continued to look at that 30 minutes also as a maximum per day?

THE WITNESS: First, Mr. Hessler's just noise so it would just be Commission Staff. And the approach that Commission Staff has always taken is, what does the county think is proper, given it's a nuisance issue? And

so if the county said we think 30 minutes is important, Staff would be advocating to include 30 minutes in a proposed permit condition.

But for this docket, it was 30 hours per year, and that's why the Commission -- or why the Commission Staff proposed that.

COMMISSIONER FIEGEN: Mr. Haley explained in his testimony, which I assume you heard -- I think he said that actually their modeling has all that information, but they only submit the total and instead of the day-to-day shadow flicker.

So have you ever thought to ask for a data request of the entire spreadsheet instead of -- I don't know. I assume they must send it to you in a pdf and they probably can't send you the files of their database.

THE WITNESS: In past projects, we have seen graphical results from each individual turbine for an individual receptor. So I think it's broken down by the receptor and what turbines are influencing -- or casting shadow flicker on that receptor at given times.

For this project we did not request that. But given Mr. Haley's testimony, I expect that it could be produced, should the company want to see -- should the Commission want to see that information.

COMMISSIONER FIEGEN: So would you think that

60 minutes of shadow flicker per day would be an annoyance possibly if that family was home?

THE WITNESS: I don't think I can answer that question. It's up to the individual person, I guess, whether or not it's an annoyance. Yeah.

COMMISSIONER FIEGEN: Some days I just wish I could do my own data request. It is so hard sometimes as a Commissioner that I can't come into your office to ask you questions and then, of course, the Commission doesn't ask for data requests.

THE WITNESS: What I can offer is that Commission Staff has not seen a study relating the amount of shadow flicker per day to an annoyance level. So I don't even know if that's been studied and if there's any data out there to support 30 minutes per day, 60 minutes per day, two hours per day, what the proper daily limit is.

COMMISSIONER FIEGEN: Yes. I would agree with you, Mr. Kearney. It appears to me shadow flicker hasn't been studied very much at all. And we're all using a standard across the U.S. and Germany and the European areas. So, yeah, I would agree with you on that. I just wish some days that Commissioners could ask for data requests.

I'm going to go to the FAA. There was only one

more question on the FAA.

So if the Applicant wasn't timely in their application to the FAA on using the ADLS system, would the Commission Staff have any resource in your Condition No. 34 if they weren't timely?

THE WITNESS: First, we would expect the Applicant to notify Commission Staff of any issues with it and then possibly seek an exemption of it pursuant to Condition 41.

If for some reason they don't notify us and then a member of the community complains, there are options for Commission Staff to pursue, such as a show cause order to bring before the Commission to determine whether or not they're in violation of the permit condition or state law. And then the recourse would be determined by the Commission.

COMMISSIONER FIEGEN: Okay. Mr. Kearney, do you have a question for Mr. Eric Paulson that I should ask as my final question?

THE WITNESS: I do not.

COMMISSIONER FIEGEN: Okay. Thank you.

MS. CREMER: Redirect?

MS. REISS: Can we actually take just a quick break? We've heard a lot and we just --

MS. CREMER: Sure.

MS. REISS: Five minutes?

MS. CREMER: Yeah. No, that's fine. I was just trying to think if it should be longer, but let's go with five because it will be longer.

(A short recess is taken.)

MS. CREMER: We will go back on the record.

Staff.

MS. REISS: Thank you. Staff has no redirect.

MS. CREMER: Thank you.

(The witness is excused.)

MS. CREMER: You can call your next witness or whatever. Is that it?

MS. REISS: Staff has no further questions -- or further witnesses and would rest.

MS. CREMER: All right. Thank you.

That would take us to rebuttal. Did you guys need time to think about it, or are you prepared to go forward? Crowned Ridge, I should say.

MR. MURPHY: I'm prepared to say we do not intend to call any rebuttal witnesses.

MS. CREMER: Okay. Thank you very much.

Well, with that, I have some words to read. I have to find them.

So I believe that all of the exhibits listed on that master list from the first day were admitted, along

with the additional exhibit by Ms. Christenson.

And there was just one; is that correct?

MS. CHRISTENSON: (Nods head.)

MS. CREMER: The S7 of Staff. And then with the exception of the portions that we discussed in the motion to strike.

Are there any other exhibits out?

Mr. Swanson.

MR. SWANSON: Madam Examiner, I had put -- oops.

I had put on my exhibit list a request that the Commission consider taking official notice or judicial notice of two items of which I have had some cross-examination undertaken, and that would be the Hessler writing of October 2011, his noise report that was submitted to the Minnesota Public Service Commission. And then, secondly, the NARUC Best Practices Report of January 2012.

I've wrestled with this a bit because, typically, official notice or judicial notice is for adjudicated facts. And I have thought further about it. I do think it is proper to take official notice, in my humble opinion. If not, I would like to at least have the opportunity to late file these as physical exhibits to help support the writing of my brief and any subsequent arguments that I may wish to or need to make

to an appellate court.

I do think that both of these items are integral to our position in proving or trying to establish that simply because the county board claims to have zoning power doesn't mean that they do and that when this Commission stands and uses the very same devices to regulate sound and/or particularly shadow flicker as received on our property, those are the points I wish to challenge. And I would just ask that the Commission consider taking official notice of those two items as are specified.

They are available on the internet. The last time I asked for an agency to take official notice of something, Al Gore hadn't invented the internet yet. So they're readily available. But if the Commission would prefer that I late submit them as exhibits to your docket, I can do that too. It's about 250 pages total.

MS. CREMER: So my ruling would be that we will not take judicial notice of those, and for the reasons that you struggle with. These are not facts generally known within what we have jurisdiction over, zoning power, NARUC's Best Practices. So I will not take judicial notice of those.

As for the late filed, you know, we'll go around the room and see what people's objection, if any, to

submitting those. Good?

All right. So then I will take it you are asking to late file the two exhibits. I think everybody knows which two you are speaking of.

So Crowned Ridge?

MR. MURPHY: Thank you.

With regard to the report that was authored by Mr. Hessler, in my opinion, he laid a foundation with Mr. Hessler that he was familiar with that report and that he authored it. And if you read the second page, it's very clear that NARUC is saying this was authored by Mr. Hessler and it is his opinions. So I have no objection to that report being filed.

With regard to the Stanton report, which is a second NARUC report that was done subsequent to Mr. Hessler, there is no foundation for that, and I would object to that being admitted into the record.

MS. CREMER: Ms. Christenson.

MS. CHRISTENSON: I would have no objection to either exhibit being entered.

MS. CREMER: Okay. Mr. Robish.

MR. ROBISH: No objection to either.

MS. CREMER: Staff.

MS. EDWARDS: Well, generally, impeachment exhibits aren't admitted into the record as exhibits. I

won't object to the first one as counsel for Crowned Ridge stated, however, for the same reasons, I would object to the second.

MS. CREMER: And I would agree with that legal assessment of those two exhibits.

Does that answer your question then?

MR. SWANSON: Well, it gets me part of the way there, but you'll probably still hear about the NARUC Best Practices Report in one way or the other.

MS. CREMER: I look forward to it.

MR. SWANSON: Thank you.

MS. CREMER: Thank you for reminding me of that. You have reminded me of that on numerous occasions and, clearly, I didn't listen.

MR. SWANSON: I had forgotten that I reminded you.

MS. CREMER: So you will late file the one. And then that is all the exhibits, everyone agrees -- oh, no.

Crowned Ridge.

MR. MURPHY: More for clarification. For the Exhibit AC-24, I want to understand whether that's being offered to be part of the record. And if it is, I'm going to object.

MS. CREMER: You'll have to tell me what that is, Ms. Christenson.

Well, first let me ask you, were you asking to have it admitted?

MS. CHRISTENSON: Yes. I offered it as an exhibit during testimony. And I believe it was admitted at that time. I had two exhibits entered during testimony.

MS. CREMER: And what is 24?

MS. CHRISTENSON: That was the e-mail chain between me and GE regarding the enhanced power curve software that I discussed with Mr. Thompson.

MS. CREMER: I would agree with you that you talked to him about it. I would not agree that it was ever offered nor admitted.

Does somebody have different information on that?

MS. CHRISTENSON: I believe I asked at the time if they were admitted and you said yes.

MR. MURPHY: I don't recall that. And if it was the case, I would like to revisit that, because clearly a foundation was not laid with Mr. Thompson. He did not recognize the author from GE or the e-mails so I would object on foundation.

MS. CREMER: And I would agree with that. I don't believe I would have ever allowed in an e-mail chain where the party who wrote the e-mails weren't here

unless everybody agreed to the admission of it and he -- yeah. Then I probably would have.

But normally that would not have been anything that would have been allowed.

So let's go around the room. Mr. Swanson, do you have a dog in this fight or anything you want to say?

MR. SWANSON: No.

MS. CREMER: Mr. Robish.

MR. ROBISH: I thought it should be admitted.

MS. CREMER: Okay. Staff.

MS. REISS: Staff would echo Crowned Ridge's objection.

MS. CREMER: And so with that, I would deny the admission of the e-mail chain if that is AC-24 for the reasons listed: Lack of foundation, lack of ability to cross-examine the people who authored it, for all those reasons.

Does anyone have another -- oh.

MS. EDWARDS: I have an AC-18 on my list as well. And, unfortunately, I did not write down what it was.

A Grant County ordinance. I don't know that that was admitted, but she did identify it as 18. I don't know if she moved to have it in.

MR. MURPHY: I would agree with that, but I

don't have any objections to it being admitted.

MS. CREMER: Do you have an objection to it being admitted?

MS. EDWARDS: No.

MS. CREMER: Mr. Swanson.

MR. SWANSON: No.

MS. CREMER: Mr. Robish?

MR. ROBISH: No.

MS. CREMER: I would admit that. The ordinance will come in.

Anyone else think they need an exhibit admitted? This is your opportunity to get it done because I'm going to close the evidentiary record here.

Seeing nothing, so that will conclude the evidentiary part of the hearing.

Here will be the posthearing procedure. I would like to receive Findings of Fact and Conclusions of Law from the parties, but I am certainly not requiring that they do so. Briefs and findings and conclusions will be due by noon on March 2. On March 17 we will -- there is a regularly scheduled agenda meeting and it will be at that when I anticipate a decision will be made.

We'll determine an amount of time for oral argument and that will all be in the posthearing order.

April 9 is the date the final decision is due. It is my anticipation it will be out before that.

And so the only other thing I would say is if you choose not to file a brief or something that looks like a brief, you may have oral argument today. Otherwise, we would consider your written brief to be your oral argument. And your oral argument would be a limit of five minutes.

So Mr. Swanson has indicated he will be filing a brief. So really I guess it would go to Ms. Christenson and Mr. Robish.

MR. SWANSON: No page limit?

MS. CREMER: Boy, I'd like to page limit you but --

Yeah. Less is better.

I assume Staff and Crowned Ridge will be filing a brief. You don't need oral argument today?

MR. MURPHY: Correct.

MS. REISS: That's correct.

MS. CREMER: And so Ms. Christenson or Mr. Robish, do you want to make final argument today or submit something at a later time?

MS. CHRISTENSON: I'll submit something at a later time. We are going to have a little closing statement. Am I right on that?

MS. CREMER: You mean today?
MS. CHRISTENSON: Yeah.
MS. CREMER: That would be your closing argument.
MS. CHRISTENSON: Okay. So if I have a comment to make today --
MS. CREMER: You know what, I'll let you do that. Just don't go on for an hour. Five minutes.
MS. CHRISTENSON: I'm getting a bad rap here.
MS. CREMER: Mr. Robish, did you want to speak briefly today?
MR. ROBISH: No, I don't.
MS. CREMER: All right. Thank you.
So with that, Ms. Christenson.
MS. CHRISTENSON: I do have brief comments, and that is I just want to thank everyone for their patience with me during this hearing, because I am so out of my wheelhouse. And I appreciate everything.
And I really appreciate you, Examiner Cremer. You've been very fair to me, and I just want to thank you for that.
And I do want to clarify with Commissioner Nelson, I didn't think I was going to get over 30 hours of flicker. I'm speaking for the entire project. So okay.

That's all I have, but thank you very much. It's been a good hearing.

MS. CREMER: Thank you.

Before I give the gavel back to Chairman Hanson, are there any other matters that anyone wants to raise at this time?

Hearing nothing, that concludes my hearing examiner portion of this docket. Thank you to everyone for the professional courtesies extended to all involved. Safe travels to all of you who have to travel further than the Capitol.

And, with that, Chairman Hanson, I would hand the gavel back to you.

CHAIRMAN HANSON: What? No safe travels for us going to the Capitol Building?

I'm not going to have any closing remarks and thank-you's and such. I really do feel everyone did a marvelous job, though, and we all appreciate the travel that you folks go through and wish you safe journeys. And I guess I will say thank you.

So with those, is there a motion?

COMMISSIONER NELSON: Move to adjourn.

CHAIRMAN HANSON: Commissioner Nelson.

COMMISSIONER NELSON: Aye.

CHAIRMAN HANSON: Commissioner Fiegen.

COMMISSIONER FIEGEN: Fiegen votes aye.

CHAIRMAN HANSON: Hanson votes aye. The motion carries.

We are adjourned.

(The hearing is adjourned at 11:47 a.m.)

STATE OF SOUTH DAKOTA)

:SS CERTIFICATE

COUNTY OF SULLY)

I, CHERI MCCOMSEY WITTLER, a Registered Professional Reporter, Certified Realtime Reporter and Notary Public in and for the State of South Dakota:

DO HEREBY CERTIFY that as the duly-appointed shorthand reporter, I took in shorthand the proceedings had in the above-entitled matter on the 6th day of February, 2020, and that the attached is a true and correct transcription of the proceedings so taken.

Dated at Onida, South Dakota this 25th day of February, 2020.

/s/ Cheri McComsey Wittler
Cheri McComsey Wittler,
Notary Public and
Registered Professional Reporter
Certified Realtime Reporter

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$250,000 [1] - 608:17
$5,000 [2] - 609:25, 610:11

'

'10 [1] - 624:5

/

/s [1] - 640:17

1

1 [15] - 529:3, 532:13, 533:3, 533:4, 533:7, 533:7, 533:8, 533:8, 533:9, 543:20, 555:12, 561:23, 563:5, 619:11
1,000 [2] - 537:18, 537:25
1-1 [1] - 533:8
1-4 [1] - 533:9
10 [4] - 594:8, 603:17, 609:22, 610:23
100 [3] - 531:4, 593:1, 617:20
104 [1] - 525:7
105 [1] - 525:8
109 [4] - 562:23, 563:1, 563:2, 563:8
10:00 [1] - 579:23
11 [2] - 573:7, 596:19
111 [1] - 525:10
113 [1] - 525:10
114 [1] - 525:11
11:47 [1] - 639:5
12 [2] - 546:9, 598:16
126 [1] - 525:11
128 [1] - 525:12
13 [2] - 536:2, 611:17
131 [1] - 525:14
136 [1] - 525:14
14 [4] - 529:3, 531:11, 604:22, 611:17
140 [1] - 525:15
146 [1] - 525:15
15 [9] - 572:22, 573:13, 573:16, 594:8, 597:1, 597:8, 598:13, 609:22, 620:24
15-hour [1] - 572:20
150 [1] - 525:16
150,000 [1] - 610:6
152 [1] - 525:16
157 [3] - 562:23, 576:3, 576:21
16 [1] - 546:12
162nd [1] - 595:5
163rd [1] - 595:4
17 [3] - 542:14, 604:22, 635:20
170 [1] - 525:18
173 [1] - 525:19
18 [3] - 532:22, 611:16, 634:23
194 [1] - 525:19
196 [1] - 525:20
1:00 [1] - 588:20

2

2 [4] - 532:13, 555:21, 594:1, 635:20
2-10 [1] - 533:7
2-15 [1] - 532:12
2-16 [2] - 533:8, 563:9
2-2 [1] - 533:7
2.1-116-80 [1] - 531:11
2.3-116-90m [1] - 531:11
20 [3] - 548:8, 584:3, 603:1
200 [5] - 531:3, 531:8, 531:9, 592:13, 592:25
2007 [2] - 540:3, 624:5
201 [1] - 525:20
2011 [3] - 574:21, 575:11, 629:14
2012 [2] - 567:11, 629:17
2016-01C [1] - 532:4
2019 [1] - 551:15
2020 [5] - 523:8, 524:4, 560:9, 640:11, 640:14
20:10:22 [1] - 553:2
21 [1] - 576:21
212 [2] - 590:3, 590:14
213 [2] - 523:25, 525:21
215 [1] - 526:4
216 [2] - 562:23, 563:7
22 [1] - 560:9
220 [1] - 526:4
221 [1] - 561:4
227 [1] - 526:5
24 [1] - 633:7
243 [1] - 526:5
25 [2] - 584:3, 585:10
250 [1] - 630:17
25th [1] - 640:13
26 [3] - 556:23, 557:19, 564:8
26(B) [1] - 557:19
26(E [1] - 557:20
262 [1] - 526:6
263 [1] - 526:6
27 [1] - 557:22
275 [1] - 526:7
277 [1] - 526:7
283 [1] - 526:8
29 [1] - 525:4
292 [1] - 526:8
294 [1] - 526:9

3

3-2 [1] - 533:3
3-8 [1] - 533:4
30 [33] - 548:8, 570:6, 570:10, 570:11, 571:2, 571:3, 573:10, 577:10, 577:25, 578:3, 596:23, 598:13, 598:18, 599:9, 600:7, 600:15, 601:4, 601:25, 602:9, 602:21, 610:10, 618:12, 618:13, 619:4, 624:11, 624:13, 624:14, 624:20, 625:1, 625:2, 625:4, 626:15, 637:23
30-hour-per-year [1] - 573:23
300 [2] - 547:3, 592:13
301 [1] - 526:11
302 [1] - 526:11
31 [1] - 557:25
313 [1] - 526:12
315 [1] - 526:12
316 [1] - 526:13
32 [2] - 525:4, 566:23
321 [1] - 526:15
324 [1] - 526:15
326 [1] - 526:16
33 [1] - 558:4
333 [1] - 526:18
337 [1] - 526:18
34 [5] - 558:15, 558:17, 619:21, 620:12, 627:5
355 [1] - 526:19
367 [1] - 526:19
369 [1] - 526:20
371 [1] - 526:20
375 [1] - 527:4
378 [1] - 527:4
388 [1] - 527:5
395 [1] - 527:5

4

4 [1] - 535:18
40 [8] - 559:2, 575:16, 575:19, 593:7, 593:8, 593:17, 594:3, 594:4
407 [1] - 527:7
41 [2] - 620:13, 627:9
423 [1] - 527:11
429 [1] - 527:11
430 [1] - 527:12
431 [1] - 527:12
439 [1] - 527:14
442 [1] - 527:15
446 [1] - 527:17
45 [6] - 575:17, 575:20, 577:11, 578:1, 578:2, 594:5
450 [1] - 527:17
452 [1] - 527:21
459 [1] - 527:21
46 [1] - 525:5
463 [1] - 527:22
469 [1] - 527:22
489 [1] - 527:23
49-41B [1] - 553:4
49-41B-11(5 [1] - 592:19
49-41B-33 [1] - 559:8
490 [1] - 527:23
494 [1] - 528:4
497 [1] - 528:4

5

5 [2] - 557:20, 579:23
50 [2] - 578:2, 624:6
508 [1] - 528:5
511 [1] - 528:5
514 [1] - 528:6
518 [1] - 528:6
523 [1] - 524:3
523-640 [1] - 523:9
534 [1] - 528:8
537 [1] - 528:9
539 [1] - 528:11
542 [1] - 528:11
549 [1] - 528:12
550 [1] - 528:14
560 [1] - 528:14
580 [1] - 528:15

6

6 [6] - 523:8, 532:22, 551:15, 576:3, 592:9, 593:5
60 [4] - 543:7, 543:9, 626:1, 626:15
60,000 [1] - 610:6
600 [1] - 612:24
608 [1] - 528:15
616 [1] - 528:16
6th [2] - 524:4, 640:10

7

7 [1] - 564:8
7.4 [1] - 596:18
73 [1] - 525:5
74 [1] - 525:6
7:00 [9] - 588:13, 588:18, 588:20, 588:22, 588:25, 589:2

8

8 [1] - 546:9
81 [1] - 525:6
8:30 [2] - 523:8, 524:5

9

9 [4] - 556:8, 592:9, 593:5, 636:1
90 [3] - 604:2, 604:7, 604:14
98 [1] - 525:7

A

A.J [1] - 523:18
A.J.'s [1] - 596:20
a.m [8] - 523:8, 524:5, 588:13, 588:18, 588:20, 588:22, 589:2, 639:5
A1 [1] - 529:3
A1-A [1] - 529:3
A1-B [1] - 529:4
A1-C [1] - 529:5
A1-D [1] - 529:5
A1-E [1] - 529:6
A1-F [1] - 529:6
A1-G [1] - 529:7
A1-H [1] - 529:8
A1-I [1] - 529:8
A1-J [1] - 529:9
A1-K [1] - 529:9
A1-L [1] - 529:10
A1-M [1] - 529:10
A1-N [1] - 529:11
A1-O [1] - 529:11
A10 [1] - 529:21
A11 [1] - 529:22
A12 [1] - 529:23
A12-1 [1] - 529:23
A12-10 [1] - 530:14
A12-11 [1] - 530:16

A12-12 [1] - 530:17
A12-13 [1] - 530:18
A12-14 [1] - 530:19
A12-15 [1] - 530:20
A12-16 [1] - 530:21
A12-2 [1] - 530:3
A12-3 [1] - 530:4
A12-4 [1] - 530:5
A12-5 [1] - 530:7
A12-6 [1] - 530:8
A12-7 [1] - 530:10
A12-8 [1] - 530:12
A12-9 [1] - 530:13
A13 [1] - 530:22
A13-1 [1] - 530:23
A13-2 [1] - 531:3
A13-3 [1] - 531:4
A14 [1] - 531:5
A14-1 [1] - 531:6
A14-2 [1] - 531:7
A14-3 [1] - 531:8
A14-4 [1] - 531:9
A15 [1] - 531:12
A16 [1] - 531:12
A16-1 [1] - 531:13
A17 [1] - 531:13
A17-1 [1] - 531:14
A17-2 [1] - 531:14
A17-3 [1] - 531:15
A17-4 [1] - 531:15
A17-5 [1] - 531:17
A17-6 [1] - 531:18
A17-7 [1] - 531:19
A18 [1] - 531:20
A18-1 [1] - 531:21
A18-2 [1] - 531:23
A19 [1] - 532:3
A19-1 [1] - 532:3
A19-2 [1] - 532:4
A19-3 [1] - 532:4
A19-4 [1] - 532:5
A2 [1] - 529:12
A20 [1] - 532:6
A21 [1] - 532:6
A21-1 [1] - 532:7
A21-2 [1] - 532:8
A21-3 [1] - 532:9
A22 [1] - 532:10
A23 [1] - 532:10
A24 [1] - 532:11
A25 [1] - 532:11
A26 [1] - 532:12
A27 [1] - 532:12
A27-1 [1] - 532:13
A27-2 [2] - 532:13, 590:2
A28 [6] - 560:11, 560:24, 560:25, 561:15, 561:17, 563:6
A3 [1] - 529:12
A4 [1] - 529:13
A4-1 [1] - 529:13
A5 [1] - 529:14
A5-1 [1] - 529:14
A6 [1] - 529:15
A6-1 [1] - 529:15
A6-2 [1] - 529:16
A7 [1] - 529:16
A7-1 [1] - 529:17
A7-2 [1] - 529:17
A7-3 [1] - 529:18
A8 [1] - 529:19
A9 [1] - 529:20
ability [4] - 558:9, 588:4, 611:4, 634:15
able [9] - 537:24, 538:4, 551:25, 557:9, 583:23, 593:6, 593:16, 600:16, 620:23
above-entitled [2] - 524:2, 640:10
absent [1] - 568:19
absolutely [1] - 562:22
AC-1 [1] - 532:21
AC-10 [1] - 533:6
AC-11 [1] - 533:7
AC-12 [1] - 533:7
AC-13 [1] - 533:8
AC-14 [1] - 533:8
AC-15 [1] - 533:9
AC-18 [1] - 634:19
AC-2 [1] - 532:22
AC-24 [2] - 632:21, 634:14
AC-3 [1] - 532:23
AC-4 [1] - 532:23
AC-5 [1] - 533:3
AC-6 [1] - 533:3
AC-7 [1] - 533:4
AC-8 [1] - 533:4
AC-9 [1] - 533:5
accepted [1] - 544:17
access [3] - 535:23, 542:22, 543:9
accordance [5] - 556:10, 559:5, 577:6, 605:23, 606:20
according [4] - 546:21, 582:13, 582:14, 593:17
account [12] - 557:25, 558:5, 558:12, 580:25, 581:24, 594:10, 594:15, 603:20, 609:8, 610:15, 610:18, 610:20
Account [1] - 530:11
accounted [2] - 604:23, 605:5
accounting [1] - 603:18
accounts [1] - 581:17
accumulate [1] - 610:7
accumulated [1] - 598:23
accumulates [1] - 613:22
accumulation [1] - 613:23
accumulative [2] - 594:10, 603:18
accurate [2] - 552:5, 564:18
achievable [1] - 593:21
achieve [1] - 593:7
Acoustic [1] - 529:5
activities [6] - 543:5, 556:14, 556:21, 589:13, 589:14, 590:17
activity [3] - 567:21, 589:1, 591:18
actual [2] - 605:16, 619:12
Adam [1] - 523:14
add [4] - 555:5, 587:5, 608:3, 610:22
added [4] - 557:25, 559:2, 559:3, 605:21
addition [4] - 593:1, 596:10, 596:11, 608:7
additional [12] - 535:19, 535:21, 543:11, 543:13, 543:14, 552:24, 557:7, 607:3, 610:22, 612:16, 629:1
additions [4] - 535:14, 540:13, 592:20, 592:24
address [4] - 553:2, 568:6, 586:3, 604:11
addressed [6] - 541:3, 551:21, 553:13, 553:16, 574:1, 592:18
addressing [1] - 557:23
adequate [2] - 611:4, 611:24
adjacent [6] - 557:4, 590:6, 594:10, 594:13, 595:6, 603:19
adjourn [1] - 638:22
adjourned [2] - 639:4, 639:5
adjudicated [1] - 629:20
adjust [2] - 591:11, 611:1
ADLS [3] - 558:20, 619:21, 627:3
administered [3] - 534:11, 539:3, 550:13
Administration [1] - 556:12
admission [3] - 554:15, 634:1, 634:14
admit [1] - 635:9
admitted [13] - 555:3, 628:25, 631:17, 631:25, 633:2, 633:4, 633:13, 633:17, 634:9, 634:23, 635:1, 635:3, 635:11
adopted [1] - 569:22
advance [1] - 543:7
advances [1] - 585:1
advancing [2] - 578:10, 578:13
advocated [1] - 594:4
advocating [2] - 617:23, 625:2
aerial [1] - 590:12
Affidavit [5] - 529:21, 532:16, 532:17, 532:18, 532:18
affidavit [3] - 555:18, 619:12, 619:14
Affidavits [1] - 529:22
afforded [1] - 602:7
agencies [3] - 553:9, 565:24, 566:2
Agency [1] - 529:4
agency [4] - 553:7, 564:18, 565:17, 630:13
agenda [1] - 635:21
Aggregate [1] - 530:9
agree [17] - 544:1, 552:10, 552:11, 554:13, 578:14, 578:16, 589:24, 618:3, 618:24, 621:20, 626:18, 626:22, 632:4, 633:11, 633:12, 633:23, 634:25
agreed [9] - 538:16, 572:22, 582:14, 588:14, 617:14, 617:16, 617:19, 617:23, 634:1
Agreement [2] - 530:23, 532:16
agreement [3] - 544:22, 544:25, 610:18
agrees [1] - 632:18
ahead [1] - 562:16
Aircraft [1] - 558:17
Al [2] - 609:3, 630:14
allegation [5] - 600:13, 602:7, 602:12, 603:3, 603:9
Allen [1] - 523:21
alleviate [1] - 601:20
allow [2] - 542:22, 562:21
allowed [2] - 633:24, 634:4
allows [1] - 610:19
Alternate [1] - 532:5
alternative [1] - 620:17
Amanda [1] - 523:23
Amber [1] - 523:20
amend [1] - 622:12
amended [4] - 557:22, 558:11, 558:19, 604:16
amount [14] - 537:24, 541:12, 558:25, 573:14, 597:1, 598:9, 601:15, 609:19, 610:2, 610:23, 623:22, 623:23, 626:12, 635:24
AMY [1] - 527:13
Amy [1] - 532:18
analysis [1] - 547:24
Analysis [2] - 531:13, 532:21
analyst [1] - 550:23
analysts [1] - 586:9
AND [1] - 523:5
angle [3] - 561:18, 599:4, 599:13
angles [1] - 618:16
Annoyance [3] - 530:7, 530:9, 530:14
annoyance [4] - 601:7, 626:2, 626:5, 626:13

annually [3] - 577:10, 597:1, 610:21
answer [18] - 535:4, 535:19, 546:9, 547:7, 565:18, 571:13, 571:23, 577:21, 589:7, 594:12, 596:22, 597:10, 600:2, 615:11, 615:14, 621:1, 626:3, 632:6
answered [5] - 565:16, 571:20, 603:12, 612:2, 615:17
answers [6] - 536:8, 540:17, 546:8, 552:18, 616:2, 617:11
anticipate [1] - 635:22
anticipation [1] - 636:2
apart [1] - 596:18
app [3] - 543:8, 543:11, 543:17
appearing [5] - 523:17, 523:19, 523:20, 523:22, 523:23
appellate [1] - 630:1
Appendix [15] - 529:3, 529:4, 529:5, 529:5, 529:6, 529:6, 529:7, 529:8, 529:8, 529:9, 529:9, 529:10, 529:10, 529:11, 529:11
applicable [4] - 555:22, 556:6, 559:6, 605:23
Applicant [31] - 537:18, 538:14, 541:11, 542:17, 544:13, 545:1, 554:4, 554:13, 555:17, 555:24, 559:5, 561:16, 566:10, 572:21, 580:17, 584:14, 586:19, 588:22, 588:25, 597:24, 598:5, 599:8, 602:6, 602:13, 602:14, 611:17, 613:14, 617:14, 627:2, 627:7
applicant [6] - 577:6, 577:14, 592:20, 595:11, 599:24
APPLICANT'S [7] - 525:2, 526:2, 527:2, 529:2, 530:2, 531:2, 532:2
Applicant's [10] - 532:23, 533:3, 533:4, 533:5, 533:8, 548:17, 552:5, 552:9, 579:11, 613:25
Applicants [1] - 543:6
applicants [3] - 555:14, 556:9, 595:15
Application [11] - 529:3, 529:20, 532:17, 534:3, 553:12, 558:6, 584:1, 592:9, 592:10, 596:7, 609:21
APPLICATION [1] - 523:4
application [5] - 551:4, 553:1, 580:24, 620:9, 627:3
applications [8] - 552:24, 553:3, 567:18, 574:23, 583:19, 599:1, 599:2, 614:1
applied [4] - 593:18, 593:19, 596:23, 597:3
appointed [1] - 640:8
appreciate [12] - 544:12, 545:14, 548:12, 570:25, 617:10, 618:7, 619:9, 619:22, 620:14, 637:18, 637:19, 638:18
approach [1] - 624:23
approached [2] - 584:14, 613:5
approaching [1] - 618:12
appropriate [1] - 572:16
approval [4] - 586:20, 602:11, 619:24, 620:12
approved [2] - 546:16, 579:15
approximate [1] - 537:21
April [1] - 636:1
Aquatic [1] - 529:5
archaeological [1] - 537:23
Archaeological [1] - 531:21
archeologist [1] - 538:7
Architectural [1] - 531:23
area [15] - 546:14, 546:25, 556:20, 558:2, 558:3, 583:22, 594:20, 595:4, 595:12, 597:7, 597:9, 612:13, 612:14, 614:25, 623:3
areas [11] - 535:25, 538:2, 542:13, 542:16, 542:18, 543:3, 546:22, 549:14, 584:14, 626:22
argument [12] - 578:10, 578:12, 578:15, 578:17, 635:25, 636:5, 636:7, 636:17, 636:21, 637:4
argumentative [2] - 581:5, 603:12
arguments [1] - 629:25
array [1] - 531:3
Array [1] - 531:22
ARSD [1] - 553:2
assembled [1] - 595:18
Assess [1] - 530:22
Assessment [3] - 529:6, 530:13, 531:24
assessment [1] - 632:5
assets [1] - 607:25
assist [1] - 553:6
associated [8] - 567:1, 567:9, 589:1, 589:18, 591:8, 596:8, 610:8, 624:2
Association [1] - 530:8
assume [8] - 535:4, 547:9, 560:5, 566:17, 582:2, 625:8, 625:14, 636:16
assumed [2] - 563:13, 564:3
assuming [1] - 577:24
assumption [1] - 582:1
assumptions [1] - 618:18
assured [1] - 542:15
atlas [1] - 543:21
attached [4] - 554:3, 598:13, 623:24, 640:11
attaches [1] - 586:18
Attachment [9] - 532:13, 532:13, 533:3, 533:4, 533:7, 533:7, 533:8, 533:8, 533:9
attempted [1] - 554:12
attention [4] - 535:7, 540:7, 551:6, 553:20
attesting [1] - 555:19
attorneys [1] - 578:22
Audible [1] - 530:10
author [1] - 633:21
authored [5] - 571:1, 631:7, 631:10, 631:11, 634:16
authoritative [2] - 567:25, 569:11
authority [4] - 545:6, 545:21, 559:9, 579:12
available [7] - 547:10, 580:13, 582:16, 584:19, 584:24, 630:12, 630:15
Avenue [1] - 524:3
avenues [1] - 594:24
Avian [1] - 529:8
avoid [4] - 536:20, 540:24, 541:16, 547:2
avoidance [1] - 541:19
avoiding [1] - 536:18
aware [8] - 565:4, 569:2, 572:17, 573:17, 581:22, 583:18, 589:12, 589:13
aye [3] - 638:24, 639:1, 639:2

B

B2004-01-23B [1] - 532:3
bad [1] - 637:9
bailiwick [1] - 583:22
balance [5] - 580:15, 581:1, 581:6, 581:24, 582:6
Base [1] - 530:21
Based [1] - 530:10
based [27] - 535:4, 536:3, 541:10, 549:25, 552:25, 558:5, 559:3, 559:14, 565:8, 568:7, 572:10, 573:10, 579:8, 579:11, 587:24, 593:25, 596:1, 599:2, 599:3, 599:11, 611:10, 618:15, 618:25, 619:5, 620:5, 622:24
baseline [1] - 609:7
basis [11] - 545:18, 545:23, 553:11, 559:16, 569:25, 572:10, 600:21, 609:24, 610:7, 610:23, 622:7
Bat [2] - 529:5, 529:6
batch [13] - 535:24, 590:3, 590:7, 590:9, 590:13, 590:16, 590:23, 591:3, 591:6, 591:8, 591:12, 591:17
Baucom [1] - 523:15
bearing [1] - 578:19
become [1] - 623:25
becomes [2] - 582:16, 601:19
BEFORE [1] - 523:10
Before-After [1] - 530:5
begin [2] - 534:7, 570:17
behalf [4] - 523:17, 523:19, 523:23, 578:13
behind [1] - 599:4
believes [2] - 571:14, 593:20
below [1] - 577:15
Ben [2] - 576:7, 576:15
beneficial [1] - 585:2
benefit [1] - 623:3
best [15] - 552:14, 567:3, 567:6, 567:8, 567:10, 567:16, 567:20, 567:24, 568:6, 573:25, 574:8, 616:25, 629:16, 630:22, 632:9
better [3] - 602:22, 623:12, 636:15
Between [1] - 530:8
between [7] - 553:25, 575:19, 596:17, 620:19, 621:12, 622:4, 633:9
beyond [1] - 613:21

bid [1] - 609:18
bids [1] - 609:6
big [3] - 548:18, 549:6, 606:4
bills [1] - 581:24
biologist [1] - 539:23
biologists [1] - 547:18
bird [2] - 547:2, 607:20
bit [10] - 542:14, 545:5, 548:9, 548:22, 553:10, 563:11, 593:23, 594:21, 616:15, 629:18
blade [3] - 583:17, 613:11, 613:24
blades [6] - 585:3, 585:4, 585:11, 593:13, 613:20, 613:22
board [1] - 630:4
Bon [2] - 573:24, 574:6
books [2] - 621:17, 621:18
boots [3] - 586:4, 586:24
bottom [1] - 595:5
boundary [3] - 552:1, 552:6
boy [2] - 576:20, 636:13
break [1] - 627:24
breeding [1] - 547:2
BREF [1] - 530:13
Brian [1] - 523:17
brief [10] - 536:11, 540:20, 552:21, 629:24, 636:4, 636:5, 636:6, 636:10, 636:17, 637:15
briefly [7] - 534:20, 534:25, 539:24, 550:24, 569:11, 574:15, 637:11
briefs [2] - 579:6, 635:19
bring [5] - 592:14, 600:1, 600:22, 602:10, 627:13
brings [1] - 600:24
broken [1] - 625:18
brother [1] - 591:3
Brown [1] - 532:22
build [4] - 580:14, 587:1, 592:14, 605:15
Building [2] - 524:3, 638:15
building [2] - 555:16, 587:4
built [1] - 592:25
burden [3] - 554:4, 579:12, 599:17
buried [1] - 535:23
bus [1] - 612:4
business [1] - 582:5
butchered [1] - 539:7
butting [1] - 622:20
BY [8] - 523:4, 534:13, 539:5, 549:12, 550:15, 560:2, 580:4, 609:2

C

calculated [1] - 609:24
cannot [1] - 605:7
capacity [1] - 584:23
Capitol [3] - 524:3, 638:11, 638:15
capture [3] - 557:3, 604:15, 605:21
car [2] - 612:3, 612:6
car's [1] - 616:22
cardiologist [1] - 576:8
care [2] - 611:6, 614:6
carrier [2] - 614:6, 614:14
carries [1] - 639:3
carry [1] - 614:10
Case [1] - 531:9
case [19] - 531:10, 534:7, 537:1, 569:24, 570:4, 570:13, 572:9, 572:23, 573:17, 573:18, 577:9, 577:24, 594:5, 605:17, 608:13, 613:9, 633:19
case-by-case [2] - 569:24, 572:9
cases [2] - 566:10, 608:3
cash [1] - 582:7
casting [1] - 625:19
caused [1] - 611:18
caution [2] - 601:1, 622:17
cautious [1] - 620:7
cement [2] - 585:12, 590:9
Center [1] - 524:3
certain [10] - 546:11, 555:9, 556:21, 557:16, 558:25, 570:5, 583:22, 601:2, 601:15
certainly [5] - 537:17, 562:18, 621:2, 622:8, 635:18
CERTIFICATE [1] - 640:2
Certified [2] - 640:6, 640:19
CERTIFY [1] - 640:8
cetera [2] - 541:20, 583:2
chain [3] - 633:8, 633:25, 634:14
CHAIRMAN [36] - 523:11, 523:11, 538:11, 538:13, 538:18, 544:10, 544:12, 544:17, 544:20, 544:25, 545:10, 545:13, 545:17, 545:20, 546:3, 546:5, 546:8, 547:9, 547:22, 548:2, 548:7, 557:17, 557:21, 616:10, 616:12, 616:14, 616:22, 617:7, 617:20, 617:25, 618:4, 618:6, 638:14, 638:23, 638:25, 639:2
Chairman [6] - 538:10, 544:9, 606:24, 616:9, 638:4, 638:12
challenge [1] - 630:9
challenges [1] - 548:10
chance [1] - 560:9
Change [1] - 531:5
change [3] - 563:19, 563:23, 596:3
changed [4] - 539:16, 573:13, 574:3, 623:19
changes [9] - 555:8, 555:11, 555:12, 557:5, 557:7, 559:15, 559:18, 561:11, 579:7
changing [1] - 623:13
chapter [1] - 553:5
characteristics [1] - 584:10
Charles [2] - 569:6, 574:6
cheap [1] - 606:1
check [2] - 561:20, 580:23
checkbook [1] - 581:23
checking [2] - 580:25, 581:24
checklist [1] - 587:4
checks [1] - 612:15
Cheri [4] - 523:24, 621:3, 640:17, 640:18
CHERI [1] - 640:5
choice [2] - 590:23, 614:20
choose [3] - 599:20, 606:8, 636:4
chooses [2] - 614:24, 622:19
chose [1] - 590:15
Chris [1] - 529:23
CHRIS [1] - 523:11
Christenson [32] - 523:20, 525:5, 525:7, 525:11, 525:15, 525:19, 526:5, 526:8, 526:12, 526:15, 526:19, 527:4, 527:11, 527:22, 527:23, 528:5, 528:15, 537:8, 542:5, 550:5, 554:11, 554:21, 556:12, 580:1, 582:24, 602:8, 629:1, 631:18, 632:25, 636:10, 636:20, 637:14
CHRISTENSON [25] - 537:9, 542:6, 550:6, 554:22, 580:2, 580:4, 581:18, 582:25, 583:9, 583:13, 592:2, 592:6, 603:16, 603:21, 608:20, 629:3, 631:19, 633:3, 633:8, 633:16, 636:23, 637:2, 637:5, 637:9, 637:15
CHRISTENSON'S [2] - 532:20, 533:2
Christenson's [3] - 532:23, 618:10, 619:1
Christopher [1] - 532:6
CHRISTOPHER [1] - 526:17
circulated [1] - 560:8
city [1] - 551:24
civil [2] - 606:10, 606:11
claim [2] - 579:9, 614:17
claims [1] - 630:4
clarification [2] - 598:1, 632:20
clarify [3] - 558:20, 619:17, 637:22
clarifying [1] - 597:25
clear [1] - 631:11
clearly [3] - 537:1, 632:14, 633:19
clients [1] - 576:2
close [4] - 543:10, 546:22, 612:18, 635:13
closed [3] - 543:3, 573:12, 620:25
closer [2] - 563:24, 606:15
closing [3] - 636:24, 637:3, 638:16
closures [1] - 556:21
Co [3] - 531:11, 532:3, 532:4
CO-S-1 [1] - 529:23
CO-S-10 [1] - 530:14
CO-S-11 [1] - 530:16
CO-S-12 [1] - 530:17
CO-S-13 [1] - 530:18
CO-S-14 [1] - 530:19
CO-S-15 [1] - 530:20
CO-S-16 [1] - 530:21
CO-S-2 [1] - 530:3
CO-S-3 [1] - 530:4
CO-S-4 [1] - 530:5
CO-S-5 [1] - 530:7
CO-S-6 [1] - 530:8
CO-S-7 [1] - 530:10
CO-S-8 [1] - 530:12
CO-S-9 [1] - 530:13
Code [1] - 556:2
Codified [1] - 553:4
Codington [5] - 531:6, 531:7, 531:11, 534:5, 604:23
CODINGTON [1] - 523:5
collect [2] - 547:21, 602:14
collecting [1] - 602:19
collector [1] - 535:24
combined [1] - 595:12
comfortable [5] - 555:17, 556:5, 569:16, 569:18,

622:13
coming [4] - 560:23, 570:12, 602:20, 615:5
commencing [1] - 524:5
comment [2] - 606:24, 637:5
comments [2] - 622:2, 637:15
commercial [4] - 555:18, 604:3, 619:25, 620:1
COMMISSION [3] - 523:1, 523:10, 523:13
Commission [97] - 536:12, 550:17, 550:21, 551:2, 552:9, 553:11, 554:3, 555:10, 555:13, 555:18, 555:24, 556:9, 557:14, 558:8, 558:18, 559:9, 559:13, 565:12, 566:5, 566:7, 568:23, 569:17, 569:22, 570:1, 572:5, 572:10, 572:14, 573:10, 573:12, 574:2, 575:13, 579:13, 579:15, 585:22, 586:17, 586:20, 587:18, 588:6, 589:12, 589:13, 593:7, 595:22, 596:23, 598:9, 600:1, 600:22, 601:12, 601:13, 601:14, 602:11, 604:19, 604:20, 605:24, 606:8, 606:10, 606:21, 607:14, 610:19, 610:21, 611:3, 611:7, 611:11, 611:23, 616:8, 620:13, 621:11, 621:12, 621:13, 622:3, 622:21, 623:1, 623:7, 623:24, 624:1, 624:5, 624:23, 624:24, 625:5, 625:24, 626:9, 626:12, 627:4, 627:7, 627:12, 627:13, 627:16, 629:11, 629:15, 630:6, 630:9, 630:15
Commission's [3] - 568:22, 569:15, 573:11
Commissioner [26] - 525:6, 525:12, 525:16, 525:20, 526:6, 526:13, 526:16, 526:20, 527:5, 527:7, 527:12, 527:15, 527:17, 527:22, 528:6, 528:9, 528:11, 528:16, 537:12, 537:15, 542:9, 549:13, 626:8, 637:22, 638:23, 638:25
COMMISSIONER [35] - 523:12, 537:13, 537:16, 538:8, 542:10, 542:12, 543:13, 543:16, 543:24, 544:7, 548:15, 549:8, 618:9, 618:19, 618:25, 619:7, 619:20, 620:14, 620:22, 621:6, 621:9, 621:24, 622:25, 623:9, 624:8, 624:19, 625:7, 625:25, 626:6, 626:18, 627:17, 627:21, 638:22, 638:24, 639:1
Commissioners [4] - 597:3, 624:12, 626:23
commit [1] - 584:18
commitment [2] - 547:23, 552:9
commits [1] - 591:15
committed [6] - 536:17, 536:19, 593:13, 593:15, 604:13, 613:14
common [1] - 566:25
community [2] - 586:6, 627:11
companies [2] - 540:2, 599:15
company [38] - 536:14, 542:24, 552:11, 556:15, 557:6, 571:11, 581:23, 582:1, 582:4, 588:24, 590:15, 590:21, 591:11, 591:14, 592:15, 594:22, 600:16, 601:16, 603:4, 604:8, 604:9, 604:13, 606:1, 606:19, 610:22, 611:23, 614:21, 615:13, 615:14, 615:20, 615:21, 615:22, 616:18, 616:24, 617:1, 617:24, 619:24, 625:23
Company [3] - 557:8, 558:7, 558:14
company's [1] - 556:19
compelling [1] - 607:1
competitor [1] - 622:19
complains [3] - 599:7, 606:14, 627:11
complaint [13] - 588:25, 589:2, 589:12, 600:4, 600:22, 601:17, 601:18, 601:19, 601:23, 601:24, 602:3, 603:23
complaints [5] - 567:1, 586:4, 588:15, 589:18, 589:20
complete [1] - 592:10
completed [2] - 557:16, 604:8
completely [2] - 538:14, 618:22
Completeness [1] - 592:9
compliance [4] - 534:19, 582:21, 600:21, 605:11
complied [1] - 556:4
complies [1] - 605:8
concentration [1] - 546:17
concern [8] - 551:21, 555:23, 568:6, 592:15, 596:14, 602:2, 611:7, 612:10
concerned [7] - 545:17, 545:20, 546:19, 546:23, 547:5, 584:17, 594:3
concerning [1] - 614:1
concerns [12] - 536:3, 536:21, 553:9, 553:13, 556:13, 557:9, 586:4, 586:5, 591:8, 592:17, 602:25, 604:12
concert [1] - 590:25
conclude [4] - 551:25, 560:7, 560:17, 635:14
concluded [1] - 565:20
concludes [3] - 559:19, 562:9, 638:7
conclusion [2] - 582:20, 600:14
conclusions [2] - 608:8, 635:19
Conclusions [1] - 635:17
concrete [3] - 535:24, 590:13, 591:12
Condition [11] - 555:12, 555:21, 556:8, 556:23, 557:19, 559:2, 619:11, 620:12, 620:13, 627:4, 627:9
condition [52] - 541:6, 541:13, 552:8, 552:12, 553:15, 556:5, 556:7, 556:24, 557:13, 557:22, 557:25, 558:4, 558:11, 558:15, 558:17, 558:18, 559:4, 573:9, 586:18, 588:9, 588:12, 588:14, 588:18, 588:23, 589:4, 589:22, 593:8, 593:18, 596:25, 598:17, 599:6, 600:25, 601:14, 604:6, 604:17, 605:21, 607:18, 607:24, 611:10, 611:16, 613:4, 613:13, 617:19, 618:3, 619:22, 620:5, 620:10, 620:11, 621:25, 622:12, 625:3, 627:14
Conditional [1] - 529:9
conditions [29] - 553:25, 554:2, 554:7, 554:10, 554:12, 555:6, 555:8, 555:9, 559:1, 559:16, 571:8, 571:10, 574:2, 577:18, 577:24, 578:20, 579:8, 579:11, 579:16, 585:22, 586:2, 591:10, 596:24, 597:24, 598:5, 613:12, 617:23, 619:9, 623:24
Conditions [3] - 530:20, 531:20, 533:16
conduct [1] - 568:1
conducted [1] - 557:2
Confidential [2] - 529:11, 533:13
configuration [1] - 593:11
configured [1] - 597:9
confirm [1] - 562:15
conflicts [1] - 542:25
confused [1] - 583:9
confuses [1] - 563:11
confusing [1] - 583:8
conservative [1] - 618:18
consider [8] - 582:10, 592:10, 607:24, 608:2, 611:24, 629:11, 630:10, 636:6
consideration [3] - 535:22, 568:18, 623:7
considered [4] - 574:9, 584:5, 592:24, 607:4
considering [2] - 574:3, 593:20
consisted [1] - 552:23
consistent [3] - 558:10, 558:16, 568:22
construct [2] - 559:5, 587:18
constructed [6] - 559:11, 587:20, 587:25, 605:23, 606:7, 607:13
construction [16] - 543:5, 556:14, 556:21, 585:16, 586:21, 588:10, 588:12, 589:1, 589:13, 589:14, 589:18, 589:21, 590:17, 591:2, 591:19, 604:9
consultation [2] - 553:8, 566:11

contact [10] - 576:9, 601:5, 614:17, 614:21, 614:22, 615:13, 615:14, 615:22, 617:3, 617:5
contacted [1] - 614:16
contacting [1] - 616:24
contemplate [1] - 592:23
contemplated [1] - 593:2
contest [1] - 570:2
contested [1] - 570:4
continue [4] - 545:21, 569:10, 582:15, 612:1
Continued [8] - 526:1, 527:1, 528:1, 529:1, 530:1, 531:1, 532:1, 533:1
continued [1] - 624:20
contract [1] - 576:24
contribution [1] - 597:16
Control [2] - 556:11, 556:17
control [6] - 556:16, 568:25, 569:8, 569:12, 591:5, 613:11
controlling [1] - 613:15
convenient [1] - 560:13
conversation [1] - 549:13
cooperate [1] - 545:22
cooperation [3] - 545:1, 545:7, 545:24
Cooperative [1] - 532:21
cooperative [2] - 538:14, 544:14
coordinate [1] - 575:3
coordinates [1] - 540:1
Coordination [1] - 529:4
coordination [4] - 538:6, 540:3, 553:7, 557:15
coordinator [1] - 534:19
copy [1] - 574:16
correct [43] - 537:20, 539:8, 544:23, 544:24, 552:14, 561:4, 561:5, 561:12, 561:13, 564:14, 564:16, 564:22, 564:24, 565:25, 567:22, 567:23, 568:13, 568:14, 568:16, 568:25, 569:3, 572:8, 572:9, 576:14, 577:22, 578:1, 582:17, 582:18, 586:17, 589:25, 592:10, 592:11, 597:4, 604:4, 604:5, 618:14, 618:16, 621:14, 629:2, 636:18, 636:19, 640:12
Corrected [1] - 532:17
correction [1] - 536:6
corrections [3] - 535:14, 540:13, 551:16
correctly [7] - 549:15, 562:11, 562:12, 577:13, 587:21, 605:19, 605:20
Correspondence [1] - 529:4
cost [13] - 558:9, 609:5, 609:6, 609:10, 609:16, 609:17, 609:20, 610:5, 610:7, 610:9, 610:13, 610:14, 611:2
costs [2] - 609:13, 609:14
counsel [3] - 571:21, 578:20, 632:1
COUNTIES [1] - 523:6
Counties [2] - 531:6, 534:5
counties [2] - 568:5, 569:5
COUNTY [1] - 640:3
County [7] - 529:9, 532:22, 573:24, 604:23, 605:5, 605:6, 634:22
county [12] - 568:8, 568:16, 568:17, 568:19, 569:12, 573:10, 574:1, 574:11, 605:7, 624:25, 625:1, 630:4
couple [6] - 551:18, 554:10, 565:19, 576:18, 580:12, 619:8
course [6] - 543:17, 551:1, 574:13, 596:3, 609:11, 626:9
court [6] - 534:11, 539:3, 550:13, 570:13, 571:17, 630:1
courtesies [1] - 638:9
coverage [2] - 614:2, 614:3
crammed [1] - 597:6
crane [8] - 535:23, 552:8, 552:11, 553:16, 607:17, 607:18, 617:19, 618:2
cranes [2] - 606:25, 607:7
create [1] - 592:15
Creek [2] - 549:21, 588:1
CREMER [89] - 534:1, 536:25, 537:6, 537:8, 537:10, 537:12, 537:15, 538:10, 538:19, 538:22, 541:24, 542:3, 542:5, 542:7, 542:9, 544:9, 549:9, 549:25, 550:3, 550:5, 550:7, 550:9, 554:17, 554:19, 554:21, 554:23, 554:25, 555:3, 559:22, 559:25, 562:18, 571:6, 571:12, 571:20, 579:21, 579:23, 579:25, 581:4, 581:11, 581:19, 582:23, 583:7, 583:11, 591:1, 591:22, 591:25, 603:15, 608:22, 615:18, 615:23, 616:2, 616:6, 616:8, 627:22, 627:25, 628:2, 628:6, 628:9, 628:11, 628:15, 628:21, 629:4, 630:18, 631:18, 631:21, 631:23, 632:4, 632:10, 632:12, 632:17, 632:24, 633:7, 633:11, 633:23, 634:8, 634:10, 634:13, 635:2, 635:5, 635:7, 635:9, 636:13, 636:20, 637:1, 637:3, 637:7, 637:10, 637:13, 638:3
Cremer [2] - 523:13, 637:19
criteria [1] - 591:14
Crocker [1] - 588:1
Cross [37] - 525:4, 525:5, 525:5, 525:6, 525:10, 525:11, 525:11, 525:14, 525:15, 525:15, 525:16, 525:19, 525:19, 525:20, 526:4, 526:5, 526:5, 526:11, 526:12, 526:12, 526:15, 526:18, 526:19, 526:19, 526:20, 527:4, 527:5, 527:11, 527:12, 527:21, 527:22, 528:4, 528:5, 528:5, 528:14, 528:15, 528:15
cross [5] - 536:24, 541:23, 559:21, 629:13, 634:16
CROSS [3] - 560:1, 580:3, 609:1
Cross-Examination [37] - 525:4, 525:5, 525:5, 525:6, 525:10, 525:11, 525:11, 525:14, 525:15, 525:15, 525:16, 525:19, 525:19, 525:20, 526:4, 526:5, 526:5, 526:11, 526:12, 526:12, 526:15, 526:18, 526:19, 526:19, 526:20, 527:4, 527:5, 527:11, 527:12, 527:21, 527:22, 528:4, 528:5, 528:5, 528:14, 528:15, 528:15
cross-examination [3] - 536:24, 541:23, 629:13
CROSS-EXAMINATION [3] - 560:1, 580:3, 609:1
cross-examine [1] - 634:16
CROWNED [1] - 523:4
Crowned [63] - 523:17, 529:3, 534:4, 537:3, 537:4, 541:5, 541:25, 542:1, 544:3, 550:1, 554:1, 554:17, 556:13, 556:25, 557:11, 559:17, 559:23, 561:21, 576:23, 580:14, 580:23, 581:17, 582:2, 582:4, 582:11, 582:13, 586:22, 588:15, 589:10, 589:11, 589:21, 589:25, 592:12, 593:13, 593:15, 593:16, 593:19, 594:9, 594:13, 594:14, 594:20, 594:23, 595:3, 596:9, 596:10, 596:11, 596:15, 596:17, 597:13, 601:5, 603:25, 605:8, 606:13, 607:2, 608:1, 614:8, 622:2, 628:18, 631:5, 632:1, 632:19, 634:11, 636:16
CRR [1] - 523:24
CRW [11] - 529:19, 529:20, 529:21, 531:6, 531:7, 531:8, 531:9, 531:22, 532:7, 532:8, 532:9
Cultural [2] - 529:11, 531:22
cultural [3] - 536:13, 537:25, 591:14
cumulative [6] - 546:12, 546:20, 546:24, 547:15, 557:2, 594:17
current [3] - 587:14, 604:1, 607:23
Curriculum [2] - 529:23, 531:14
curtail [6] - 599:16, 600:18, 600:22, 607:14, 607:20, 622:15
curtailing [2] - 557:15, 623:6
curtailment [2] - 599:12, 607:4
curve [1] - 633:9

D

D221 [1] - 561:4
D221-NP [1] - 561:5
daily [5] - 597:14,

597:16, 598:9, 622:7, 626:16
Dakota [27] - 523:25, 524:4, 529:6, 534:18, 539:20, 547:1, 548:20, 550:20, 553:4, 558:11, 559:8, 564:12, 564:19, 572:11, 583:17, 584:11, 585:20, 594:15, 595:5, 596:10, 596:11, 596:15, 596:17, 603:20, 607:24, 640:7, 640:13
DAKOTA [2] - 523:2, 640:1
damage [5] - 611:18, 612:10, 612:21, 616:25, 617:2
damaged [1] - 616:22
danger [1] - 613:2
DARREN [1] - 528:13
Darren [4] - 533:12, 533:12, 550:12, 550:18
Daryl [3] - 529:15, 529:15, 530:22
DARYL [1] - 525:9
dash [2] - 561:23, 563:5
data [16] - 540:6, 547:8, 547:10, 547:20, 582:14, 582:15, 583:1, 583:3, 583:4, 612:13, 613:18, 625:12, 626:7, 626:10, 626:15, 626:23
Data [7] - 562:13, 562:21, 563:4, 563:9, 580:18, 580:20, 582:11
database [1] - 625:15
date [2] - 604:3, 636:1
Dated [1] - 640:13
Dates [1] - 529:4
David [2] - 533:14, 533:15
DAVID [2] - 527:20, 528:3
day-to-day [1] - 625:11
daycare [1] - 591:16
daylight [2] - 599:5, 599:14
days [8] - 543:7, 580:12, 601:23, 604:2, 604:7, 604:14, 626:6, 626:23
days' [1] - 543:9
dBA [16] - 561:11, 575:17, 575:20, 577:11, 578:1, 578:2, 593:7, 593:8, 593:17, 594:1, 594:3, 594:4, 594:5, 624:6
de [1] - 523:14
death [2] - 615:12, 616:17
debris [1] - 585:16
December [1] - 551:15
decide [3] - 599:15, 605:24, 606:20
decided [1] - 585:10
decides [1] - 588:7
decision [5] - 568:22, 568:23, 573:11, 635:22, 636:1
decisions [1] - 569:15
decommission [6] - 585:5, 585:6, 609:16, 609:17, 609:22, 610:10
Decommissioning [1] - 529:11
decommissioning [15] - 558:5, 558:9, 584:2, 584:7, 584:16, 584:18, 584:21, 609:5, 609:6, 609:9, 610:5, 610:9, 610:14, 611:2, 611:10
defer [2] - 568:19, 621:5
deferral [1] - 531:4
deferred [1] - 573:25
defers [1] - 568:5
defined [1] - 623:25
defining [1] - 551:22
definitely [2] - 615:6, 623:22
delighted [1] - 534:23
delve [2] - 574:23, 575:1
dent [1] - 612:5
deny [2] - 620:8, 634:13
department [3] - 540:1, 542:21, 548:25
Department [13] - 548:2, 552:3, 564:12, 564:19, 565:7, 565:9, 565:14, 566:11, 566:14, 566:24, 576:11, 576:12, 576:16
departments [1] - 547:22
depended [1] - 610:13
depicting [2] - 531:3, 595:12
depreciation [1] - 610:8
depth [1] - 585:15
derived [1] - 599:3
Des [1] - 576:7
description [1] - 551:23
deserves [1] - 602:6
design [5] - 575:16, 575:19, 587:21, 593:7, 593:17
designated [1] - 586:1
details [1] - 585:8
detected [1] - 613:15
Detection [1] - 558:17
determine [3] - 586:10, 627:13, 635:24
determined [4] - 569:25, 570:13, 590:18, 627:15
DEUEL [1] - 523:6
Deuel [7] - 531:6, 531:7, 532:3, 534:5, 594:13, 605:5, 608:15
devastating [1] - 611:14
develop [3] - 554:2, 554:6, 579:16
developed [3] - 570:1, 571:8, 579:15
developer [3] - 540:23, 549:18, 623:5
developers [2] - 541:16, 587:18
developing [2] - 595:17, 621:22
development [6] - 540:2, 540:25, 543:2, 546:25, 623:10, 624:3
devices [1] - 630:6
Devices [2] - 556:11, 556:17
DH-1 [1] - 529:15
DH-2 [1] - 529:16
DH-S-1 [1] - 530:23
DH-S-2 [1] - 531:3
DH-S-3 [1] - 531:4
difference [1] - 561:8
different [11] - 540:4, 542:24, 559:11, 563:17, 589:16, 589:24, 592:14, 594:22, 605:22, 633:14
difficult [2] - 547:7, 594:21
direct [4] - 534:7, 551:14, 553:17, 553:19
Direct [33] - 525:4, 525:10, 525:14, 525:18, 526:4, 526:6, 526:11, 526:15, 526:18, 527:4, 527:11, 527:14, 527:17, 527:21, 528:4, 528:8, 528:11, 528:14, 529:12, 529:12, 529:13, 529:14, 529:15, 529:16, 535:13, 536:8, 540:12, 540:17, 551:14, 552:23, 580:9, 592:8, 611:15
DIRECT [3] - 534:12, 539:4, 550:14
directly [1] - 557:10
disagree [1] - 578:16
disagreement [1] - 615:6
disarmed [1] - 548:9
discovery [7] - 552:24, 561:21, 561:24, 597:15, 597:18, 597:21, 598:3
discuss [4] - 576:15, 596:9, 596:19, 597:23
discussed [6] - 541:2, 549:14, 588:9, 597:18, 629:5, 633:10
discusses [1] - 564:11
discussing [1] - 598:5
discussion [4] - 569:10, 574:19, 597:25, 606:24
Discussion [1] - 579:22
discussions [4] - 547:6, 547:18, 571:10, 589:10
disposal [2] - 583:19, 583:25
dispose [2] - 584:22, 585:6
disposed [2] - 584:20, 585:13
distance [6] - 546:11, 551:19, 552:2, 561:8, 568:8, 613:9
distances [6] - 567:9, 587:16, 606:3, 606:21, 613:7, 618:16
distinguished [1] - 575:19
Distress [1] - 530:8
distributed [1] - 613:23
Disturbance [1] - 530:7
disturbed [1] - 604:11
divide [1] - 610:10
DK-2 [2] - 576:1, 576:20
DK-3 [3] - 564:13, 564:15, 564:22
DK2 [1] - 563:2
DO [1] - 640:8
Docket [1] - 534:3
docket [18] - 535:5, 539:12, 541:2, 541:5, 541:7, 554:9, 560:9, 565:4, 569:20, 570:1, 582:14, 583:1, 593:21, 610:15, 611:12, 625:4, 630:17, 638:8
dockets [2] - 597:20, 611:12
doctors [1] - 573:21
document [21] - 535:10, 540:7, 540:11, 551:7, 551:11, 551:13, 551:17, 553:20, 553:22, 553:24, 567:15, 574:9, 575:2, 575:9, 575:10, 582:1, 595:18, 595:21, 603:8, 612:20, 614:19
documentation [1] - 611:24
documented [3] - 611:18, 611:20, 611:21
documents [4] - 540:4, 562:4, 584:2, 596:8
dog [1] - 634:6

done [14] - 547:12, 547:14, 547:16, 562:12, 568:17, 572:9, 574:20, 577:20, 590:20, 605:8, 607:5, 613:2, 631:15, 635:12
doors [1] - 620:24
down [16] - 538:23, 543:10, 550:10, 557:10, 557:12, 589:1, 594:8, 602:3, 609:20, 613:16, 615:16, 617:7, 620:1, 624:7, 625:18, 634:20
Dr [4] - 576:7, 576:9, 576:15, 583:15
DR [6] - 532:23, 533:3, 533:4, 533:5, 533:9, 562:24
DR(4 [1] - 533:6
drafted [4] - 575:15, 588:21, 588:23, 620:4
drawing [3] - 535:7, 540:7, 551:6
drink [1] - 580:6
driving [1] - 612:22
Dropped [2] - 529:20, 532:5
due [11] - 549:5, 589:15, 590:19, 602:6, 602:13, 608:9, 608:10, 608:13, 612:10, 635:20, 636:1
duly [1] - 640:8
duly-appointed [1] - 640:8
duration [3] - 568:15, 572:16, 599:5
during [15] - 542:25, 566:19, 573:11, 580:22, 591:18, 596:2, 600:4, 605:9, 606:13, 607:4, 607:14, 613:12, 633:4, 633:5, 637:17
duties [1] - 550:24

E

E(5 [1] - 557:13
e-mail [5] - 554:8, 597:19, 633:8, 633:24, 634:14
e-mails [3] - 598:7, 633:21, 633:25
eagle [1] - 541:20
early [2] - 543:23, 624:4
Easement [1] - 532:16
easier [2] - 562:5, 598:6
East [1] - 524:3
echo [1] - 634:11
Ecosystems [1] - 541:9
edge [1] - 593:13
edits [1] - 556:24
Edwards [11] - 523:23, 525:16, 526:5, 526:9, 526:12, 526:20, 527:12, 527:21, 527:23, 528:4, 528:6
EDWARDS [3] - 631:24, 634:19, 635:4
Effect [1] - 529:10
effects [1] - 560:19
Effects [5] - 530:4, 530:6, 530:15, 530:16, 531:15
effort [2] - 541:12, 576:9
efforts [1] - 592:14
EHLEBRACHT [1] - 527:10
Ehlebracht [1] - 532:16
eight [1] - 587:7
either [5] - 537:14, 560:15, 572:18, 631:20, 631:22
EL19-027 [2] - 523:4, 534:3
Electric [1] - 556:2
electrician [1] - 587:1
electrophysiologist [1] - 576:8
Elicit [2] - 530:19, 531:19
Emissions [1] - 530:22
employed [3] - 534:17, 539:19, 539:20
employment [2] - 548:4, 548:6
enacted [1] - 579:14
end [3] - 584:4, 604:6, 611:3
endangered [1] - 549:1
endurance [2] - 569:23, 571:2
endure [1] - 602:21
energy [14] - 534:4, 540:2, 540:24, 547:17, 551:2, 553:3, 553:5, 554:4, 566:21, 574:14, 579:18, 609:11, 610:4, 624:2
ENERGY [1] - 523:5
enforce [1] - 585:21
engineering [3] - 587:21, 609:12, 609:18
engineers [2] - 606:11
English [1] - 591:4
enhanced [1] - 633:9
enjoyed [1] - 617:12
enroll [1] - 542:21
ensure [1] - 611:4
entail [2] - 568:10, 583:24
entered [2] - 631:20, 633:5
entertain [1] - 600:25
entertained [1] - 577:20
entire [4] - 580:14, 609:23, 625:13, 637:24
entitled [2] - 524:2, 640:10
entries [3] - 560:18, 561:2, 561:6
environmental [2] - 539:22, 591:14
envision [3] - 584:3, 600:4, 600:11
EPCO [2] - 593:14, 594:1
Epilepsy [2] - 530:17, 530:18
equations [1] - 618:23
erecting [1] - 606:4
Eric [3] - 621:1, 621:4, 627:18
escrow [5] - 558:12, 609:7, 610:1, 610:15, 610:18
essentially [2] - 541:14, 559:4
establish [3] - 565:21, 609:7, 630:3
estimate [2] - 609:15, 610:14
estimated [1] - 609:16
estimates [6] - 609:9, 609:10, 609:12, 609:18, 610:5, 611:2
et [2] - 541:20, 583:2
European [1] - 626:21
evenly [1] - 613:23
eventually [1] - 547:10
Evidence [1] - 530:21
evidence [6] - 565:21, 566:9, 573:3, 581:7, 600:14, 600:20
evidentiary [4] - 573:12, 621:22, 635:13, 635:15
exactly [1] - 586:10
examination [5] - 536:24, 541:23, 562:10, 570:16, 629:13
Examination [68] - 525:4, 525:4, 525:5, 525:5, 525:6, 525:7, 525:7, 525:8, 525:10, 525:10, 525:11, 525:11, 525:14, 525:14, 525:15, 525:15, 525:16, 525:18, 525:19, 525:19, 525:20, 525:21, 526:4, 526:4, 526:5, 526:5, 526:6, 526:7, 526:7, 526:8, 526:8, 526:9, 526:11, 526:11, 526:12, 526:12, 526:15, 526:15, 526:18, 526:18, 526:19, 526:19, 526:20, 527:4, 527:4, 527:5, 527:11, 527:11, 527:12, 527:14, 527:17, 527:21, 527:21, 527:22, 527:23, 527:23, 528:4, 528:4, 528:5, 528:5, 528:6, 528:8, 528:11, 528:12, 528:14, 528:14, 528:15, 528:15
EXAMINATION [7] - 534:12, 539:4, 549:11, 550:14, 560:1, 580:3, 609:1
examine [1] - 634:16
examined [1] - 570:12
examiner [1] - 638:8
Examiner [3] - 562:17, 629:9, 637:19
examines [1] - 562:4
example [4] - 541:19, 549:17, 587:25, 600:6
exceed [3] - 598:18, 598:20, 619:3
exceeded [1] - 599:9
except [1] - 618:2
exception [1] - 629:5
exchange [1] - 581:12
excuse [5] - 537:22, 545:3, 547:12, 557:17, 580:6
excused [3] - 538:25, 550:11, 628:10
exemption [2] - 620:11, 627:8
exhibit [8] - 554:25, 557:6, 608:18, 629:1, 629:10, 631:20, 633:4, 635:11
Exhibit [63] - 529:13, 529:14, 529:15, 529:16, 529:16, 529:17, 529:17, 529:18, 529:23, 530:3, 530:4, 530:5, 530:7, 530:8, 530:10, 530:12, 530:13, 530:14, 530:16, 530:17, 530:18, 530:19, 530:20, 530:21, 530:23, 531:3, 531:4, 531:6, 531:7, 531:8, 531:9, 531:13, 531:14, 531:14, 531:15, 531:15, 531:17, 531:18, 531:19, 531:21, 531:23, 532:3, 532:4, 532:4, 532:5, 532:7, 532:8, 532:9, 551:8, 554:16, 560:5, 560:8, 560:11, 560:24, 563:3, 563:6, 563:22, 564:6, 564:13, 571:1, 576:20, 618:1, 632:21
EXHIBITS [8] - 529:2, 530:2, 531:2, 532:2, 532:15, 532:20, 533:2, 533:11
exhibits [11] - 619:1, 628:24, 629:7, 629:23, 630:16, 631:3, 631:25, 632:5, 632:18, 633:5
Exhibits [5] - 533:12, 533:12, 533:13, 533:14, 533:14
expand [1] - 621:18
expanding [1] - 549:5
expect [8] - 567:8, 582:5, 601:25,

606:2, 614:8, 623:6, 625:22, 627:6
expectation [1] - 558:20
expected [1] - 553:14
expects [1] - 587:18
experience [2] - 586:12, 587:24
experiencing [2] - 600:15, 602:9
expert [14] - 548:24, 568:3, 570:22, 571:9, 572:25, 573:15, 573:16, 573:18, 593:10, 593:20, 596:13, 597:5, 599:1, 621:21
expertise [4] - 583:23, 584:25, 587:23, 588:3
experts [7] - 565:12, 567:17, 570:2, 570:7, 573:20, 574:11, 588:4
explain [10] - 534:20, 534:25, 539:24, 546:3, 550:24, 551:13, 553:24, 561:17, 569:1, 575:1
explained [5] - 553:6, 553:7, 571:7, 571:8, 625:7
explaining [1] - 589:4
explanation [2] - 546:6, 602:22
Explanation [1] - 531:4
Exposure [2] - 530:3, 531:14
expressed [1] - 611:8
extended [2] - 604:19, 638:9

F

FAA [6] - 619:24, 619:25, 620:8, 626:25, 627:1, 627:3
face [2] - 598:6
facilitate [5] - 557:15, 598:6, 615:7, 622:22, 623:2
facilities [8] - 535:25, 566:21, 583:25, 584:5, 584:17, 584:19, 595:10, 607:12
facility [15] - 534:5, 543:2, 551:3, 553:3, 553:5, 554:5, 559:5, 579:18, 585:5, 585:6, 585:20, 587:6, 587:19, 606:5, 609:11
FACILITY [1] - 523:5
Fact [1] - 635:17
fact [8] - 544:21, 546:21, 548:20, 555:19, 573:2, 581:8, 604:5, 619:25
factor [2] - 594:2, 610:9
facts [4] - 581:6, 602:8, 629:20, 630:20
factual [3] - 600:14, 600:20, 602:14
failure [1] - 559:6
fair [7] - 537:13, 566:13, 571:4, 588:5, 588:16, 591:20, 637:20
fall [3] - 604:9, 607:6, 611:5
Falls [1] - 586:23
falls [1] - 564:2
familiar [1] - 631:9
family [7] - 590:10, 601:7, 601:25, 602:19, 603:7, 607:25, 626:2
far [2] - 536:17, 594:16
Farm [2] - 532:16, 532:22
farm [7] - 559:17, 567:21, 569:7, 574:21, 574:22, 577:6, 589:19
farms [2] - 584:13, 608:9
Farms [1] - 531:17
father [1] - 575:15
favor [1] - 585:23
February [4] - 523:8, 524:4, 640:11, 640:14
Federal [1] - 556:12
fee [1] - 580:24
feedback [1] - 568:7
feet [5] - 545:22, 585:15, 587:7, 612:24, 620:24
felt [4] - 553:1, 556:3, 556:14, 573:25
few [2] - 557:7, 618:9
fiberglass [1] - 585:3
FIEGEN [24] - 523:12, 537:16, 538:8, 542:10, 542:12, 543:13, 543:16, 543:24, 544:7, 620:22, 621:6, 621:9, 621:24, 622:25, 623:9, 624:8, 624:19, 625:7, 625:25, 626:6, 626:18, 627:17, 627:21, 639:1
Fiegen [5] - 537:15, 542:9, 549:13, 638:25, 639:1
field [1] - 565:13
Field [1] - 530:5
fight [1] - 634:6
figure [3] - 560:20, 599:8, 599:25
Figures [1] - 529:3
file [7] - 555:14, 556:15, 614:16, 629:23, 631:3, 632:17, 636:4
filed [8] - 535:4, 553:1, 556:18, 575:12, 611:16, 615:24, 630:24, 631:13
files [1] - 625:15
filing [6] - 555:18, 587:14, 587:16, 619:12, 636:9, 636:16
filings [1] - 555:15
filtered [1] - 570:13
final [7] - 596:3, 604:10, 604:18, 605:9, 627:19, 636:1, 636:21
Final [2] - 531:6, 531:7
finally [2] - 553:19, 620:23
financial [1] - 582:1
financials [1] - 610:20
Findings [1] - 635:17
findings [1] - 635:19
fine [2] - 589:6, 628:2
fire [1] - 545:22
first [16] - 538:4, 569:14, 570:16, 575:2, 591:7, 596:22, 603:6, 610:15, 614:17, 621:10, 624:4, 624:22, 627:6, 628:25, 632:1, 633:1
First [1] - 533:9
Fish [11] - 539:20, 540:22, 542:20, 543:8, 544:14, 544:18, 545:3, 545:6, 545:21, 545:23, 607:11
five [5] - 545:25, 628:1, 628:4, 636:8, 637:8
fix [1] - 558:25
flicker [51] - 561:12, 563:20, 564:1, 568:4, 568:15, 568:20, 568:24, 569:8, 569:12, 569:13, 569:23, 570:23, 571:2, 572:6, 572:12, 572:16, 572:21, 573:23, 577:11, 577:25, 578:3, 578:5, 596:20, 596:24, 597:8, 597:14, 598:10, 598:18, 599:4, 599:19, 599:22, 599:23, 600:7, 600:16, 601:2, 601:4, 601:25, 602:21, 603:1, 603:8, 618:11, 618:21, 619:1, 624:11, 625:11, 625:20, 626:1, 626:13, 626:19, 630:7, 637:24
Flicker [6] - 529:9, 530:18, 530:20, 531:7, 531:9, 532:8
flow [1] - 582:7
folks [2] - 548:12, 638:19
following [3] - 524:1, 593:5, 605:3
follows [1] - 564:18
footprint [1] - 544:3
footprints [1] - 544:6
FOR [1] - 523:5
forced [1] - 558:22
forgot [1] - 589:3
forgotten [1] - 632:15
formal [7] - 564:20, 564:25, 576:13, 597:21, 598:7, 601:17, 601:19
formally [1] - 565:10
forth [6] - 541:12, 568:8, 574:24, 587:17, 604:6, 617:15
forward [3] - 603:14, 628:18, 632:10
Foss [1] - 524:3
foundation [7] - 595:8, 605:15, 631:8, 631:16, 633:20, 633:22, 634:15
foundations [2] - 585:16, 587:20
four [1] - 585:15
frame [1] - 595:1
frames [1] - 583:2
framing [1] - 587:2
Frequency [6] - 529:18, 530:11, 530:12, 531:16, 531:18, 532:21
front [3] - 540:9, 551:9, 571:22
fruition [1] - 577:25
funding [7] - 558:5, 581:17, 582:10, 584:18, 610:22, 610:23, 611:4
funds [2] - 580:13, 581:23
future [8] - 545:3, 545:7, 545:22, 546:1, 592:20, 592:24, 593:1, 622:23

G

Game [10] - 539:20, 540:22, 542:19, 543:8, 544:14, 544:18, 545:3, 545:6, 545:21, 545:23
garnered [1] - 619:15
GARRY [1] - 527:10
Garry [1] - 532:16
GARY [1] - 523:11
gas [1] - 551:4
gather [5] - 552:25, 567:16, 567:20, 574:7, 578:14
gavel [2] - 638:4, 638:13
GE [4] - 531:11, 633:9, 633:21
generally [4] - 541:15, 565:20, 630:20, 631:24
generate [2] - 552:4, 595:25
Generator [1] - 530:23
genesis [1] - 570:11
Germany [2] - 570:17, 626:21
GF&P [2] - 558:1, 607:11
girl [1] - 605:10

GIS [1] - 595:19
given [9] - 552:8, 560:19, 577:7, 579:13, 617:11, 619:24, 624:25, 625:20, 625:22
goal [4] - 575:16, 575:19, 593:7, 593:17
Goodwin [1] - 576:3
Gore [1] - 630:14
govern [1] - 583:19
governing [2] - 569:13, 572:12
GPS [1] - 541:10
Grand [1] - 531:6
GRANT [1] - 523:5
Grant [5] - 531:7, 532:4, 534:5, 605:5, 634:22
granting [1] - 585:23
granular [1] - 545:5
graphical [1] - 625:17
grassland [4] - 541:17, 546:10, 546:22, 547:2
great [2] - 544:7, 545:24
greater [1] - 546:17
Greber [3] - 532:18, 560:19, 561:2
green [1] - 563:12
Greg [1] - 523:14
ground [6] - 538:5, 586:5, 586:24, 587:7, 606:4
grounds [1] - 591:22
grouse [4] - 541:3, 541:7, 541:10, 544:1
guarantee [2] - 607:25, 608:6
guarantees [1] - 608:4
guess [10] - 549:1, 562:15, 577:21, 582:12, 593:14, 603:5, 622:4, 626:4, 636:10, 638:20
guessing [1] - 612:9
guidance [4] - 568:13, 572:15, 578:23, 579:17
guide [1] - 574:8
guideline [1] - 609:7
Guidelines [1] - 530:11
guidelines [4] - 543:22, 567:3, 567:8, 568:10
guiding [1] - 568:1
guys [3] - 615:5, 617:6, 628:16

H

habitat [2] - 541:17, 546:11
Habitat [1] - 529:6
habitats [1] - 540:25
HALEY [1] - 526:3
Haley [6] - 529:12, 531:5, 532:6, 563:15, 597:11, 625:7
Haley's [1] - 625:22
half [2] - 566:20, 596:25
hammer [1] - 606:7
hand [3] - 536:16, 638:12
handful [1] - 537:21
handle [1] - 617:1
handled [2] - 620:6, 620:8
handling [1] - 568:16
handy [1] - 581:22
hang [1] - 581:13
Hanson [6] - 538:10, 544:9, 616:9, 638:4, 638:12, 639:2
HANSON [35] - 523:11, 538:11, 538:13, 538:18, 544:10, 544:12, 544:17, 544:20, 544:25, 545:10, 545:13, 545:17, 545:20, 546:3, 546:5, 546:8, 547:9, 547:22, 548:2, 548:7, 557:17, 557:21, 616:10, 616:12, 616:14, 616:22, 617:7, 617:20, 617:25, 618:4, 618:6, 638:14, 638:23, 638:25, 639:2
Hanson's [1] - 606:24
happy [1] - 581:18
hard [1] - 626:7
HART [1] - 525:9
Hart [4] - 529:15, 529:15, 530:22, 581:12
Hart's [2] - 580:19, 580:22
Harvest [2] - 594:13, 608:15
haul [1] - 585:16
head [7] - 548:2, 549:2, 569:9, 571:14, 622:20, 624:18, 629:3
head-butting [1] - 622:20
heading [2] - 592:8, 593:5
health [5] - 564:21, 565:11, 565:12, 565:22, 573:20
Health [16] - 530:9, 530:10, 530:16, 531:15, 531:15, 564:12, 564:19, 565:7, 565:9, 565:14, 566:12, 566:14, 566:24, 576:11, 576:12, 576:16
Health-Based [1] - 530:10
hear [5] - 549:14, 568:7, 580:12, 591:7, 632:8
heard [9] - 558:6, 563:16, 567:10, 567:12, 577:3, 584:22, 585:1, 625:8, 627:24
hearing [11] - 534:2, 573:12, 579:25, 609:11, 618:5, 635:15, 637:17, 638:2, 638:7, 639:5
Hearing [2] - 529:22, 562:17
hearings [1] - 570:4
held [1] - 524:2
helicopter [1] - 589:15
help [7] - 562:21, 567:17, 571:25, 578:22, 586:6, 602:18, 629:24
helped [1] - 616:5
helpful [3] - 544:2, 544:8, 596:6
HEREBY [1] - 640:8
Hessler [21] - 532:7, 532:8, 532:9, 556:24, 568:2, 574:20, 574:23, 574:24, 575:4, 575:6, 575:21, 593:10, 593:17, 596:13, 597:5, 624:20, 629:14, 631:8, 631:9, 631:12, 631:16
HESSLER [1] - 528:3
Hessler's [5] - 557:5, 557:23, 568:12, 593:23, 624:22
HH [2] - 531:11, 531:11
higher [2] - 563:25, 618:21
Highway [2] - 556:12, 590:3
highway [3] - 590:14, 612:19, 612:24
Hilary [4] - 533:13, 539:1, 539:11, 539:18
HILARY [1] - 528:10
hire [1] - 588:4
hired [2] - 553:6, 573:1
historic [2] - 538:15, 553:10
Historical [3] - 531:21, 531:23, 534:18
historical [1] - 590:12
history [1] - 553:11
hit [2] - 611:3, 612:5
hits [3] - 601:15, 612:3
hold [2] - 545:21, 607:16
hole [2] - 587:7, 606:4
home [3] - 591:17, 598:22, 626:2
homeowner [3] - 598:24, 599:17, 601:3
Homme [2] - 573:24, 574:6
hope [1] - 548:5
hoping [1] - 611:5
hour [3] - 568:21, 570:6, 637:8
hours [35] - 570:6, 570:10, 570:11, 571:3, 572:22, 573:6, 573:10, 573:13, 573:16, 577:10, 578:1, 578:3, 588:13, 596:23, 597:1, 597:8, 598:14, 598:18, 599:5, 599:9, 600:7, 600:15, 601:4, 601:16, 601:25, 602:9, 602:21, 603:1, 619:2, 619:4, 624:11, 625:4, 626:16, 637:23
house [5] - 563:13, 563:18, 564:3, 587:1
hub [1] - 591:18
Hueck [1] - 523:14
human [3] - 564:20, 565:11, 565:22
humble [1] - 629:22
hunters [3] - 543:8, 543:17, 543:18
hunting [4] - 542:19, 542:22, 542:25, 543:21
Hutchinson [1] - 574:6
hydrocarbon [1] - 551:5
hypothetical [1] - 618:11

I

I-1 [1] - 532:16
I-2 [1] - 532:16
I-3 [1] - 532:17
I-4 [1] - 532:17
I-5 [2] - 532:18, 576:3
I-6 [1] - 532:18
I-8 [2] - 576:22, 577:7
ice [13] - 611:17, 611:18, 612:2, 612:5, 612:6, 613:2, 613:5, 613:6, 613:10, 613:15, 613:22, 614:7, 616:17
icing [5] - 612:10, 612:14, 613:10, 613:12, 623:14
ID [2] - 531:8, 531:10
ideal [2] - 575:16, 575:19
identification [4] - 535:8, 540:8, 551:8, 553:21
identified [15] - 536:15, 537:21, 537:22, 553:10, 553:12, 553:14, 557:5, 557:24, 565:19, 577:8, 579:4, 584:7, 586:3, 594:16, 609:22
identifies [1] - 592:19
identify [12] - 535:10, 537:24, 538:5, 559:10, 586:7, 586:19, 587:14, 592:20, 596:13, 604:17, 619:18, 634:23
Identify [1] - 530:21
identifying [1] - 584:14
II [40] - 523:4, 523:17,

531:6, 531:7, 531:8, 531:9, 531:22, 534:4, 544:3, 554:1, 558:11, 561:21, 580:14, 580:23, 581:17, 582:3, 582:11, 582:13, 592:12, 593:13, 593:15, 593:16, 593:20, 594:14, 594:20, 594:23, 595:3, 596:9, 596:10, 596:11, 596:15, 596:17, 597:13, 601:5, 605:8, 607:2, 608:1, 614:9, 622:2
Il's [2] - 594:9, 606:13
Ill [1] - 523:9
imagine [1] - 600:6
imbalance [2] - 613:17, 613:19
immediate [1] - 600:5
immediately [1] - 602:4
impact [8] - 546:20, 557:2, 558:3, 577:8, 594:17, 608:8, 608:9, 608:13
Impact [2] - 530:7, 531:13
impacted [1] - 590:19
impacts [15] - 536:18, 536:20, 540:24, 541:3, 546:13, 546:24, 547:16, 553:14, 577:8, 577:15, 594:10, 603:18, 624:2, 624:7
impeachment [1] - 631:24
implement [1] - 599:6
implementation [1] - 608:6
implementing [1] - 555:15
important [3] - 595:8, 611:11, 625:1
impossible [1] - 618:20
impressive [1] - 538:8
IN [2] - 523:4, 523:5
inaccurate [1] - 618:22
incident [1] - 615:24
Incl [1] - 530:12
include [4] - 543:21, 592:21, 596:15, 625:2
included [4] - 555:25, 563:5, 594:1, 617:25
Including [1] - 531:16
income [1] - 582:6
incorporate [2] - 554:12, 556:25
incorporated [2] - 559:13, 559:18
incorporating [2] - 544:6, 567:3
incorrect [1] - 618:23
increase [1] - 613:9
increased [1] - 610:16
increases [1] - 549:6
indicate [2] - 567:2, 571:15
indicated [4] - 536:7, 570:22, 572:9, 636:9
indicates [1] - 598:17
indicating [1] - 593:25
indicating) [1] - 590:5
individual [14] - 555:16, 559:10, 586:20, 605:7, 605:24, 606:12, 607:20, 611:22, 611:23, 614:23, 615:1, 625:17, 625:18, 626:4
individual's [1] - 614:20
industry [4] - 547:17, 555:22, 556:6, 585:2
inferring [2] - 581:5, 581:6
inflation [1] - 610:17
influencing [1] - 625:19
informal [3] - 565:1, 565:4, 601:18
informally [3] - 565:10, 599:7, 599:24
Information [1] - 530:21
information [17] - 536:2, 552:25, 565:3, 575:9, 582:16, 595:16, 597:21, 602:15, 602:19, 605:16, 607:23, 612:16, 613:21, 614:12, 625:9, 625:24, 633:14
Infrasound [7] - 529:19, 530:11, 530:12, 531:16, 531:17, 531:18, 532:21
injury [1] - 615:12
Input [1] - 529:22
inquire [1] - 597:13
inquiring [1] - 576:23
inquiry [3] - 560:18, 571:4, 576:2
inspect [5] - 586:1, 587:2, 588:2, 588:3, 588:4
inspected [1] - 587:2
inspections [2] - 585:25, 586:25
Installations [1] - 530:10
instances [1] - 607:22
instead [4] - 581:9, 621:2, 625:10, 625:13
insufficient [1] - 565:21
insurance [11] - 614:2, 614:3, 614:6, 614:9, 614:10, 614:11, 615:20, 615:22, 616:18, 616:24, 617:1
insured [1] - 614:14
insurer [1] - 617:4
integral [1] - 630:2
intend [1] - 628:20
intended [1] - 587:3
Interconnection [1] - 530:23
interest [1] - 621:23
interested [2] - 555:10, 624:14
interject [2] - 562:20, 592:5
internal [1] - 547:6
internet [2] - 630:12, 630:14
interpret [1] - 621:15
Intervenor [9] - 532:9, 532:12, 533:7, 533:7, 533:8, 533:8, 533:9, 554:11, 559:3
Intervenors [8] - 523:19, 554:8, 556:19, 566:10, 576:2, 578:13, 580:15, 583:3
intervenors [1] - 578:4
Intervenors' [1] - 533:5
INTERVENORS' [2] - 527:9, 532:15
introduce [1] - 550:17
invented [1] - 630:14
Inventory [1] - 531:22
investigation [1] - 551:22
involved [8] - 534:21, 539:25, 572:23, 578:6, 615:4, 623:18, 638:9
Iowa [1] - 576:7
IR [1] - 532:12
ironically [1] - 548:18
issue [11] - 554:4, 558:24, 568:5, 568:16, 586:7, 586:8, 600:1, 601:6, 612:21, 615:2, 624:25
issues [12] - 543:1, 566:25, 567:2, 568:12, 573:25, 574:21, 585:19, 586:12, 586:18, 588:1, 608:5, 627:7
item [1] - 563:7
itemize [1] - 619:14
items [4] - 571:9, 629:12, 630:2, 630:10
itself [4] - 565:8, 565:9, 587:6, 589:19

J

January [4] - 536:2, 560:9, 567:11, 629:17
Jay [3] - 529:12, 531:5, 532:6
JAY [1] - 526:3
JH-R-1 [1] - 532:7
JH-R-2 [1] - 532:8
JH-R-3 [1] - 532:9
JH-S-1 [1] - 531:6
JH-S-2 [1] - 531:7
JH-S-3 [1] - 531:8
JH-S-4 [1] - 531:9
JHR-3 [1] - 560:8
job [5] - 539:21, 539:22, 550:22, 550:24, 638:18
Joe [1] - 524:3
Johnson [2] - 576:7, 576:9
Johnson's [1] - 576:15
jointly [3] - 553:25, 554:13, 591:11
joke [1] - 591:4
Jon [1] - 621:2
journeys [1] - 638:19
judicial [4] - 629:11, 629:19, 630:19, 630:23
jumble [1] - 595:2
jurisdiction [1] - 630:21

K

Kaitlyn [1] - 523:15
karen [1] - 523:13
Kearney [23] - 533:12, 533:12, 550:12, 550:16, 550:18, 560:3, 563:21, 564:5, 571:1, 571:7, 571:13, 571:16, 571:23, 576:19, 580:5, 581:14, 582:24, 615:23, 616:10, 618:9, 620:22, 626:19, 627:17
KEARNEY [1] - 528:13
Kearney's [1] - 570:21
keep [5] - 581:9, 599:18, 604:10, 604:14, 612:22
KELO [1] - 548:18
kidding [1] - 592:3
kind [13] - 553:11, 553:17, 570:2, 570:13, 590:4, 595:2, 600:3, 601:8, 601:17, 602:24, 612:1, 622:4, 622:6
knowing [2] - 546:20, 548:9
knowledge [6] - 547:16, 547:25, 552:15, 565:1, 584:25, 615:24
knowledgeable [1] - 572:18
known [3] - 618:16, 630:21
knows [1] - 631:4
Kranz [1] - 532:17
Kranzburg [4] - 551:20, 551:24, 552:3, 604:25
Kristen [1] - 523:23
Kristi [2] - 554:11, 559:3
KRISTIE [1] - 523:12

L

lack [2] - 634:15
laid [2] - 631:8, 633:20
LAMPETER [1] - 526:10
Lampeter [3] - 529:16, 529:17, 532:10

land [2] - 590:19, 604:11
Land [2] - 531:9, 532:4
landfill [6] - 584:8, 584:23, 585:9, 585:13, 585:17
landfills [4] - 583:16, 583:20, 583:21, 584:24
landowner [3] - 591:8, 606:14, 611:6
landowners [2] - 542:21, 604:12
lands [5] - 542:19, 542:20, 542:21, 583:25, 591:13
language [3] - 558:19, 588:21, 620:16
Laretta [1] - 532:17
large [1] - 537:24
last [7] - 534:6, 548:18, 549:2, 571:18, 580:16, 594:19, 630:12
late [5] - 629:23, 630:16, 630:24, 631:3, 632:17
Law [2] - 553:4, 635:18
law [6] - 568:9, 572:13, 574:12, 583:17, 620:5, 627:15
Lawrence [3] - 533:15, 533:16, 608:4
LAWRENCE [1] - 527:20
Lawrence's [1] - 608:7
laws [8] - 559:6, 579:13, 583:22, 583:24, 605:23, 621:15, 621:17, 621:19
lawyer [3] - 578:9, 579:2, 616:21
lawyers [2] - 572:2, 581:8
lay [1] - 595:8
laydown [1] - 535:25
layout [3] - 595:13, 604:23, 605:4
layouts [1] - 587:14
lead [2] - 559:7, 559:12
learn [1] - 607:21
learned [1] - 624:1
Lease [1] - 532:16
leased [2] - 542:19, 591:13
least [5] - 548:8, 585:19, 617:11, 621:5, 629:22
leave [1] - 575:4
left [1] - 576:19
legal [6] - 551:23, 578:7, 578:17, 579:5, 582:20, 632:4
legally [1] - 622:5
legislature [3] - 572:15, 579:12, 579:14
lek [1] - 544:1
leks [3] - 541:7, 544:21, 545:23
length [1] - 599:14
less [4] - 612:24, 619:2, 623:15, 636:15
Letter [6] - 529:19, 529:20, 529:21, 531:21, 531:23
letter [2] - 565:14, 566:24
Level [3] - 529:8, 531:8, 531:17
level [2] - 568:7, 626:13
levels [2] - 563:20, 594:18
liability [5] - 614:4, 614:6, 614:9, 614:10, 614:17
liaison [12] - 586:3, 586:13, 586:15, 586:23, 588:24, 589:11, 603:24, 603:25, 604:1, 604:7, 604:16, 604:17
license [1] - 583:24
licensed [3] - 583:15, 584:8, 584:23
Life [1] - 530:13
life [3] - 584:4, 610:11, 611:3
light [8] - 580:14, 582:9, 585:19, 600:10, 601:1, 602:17, 602:18
Lighting [1] - 558:18
lightly [1] - 624:9
likely [4] - 563:5, 604:2, 612:15
limit [24] - 568:3, 568:20, 568:21, 570:6, 570:8, 572:21, 573:23, 575:17, 575:20, 577:15, 577:23, 588:10, 588:12, 588:22, 594:4, 594:6, 596:24, 599:16, 624:6, 624:15, 626:16, 636:8, 636:12, 636:13
limited [2] - 582:10, 598:9
limiting [1] - 588:18
limits [4] - 567:9, 569:16, 577:9, 597:8
line [12] - 551:3, 551:19, 552:7, 564:8, 566:23, 589:15, 592:9, 594:8, 604:22, 606:16, 615:16, 617:8
lines [4] - 535:24, 556:1, 597:5, 611:17
List [1] - 532:5
list [7] - 548:21, 549:1, 596:22, 614:11, 628:25, 629:10, 634:19
listed [3] - 614:6, 628:24, 634:15
listen [1] - 632:14
listening [1] - 617:13
Literature [1] - 530:16
literature [1] - 547:14
live [1] - 589:24
lives [2] - 586:23, 601:22
living [1] - 614:25
Living [1] - 530:14
LLC [2] - 523:4, 534:4
LLC's [2] - 529:19, 529:20
local [3] - 568:7, 569:4, 569:7
location [4] - 591:6, 591:12, 605:7, 606:12
locations [6] - 535:22, 541:10, 586:1, 595:17, 596:1, 596:16
Locations [1] - 532:5
long-term [4] - 545:18, 547:24, 548:3, 548:5
look [23] - 545:5, 545:18, 547:15, 551:24, 564:15, 568:17, 569:12, 569:14, 569:18, 569:19, 585:2, 587:6, 590:4, 595:20, 599:10, 606:16, 612:11, 612:13, 621:14, 621:15, 621:21, 624:20, 632:10
looked [5] - 567:13, 575:10, 584:2, 590:11, 596:16
looking [4] - 547:21, 587:11, 590:12, 619:21
looks [2] - 569:17, 636:4
lose [1] - 603:21
loss [7] - 580:16, 580:21, 580:25, 581:25, 582:6, 607:22, 608:17
lost [1] - 603:16
Low [6] - 529:18, 530:11, 530:12, 531:16, 531:18, 532:21
low [1] - 593:12
Low-Frequency [2] - 530:12, 531:16

M

Madam [1] - 629:9
maiden [3] - 539:15, 539:17, 539:18
mail [5] - 554:8, 597:19, 633:8, 633:24, 634:14
mails [3] - 598:7, 633:21, 633:25
Main [1] - 523:25
maintenance [1] - 558:22
manager [4] - 614:24, 615:3, 615:9, 617:6
manner [1] - 559:11
Manual [2] - 556:10, 556:16
manual [1] - 556:11
map [7] - 543:18, 590:2, 590:3, 594:22, 594:23, 595:12, 595:25
Map [3] - 532:4, 532:13, 532:13
maps [2] - 594:19, 595:2
Maps [1] - 531:3
March [2] - 635:20
MARK [1] - 525:17
Mark [4] - 529:13, 529:13, 531:12, 532:11
marked [5] - 535:7, 540:8, 551:7, 553:21, 560:11
Market [1] - 531:13
marketplace [1] - 608:9
MaRous [2] - 531:12, 532:10
MAROUS [1] - 525:13
marvelous [1] - 638:18
Massachusetts [1] - 566:15
master [1] - 628:25
material [3] - 555:7, 559:15, 566:17
materially [2] - 559:11, 605:22
math [1] - 610:3
mathematic [1] - 618:23
matter [3] - 524:2, 534:3, 640:10
MATTER [1] - 523:4
matters [2] - 615:25, 638:5
Matthew [1] - 524:2
maximum [1] - 624:21
MCCOMSEY [1] - 640:5
McComsey [3] - 523:24, 640:17, 640:18
MCCUNNEY [1] - 526:14
McCunney [1] - 531:13
McPherson [1] - 532:22
mean [12] - 575:1, 579:5, 585:24, 601:1, 601:17, 602:12, 603:2, 614:24, 617:2, 617:8, 630:5, 637:1
meaning [1] - 564:19
meaningful [1] - 547:19
meant [1] - 615:20
measure [1] - 552:2
measured [1] - 606:17
measurement [1] - 602:16
Measurement [2] - 531:17, 532:21
Measures [2] - 530:4, 530:9
measures [1] - 600:17
mediation [1] - 623:2

mediator [1] - 622:4
medical [1] - 576:10
meet [2] - 593:16, 599:16
meeting [2] - 545:13, 635:21
meets [1] - 591:13
megawatt [2] - 592:13
megawatts [1] - 623:15
megs [2] - 592:25, 593:1
member [2] - 586:6, 627:11
memorialization [1] - 545:8
memorialize [1] - 544:23
memorialized [1] - 559:1
mentioned [3] - 544:20, 546:24, 596:24
mere [1] - 611:22
met [3] - 554:4, 587:16, 606:3
MET [1] - 535:24
Meteorological [2] - 530:19, 531:19
meteorological [1] - 613:18
meters [1] - 547:3
methods [1] - 547:15
Meyer [1] - 539:18
Michael [2] - 531:12, 532:10
MICHAEL [1] - 525:13
micrositing [3] - 596:4, 605:9, 606:13
middle [3] - 537:2, 583:10, 622:9
might [11] - 543:18, 560:21, 574:15, 593:22, 596:3, 596:20, 600:16, 600:18, 604:12, 613:19, 614:25
migration [2] - 607:5, 607:9
migratory [1] - 607:15
mile [3] - 547:3, 547:4
miles [2] - 596:18, 607:19
Miles [1] - 523:17
milestone [2] - 585:24, 586:25
million [1] - 609:22
mind [4] - 548:3, 563:5, 569:1, 617:8
minimize [1] - 540:24
minimized [1] - 567:2
Minnesota [4] - 566:15, 575:12, 624:15, 629:15
minute [4] - 561:8, 598:13, 599:18, 603:8
minutes [11] - 624:13, 624:14, 624:21, 625:1, 625:2, 626:1, 626:15, 628:1, 636:8, 637:8
mischaracterized [1] - 593:22
misspoke [1] - 536:25
mitigate [4] - 536:20, 540:24, 577:14
mitigating [3] - 577:7, 600:17
Mix [2] - 569:6, 574:6
MM-S-1 [1] - 531:13
MN-buyout-20186-143575-01 [1] - 533:6
model [6] - 587:9, 594:15, 603:19, 618:22, 618:23
modeling [12] - 561:22, 593:25, 594:10, 596:16, 598:25, 599:2, 603:18, 618:14, 618:15, 618:20, 619:6, 625:9
Modeling [2] - 529:8, 529:9
modelled [2] - 532:7, 532:8
models [1] - 599:3
modification [1] - 593:12
modifications [1] - 592:20
Mogen [3] - 554:11, 559:4, 559:14
Mogen's [1] - 605:22
Moines [1] - 576:7
Monday [1] - 588:19
money [1] - 610:2
monitor [5] - 585:21, 598:22, 601:6, 601:16, 603:7
Monitoring [1] - 530:14
monitoring [2] - 541:6, 599:11
month [1] - 620:20
months [1] - 599:21
MOREY [1] - 528:10
Morey [3] - 533:13, 539:1, 539:11
Morey's [1] - 557:25
morning [23] - 534:1, 534:14, 538:11, 538:12, 539:6, 542:10, 542:11, 544:10, 544:11, 550:16, 560:3, 560:4, 580:5, 580:7, 589:2, 609:3, 609:4, 616:10, 616:11, 616:12, 616:13, 619:10, 622:1
most [3] - 587:14, 604:2, 624:13
mostly [1] - 580:8
motion [4] - 573:13, 629:5, 638:21, 639:2
move [4] - 554:15, 583:13, 603:13, 638:22
moved [1] - 634:24
Moved [1] - 529:21
moving [1] - 563:24
MR [49] - 537:4, 537:7, 537:11, 542:1, 542:4, 542:8, 550:2, 550:4, 550:8, 554:18, 554:20, 554:24, 559:24, 560:2, 562:7, 562:14, 562:19, 562:22, 563:1, 570:25, 572:2, 573:4, 573:7, 579:19, 581:3, 581:5, 590:25, 608:24, 609:2, 615:20, 616:5, 616:7, 628:19, 629:9, 631:6, 631:22, 632:7, 632:11, 632:15, 632:20, 633:18, 634:7, 634:9, 634:25, 635:6, 635:8, 636:12, 636:18, 637:12
MS [157] - 534:1, 534:9, 534:13, 536:22, 536:25, 537:6, 537:8, 537:9, 537:10, 537:12, 537:15, 538:10, 538:19, 538:20, 538:22, 539:1, 539:5, 541:22, 541:24, 542:3, 542:5, 542:6, 542:7, 542:9, 544:9, 549:9, 549:10, 549:12, 549:23, 549:25, 550:3, 550:5, 550:6, 550:7, 550:9, 550:12, 550:15, 554:15, 554:17, 554:19, 554:21, 554:22, 554:23, 554:25, 555:2, 555:3, 555:4, 559:20, 559:22, 559:25, 562:18, 562:20, 562:23, 563:2, 565:16, 570:20, 571:5, 571:6, 571:7, 571:12, 571:20, 573:2, 573:6, 573:8, 579:21, 579:23, 579:25, 580:2, 580:4, 581:4, 581:11, 581:18, 581:19, 582:19, 582:23, 582:25, 583:7, 583:9, 583:11, 583:13, 590:24, 591:1, 591:21, 591:22, 591:24, 591:25, 592:1, 592:2, 592:4, 592:6, 603:11, 603:15, 603:16, 603:21, 608:20, 608:22, 615:15, 615:18, 615:23, 616:2, 616:6, 616:8, 627:22, 627:23, 627:25, 628:1, 628:2, 628:6, 628:8, 628:9, 628:11, 628:13, 628:15, 628:21, 629:3, 629:4, 630:18, 631:18, 631:19, 631:21, 631:23, 631:24, 632:4, 632:10, 632:12, 632:17, 632:24, 633:3, 633:7, 633:8, 633:11, 633:16, 633:23, 634:8, 634:10, 634:11, 634:13, 634:19, 635:2, 635:4, 635:5, 635:7, 635:9, 636:13, 636:19, 636:20, 636:23, 637:1, 637:2, 637:3, 637:5, 637:7, 637:9, 637:10, 637:13, 637:15, 638:3
MT-1 [1] - 529:13
multicounty [1] - 574:4
municipal [2] - 552:1, 552:6
Murphy [12] - 523:17, 525:4, 525:7, 525:10, 525:18, 525:21, 526:4, 526:6, 526:7, 526:15, 526:18, 592:4
MURPHY [11] - 554:18, 559:24, 581:3, 581:5, 590:25, 628:19, 631:6, 632:20, 633:18, 634:25, 636:18
must [1] - 625:14
MW [3] - 531:3, 531:8, 531:9
MWs [1] - 531:4

N

NAD83 [1] - 531:11
name [8] - 534:15, 539:7, 539:9, 539:14, 539:15, 539:17, 539:18, 550:18
NARUC [6] - 567:10, 574:8, 629:16, 631:11, 631:15, 632:8
NARUC's [1] - 630:22
National [1] - 556:2
native [1] - 541:16
natural [1] - 551:4
nature [2] - 568:1, 586:1
near [5] - 541:10, 594:3, 595:3, 607:22, 608:10
nearby [1] - 608:14
Nearby [1] - 530:15
nearest [1] - 561:9
nearing [1] - 601:4
nears [1] - 601:2
necessarily [2] - 607:8, 621:18
need [26] - 541:12, 543:22, 544:22, 547:21, 548:20, 556:3, 557:12, 558:25, 570:5, 581:8, 586:17, 586:19, 589:22, 597:10, 600:13, 602:3, 602:14,

603:13, 605:8, 607:12, 610:16, 622:21, 628:17, 629:25, 635:11, 636:17
needed [6] - 558:12, 562:24, 587:22, 588:2, 588:7, 597:22
needs [2] - 559:5, 605:25
negotiations [1] - 598:6
neighbor [1] - 576:24
NELSON [12] - 523:11, 537:13, 548:15, 549:8, 618:9, 618:19, 618:25, 619:7, 619:20, 620:14, 638:22, 638:24
Nelson [3] - 537:12, 637:23, 638:23
NERC [1] - 556:2
Nest [1] - 529:7
nests [2] - 541:20
never [4] - 548:3, 596:14, 597:18, 617:8
new [1] - 582:16
news [1] - 548:18
next [12] - 578:24, 589:2, 590:7, 590:9, 614:5, 614:21, 614:22, 616:9, 618:8, 620:20, 622:14, 628:11
NextEra [13] - 540:3, 541:8, 557:10, 557:22, 573:21, 614:8, 622:3, 622:5, 622:6, 622:12, 622:14, 622:17, 622:19
nice [1] - 620:23
night [3] - 534:6, 548:18, 594:19
nine [1] - 547:2
noise [25] - 556:23, 557:1, 557:16, 563:19, 563:25, 567:9, 567:18, 568:2, 568:12, 574:20, 588:10, 588:11, 588:13, 588:15, 588:18, 588:22, 589:11, 589:17, 591:20, 593:12, 594:9, 603:18, 624:6, 624:22, 629:14
Noise [11] - 529:18, 530:3, 530:4, 530:6, 530:10, 530:11, 530:12, 531:14, 531:18, 575:11, 593:6
none [1] - 572:13
nonparticipant [3] - 577:8, 590:10, 598:10
nonparticipants [3] - 578:2, 590:22, 594:2
nonparticipating [2] - 591:7, 606:14
nonparticipator's [1] - 591:16
nonparticipators [1] - 593:8
noon [1] - 635:20
normal [1] - 558:22
normally [1] - 634:3
North [1] - 547:1
Northern [4] - 557:8, 558:6, 558:13, 622:5
northwest [4] - 543:1, 549:15, 549:20
Notary [2] - 640:7, 640:18
note [1] - 545:16
noted [1] - 564:17
notes [1] - 564:17
nothing [4] - 537:7, 542:4, 635:14, 638:7
Notice [2] - 529:21, 529:22
notice [12] - 543:10, 590:9, 601:6, 629:11, 629:12, 629:19, 629:21, 630:10, 630:13, 630:19, 630:23
noticed [2] - 590:11, 608:13
notified [1] - 543:20
notify [6] - 543:6, 558:1, 558:2, 601:3, 627:7, 627:10
notifying [1] - 556:20
NSP [9] - 610:19, 614:9, 615:10, 622:7, 622:11, 622:12, 622:16, 622:18, 622:20
nuisance [3] - 568:5, 573:25, 624:25
number [11] - 536:13, 536:14, 537:17, 537:22, 540:1, 541:18, 551:2, 554:2, 562:25, 572:22, 618:21
numbers [1] - 537:22
numerous [2] - 555:16, 632:13
nutshell [1] - 553:18

O

O&M [1] - 535:25
oath [5] - 534:11, 539:3, 550:13, 618:8, 621:3
object [5] - 631:17, 632:1, 632:3, 632:23, 633:22
objected [1] - 571:21
objection [20] - 554:18, 554:20, 554:22, 570:20, 571:12, 573:2, 581:3, 581:4, 582:19, 582:24, 590:24, 591:21, 603:11, 615:15, 630:25, 631:13, 631:19, 631:22, 634:12, 635:2
objections [2] - 554:24, 635:1
Objective [2] - 530:4, 530:9
obligation [1] - 571:2
observed [1] - 608:8
obvious [1] - 581:6
obviously [2] - 580:25, 616:15
occasionally [1] - 547:23
occasions [1] - 632:13
occupied [1] - 531:10
occur [2] - 558:2, 612:11
occurring [1] - 612:14
October [3] - 574:21, 575:11, 629:14
OF [6] - 523:2, 523:4, 523:5, 640:1, 640:3
offer [5] - 570:5, 576:23, 579:5, 614:23, 626:11
offered [5] - 588:9, 607:11, 632:22, 633:3, 633:13
offering [1] - 607:3
office [4] - 534:22, 536:1, 538:15, 626:8
officer [11] - 586:3, 586:13, 586:15, 586:23, 588:24, 589:11, 603:24, 603:25, 604:2, 604:7, 604:17
officers [1] - 538:15
official [5] - 629:11, 629:19, 629:21, 630:10, 630:13
oftentimes [1] - 538:2
old [1] - 572:2
older [1] - 543:18
OLLSON [1] - 526:17
Ollson [3] - 529:23, 532:6, 583:15
Olson [6] - 533:14, 534:9, 534:14, 534:16, 535:13, 538:22
OLSON [1] - 528:7
omnidirectional [1] - 563:14
once [7] - 571:14, 598:1, 598:2, 602:12, 611:3, 614:9, 623:2
one [54] - 535:20, 541:1, 542:12, 546:16, 548:16, 549:6, 549:10, 551:18, 551:23, 553:15, 555:21, 559:2, 566:18, 568:23, 569:2, 571:1, 573:18, 575:14, 580:17, 581:13, 583:5, 585:19, 586:8, 591:10, 591:22, 592:19, 603:3, 606:18, 608:12, 608:15, 608:17, 608:19, 609:20, 612:17, 612:19, 613:4, 613:6, 613:16, 614:5, 614:21, 614:22, 615:22, 617:16, 618:25, 619:15, 620:7, 621:5, 623:5, 626:25, 629:2, 632:1, 632:9, 632:17
one's [1] - 583:6
ones [2] - 555:9, 612:18
Onida [2] - 523:25, 640:13
onsite [1] - 613:17
oops [1] - 629:9
opened [1] - 538:2
opening [1] - 622:1
operate [1] - 613:12
operated [1] - 559:11
operating [4] - 558:21, 577:6, 615:10
operation [1] - 555:19
operations [1] - 604:3
opinion [3] - 568:3, 629:22, 631:8
opinions [1] - 631:12
opportunity [3] - 580:1, 629:23, 635:12
opposed [1] - 619:15
Optical [1] - 530:22
option [1] - 588:6
options [1] - 627:11
oral [5] - 635:24, 636:5, 636:7, 636:17
Ord [2] - 532:3, 532:4
order [9] - 534:2, 535:1, 535:2, 553:2, 562:8, 599:16, 604:15, 627:13, 635:25
ordered [6] - 555:13, 556:9, 558:18, 559:13, 593:8, 610:15
ordinance [7] - 568:20, 568:25, 569:13, 573:11, 573:24, 634:22, 635:9
ordinances [5] - 568:8, 569:4, 570:14, 570:15, 574:11
Original [1] - 529:20
otherwise [1] - 636:6
otter [1] - 548:24
otters [2] - 548:17, 548:19
outage [1] - 558:22
outside [4] - 570:21, 570:23, 571:11, 582:22
outstanding [2] - 553:15
overrule [1] - 571:12
own [3] - 542:20, 573:13, 626:7
owned [1] - 558:13
owner [7] - 545:2, 545:22, 546:1, 557:8, 598:19, 622:14, 623:6
owning [1] - 558:8

P

p.m [5] - 588:13,

588:18, 588:20, 588:22, 588:25
page [26] - 535:18, 542:14, 546:9, 546:12, 562:23, 563:1, 563:2, 563:8, 564:8, 566:23, 573:7, 576:3, 576:21, 592:9, 593:5, 594:8, 596:19, 598:16, 603:17, 603:22, 604:22, 611:16, 631:10, 636:12, 636:13
PAGE [6] - 525:2, 526:2, 527:2, 527:9, 527:19, 528:2
pages [2] - 555:16, 630:17
Pages [1] - 523:9
Paige [5] - 533:14, 534:9, 534:16, 535:13, 538:11
PAIGE [1] - 528:7
paper [2] - 543:21, 575:15
parameters [2] - 569:22, 572:5
Parameters [1] - 530:6
Parcel [1] - 531:9
Park [5] - 569:3, 573:9, 587:25, 596:25, 598:12
park [2] - 574:4, 574:5
Parks [9] - 539:20, 540:22, 542:20, 543:8, 544:14, 544:18, 545:3, 545:6, 545:23
Parks' [1] - 545:21
part [12] - 543:1, 549:18, 564:23, 576:1, 576:4, 581:15, 598:4, 603:6, 615:18, 632:7, 632:22, 635:15
Part [1] - 533:9
partially [1] - 604:5
participant [1] - 598:10
Participants [1] - 530:13
participants [1] - 578:3
participating [1] - 604:12
particular [2] - 541:2, 574:9
particularly [2] - 542:25, 630:7
parties [1] - 635:18
partnering [1] - 541:8
party [3] - 545:3, 545:7, 633:25
Party [1] - 532:17
passed [1] - 620:5
past [22] - 555:9, 555:13, 555:15, 556:1, 556:8, 558:19, 559:16, 566:20, 568:22, 568:23, 569:15, 570:12, 574:13, 580:12, 587:17, 590:20, 595:11, 608:3, 611:8, 611:12, 623:25, 625:16
path [2] - 615:8, 615:9
paths [1] - 535:23
patience [1] - 637:16
patrolman [1] - 612:20
Paulson [2] - 621:1, 627:18
pay [2] - 581:24, 611:18
pdf [1] - 625:14
people [2] - 589:24, 634:16
people's [1] - 630:25
per [30] - 560:9, 568:21, 570:6, 570:10, 570:11, 571:3, 573:6, 573:10, 573:13, 573:16, 578:1, 578:3, 598:14, 598:18, 599:9, 600:15, 602:9, 609:24, 609:25, 610:6, 610:23, 619:4, 624:21, 625:4, 626:1, 626:13, 626:15, 626:16
perceived [1] - 561:11
percent [1] - 617:20
perhaps [5] - 536:16, 574:16, 583:15, 591:17, 593:23
period [2] - 607:5, 620:12
periodically [1] - 548:25
periods [3] - 558:23, 607:9, 607:15
Permit [1] - 533:16
PERMIT [1] - 523:5
permit [42] - 534:4, 541:6, 541:13, 551:4, 551:5, 553:15, 553:25, 554:3, 554:5, 554:12, 556:5, 559:6, 559:7, 559:9, 567:21, 569:7, 575:17, 577:9, 577:17, 577:24, 578:19, 579:8, 585:22, 585:23, 586:2, 586:18, 586:19, 588:17, 589:16, 591:10, 592:21, 593:8, 594:4, 596:24, 598:16, 599:16, 604:6, 613:3, 619:9, 619:11, 625:3, 627:14
Permits [1] - 529:9
permits [16] - 551:3, 551:4, 553:3, 553:5, 555:14, 555:16, 555:20, 556:8, 587:4, 587:5, 609:11, 619:12, 619:14, 619:18, 623:25, 624:13
permitted [8] - 583:21, 587:19, 589:16, 592:21, 594:20, 595:10, 596:25, 624:5
permitting [5] - 553:10, 579:18, 596:2, 623:10, 623:23
person [3] - 585:25, 601:22, 626:4
personally [1] - 597:19
perspective [7] - 584:16, 602:13, 602:25, 617:3, 617:22, 620:10, 623:23
pertaining [1] - 544:21
photo [1] - 611:22
photos [1] - 590:12
Photosensitive [2] - 530:17, 530:18
physical [1] - 629:23
physically [1] - 618:20
physics [2] - 599:3, 618:15
picture [3] - 595:9, 612:4, 612:8
pieces [1] - 612:2
Pierre [1] - 524:4
pipeline [1] - 551:5
placard [1] - 612:25
place [3] - 587:3, 603:16, 603:21
placed [3] - 585:10, 605:19, 613:1
placements [1] - 595:23
placing [1] - 541:16
Plan [1] - 529:11
plan [5] - 556:16, 556:20, 584:7, 584:18, 584:21
planning [10] - 544:5, 567:3, 567:6, 567:8, 567:16, 567:20, 567:21, 567:25, 568:9, 584:22
plans [1] - 587:14
plant [13] - 535:24, 551:4, 590:3, 590:7, 590:9, 590:13, 590:17, 590:23, 591:3, 591:6, 591:8, 591:12, 591:17
plants [1] - 591:18
play [1] - 584:4
plow [1] - 562:16
plus [1] - 617:12
point [16] - 560:18, 564:11, 566:18, 566:19, 566:20, 585:4, 592:6, 598:2, 600:13, 602:18, 603:3, 603:13, 615:5, 617:12, 617:21, 622:18
pointed [1] - 565:20
pointing [1] - 565:23
points [2] - 578:21, 630:8
Polysomnographic [1] - 530:6
population [1] - 549:5
portion [3] - 549:15, 589:19, 638:8
portions [1] - 629:5
posed [1] - 548:16
position [17] - 564:20, 564:25, 565:2, 565:5, 565:10, 565:13, 565:15, 565:18, 576:13, 578:5, 578:12, 578:16, 579:5, 594:6, 604:2, 630:3
positions [2] - 566:2, 621:22
possibilities [1] - 620:17
possibility [1] - 619:3
possible [4] - 565:2, 576:10, 576:15, 600:24
possibly [8] - 578:19, 583:16, 584:13, 584:14, 602:17, 602:20, 626:2, 627:8
post [1] - 543:7
postconstruction [2] - 587:15, 605:13
Postconstruction [1] - 529:17
posted [1] - 556:18
posthearing [2] - 635:16, 635:25
Potential [2] - 530:19, 531:19
potential [2] - 531:4, 546:19
power [3] - 630:5, 630:22, 633:9
Power [4] - 557:8, 558:7, 558:13, 622:5
Poweshiek [1] - 529:6
practices [10] - 567:3, 567:6, 567:10, 567:16, 567:20, 567:25, 574:8, 629:16, 630:22, 632:9
prairie [3] - 541:3, 541:6, 543:25
prairies [1] - 541:17
precaution [1] - 622:24
Precision [1] - 523:25
preclude [1] - 620:7
preconstruction [1] - 587:13
predicted [1] - 619:1
preemptive [1] - 601:6
prefer [2] - 560:16, 630:16
prefiled [4] - 535:3, 540:17, 552:13, 553:17
Prefiled [8] - 533:12, 533:12, 533:13, 533:14, 533:14, 533:15, 551:14, 552:23
prepare [2] - 535:1, 535:2
prepared [5] - 535:5, 552:13, 585:21, 628:17, 628:19
presented [3] - 566:9, 569:19, 573:21

presently [2] - 546:15, 546:18
pretty [1] - 597:6
Prevailing [10] - 569:2, 572:19, 572:20, 573:9, 587:25, 593:6, 593:19, 593:21, 596:25, 598:12
prevent [1] - 613:6
previous [4] - 535:3, 541:2, 541:5, 597:1
primarily [1] - 541:17
Primary [1] - 532:5
printing [1] - 543:22
private [4] - 542:19, 542:20, 583:19, 583:25
privy [1] - 581:16
pro [2] - 523:20, 523:22
problem [2] - 601:21, 605:17
problems [1] - 585:20
procedure [1] - 635:16
proceed [1] - 623:8
proceeding [6] - 534:21, 535:1, 535:2, 539:25, 550:25, 598:4
proceedings [4] - 524:1, 558:10, 640:9, 640:12
Proceedings [1] - 523:7
process [10] - 573:11, 579:16, 596:2, 600:4, 601:18, 602:6, 602:13, 603:24, 616:23
produce [1] - 596:5
Produced [1] - 530:11
produced [4] - 581:1, 594:1, 595:21, 625:23
product [1] - 584:5
professional [1] - 638:9
Professional [2] - 640:6, 640:19
profit [5] - 580:16, 580:21, 580:25, 581:25, 582:6
project [52] - 537:25, 544:6, 548:1, 549:20, 553:9, 553:14, 554:5, 556:13, 557:9, 558:8, 558:13, 569:1, 580:14, 586:10, 586:16, 589:19, 589:21, 589:22, 589:25, 590:20, 591:6, 591:9, 591:13, 593:7, 593:9, 594:16, 594:19, 595:3, 595:4, 597:7, 597:9, 598:11, 601:22, 604:15, 607:19, 607:23, 609:16, 609:17, 609:21, 609:23, 610:11, 610:18, 614:1, 614:10, 614:24, 622:14, 622:19, 623:5, 625:21, 637:24
projects [22] - 555:15, 557:3, 559:16, 574:14, 586:9, 587:24, 593:20, 594:11, 594:25, 595:12, 595:13, 595:17, 595:19, 595:20, 595:22, 596:4, 596:23, 599:12, 603:19, 610:5, 624:4, 625:16
proof [2] - 554:4, 579:12
proper [6] - 551:25, 568:3, 570:8, 624:25, 626:16, 629:21
properly [7] - 558:2, 579:17, 584:9, 584:20, 585:7, 606:3, 606:17
properties [2] - 538:1, 543:9
property [16] - 545:2, 546:1, 578:6, 579:3, 579:9, 583:20, 590:6, 606:16, 607:22, 607:25, 608:4, 608:6, 608:10, 608:11, 617:3, 630:8
Property [2] - 529:10, 531:22
proposal [5] - 532:7, 532:8, 532:9, 557:23, 588:12
propose [1] - 602:10
proposed [25] - 552:12, 553:25, 555:8, 559:1, 573:9, 574:1, 577:10, 578:19, 579:8, 579:11, 586:18, 587:19, 588:21, 591:9, 591:11, 604:22, 605:4, 607:13, 608:14, 611:16, 612:23, 613:3, 619:9, 625:3, 625:6
Proposed [2] - 529:17, 533:16
protect [3] - 607:20, 607:24, 623:19
protected [1] - 621:16
protecting [1] - 584:11
protection [1] - 607:3
protections [1] - 623:14
Protocol [1] - 529:18
protocol [2] - 557:1, 557:3
prove [1] - 612:5
provide [18] - 536:11, 540:20, 540:23, 541:15, 541:18, 543:3, 543:11, 552:21, 556:10, 561:22, 562:21, 565:13, 568:2, 578:22, 587:13, 587:15, 600:17, 617:10
provided [9] - 552:17, 553:2, 556:13, 556:16, 556:24, 565:4, 575:14, 575:24, 610:14
providing [2] - 540:6, 573:22
proving [1] - 630:3
prudent [2] - 582:10, 605:15
Psychological [1] - 530:8
PUBLIC [2] - 523:1, 523:10
Public [10] - 529:22, 550:20, 575:12, 621:10, 621:12, 622:3, 623:1, 629:15, 640:7, 640:18
public [17] - 556:20, 558:3, 586:2, 586:13, 586:15, 586:23, 588:24, 589:11, 595:21, 604:16, 604:17, 613:2, 621:11, 621:16, 621:23, 623:3, 623:13
Publication [1] - 529:22
publicly [1] - 542:15
published [1] - 556:11
PUC [21] - 529:22, 565:8, 566:1, 566:4, 585:21, 591:5, 593:10, 595:11, 595:18, 596:8, 596:23, 600:25, 601:4, 601:5, 605:11, 607:23, 614:11, 614:22, 615:4, 622:9, 624:19
PUC's [1] - 567:21
pulled [1] - 594:19
purchased [2] - 558:13, 610:19
purchases [1] - 614:9
purchasing [1] - 558:7
purposes [4] - 535:8, 540:8, 551:8, 553:21
pursuant [3] - 559:8, 605:20, 627:8
pursue [2] - 545:7, 627:12
put [15] - 541:9, 541:12, 543:14, 557:13, 583:3, 587:3, 597:21, 601:6, 609:14, 621:3, 622:3, 622:9, 624:12, 629:9, 629:10
putting [3] - 599:17, 606:4, 610:3

Q

Quality [1] - 530:13
quality [1] - 549:6
quantifiable [1] - 547:15
quantify [2] - 547:6, 547:19
Quarry [1] - 549:21
quarter [2] - 547:3, 547:4
questioning [2] - 551:19, 552:7
Questions [18] - 525:6, 525:12, 525:16, 525:20, 526:6, 526:13, 526:16, 526:20, 527:5, 527:7, 527:12, 527:15, 527:17, 527:22, 528:6, 528:9, 528:11, 528:16
questions [38] - 536:7, 536:23, 537:4, 537:9, 537:11, 537:14, 540:16, 541:22, 542:1, 542:6, 542:8, 542:12, 548:14, 549:24, 550:6, 550:8, 552:18, 555:4, 559:20, 559:24, 574:13, 576:18, 580:8, 581:9, 582:12, 583:5, 601:10, 603:13, 605:3, 608:20, 616:9, 616:15, 618:10, 619:8, 620:23, 626:9, 628:13
quick [2] - 564:15, 627:23
quickest [2] - 615:8, 615:9
quite [1] - 547:4
quote [2] - 564:17, 594:14

R

raise [1] - 638:5
raised [1] - 586:5
RALL [1] - 527:13
Rall [1] - 532:18
Range [8] - 558:11, 594:15, 595:5, 596:10, 596:11, 596:15, 596:17, 603:20
range [1] - 624:5
rap [1] - 637:9
Raptor [1] - 529:7
raptor [1] - 541:20
rate [1] - 558:9
rather [3] - 598:7, 617:15, 622:24
read [10] - 562:6, 566:14, 566:17, 571:18, 575:2, 575:25, 588:11, 598:17, 628:22, 631:10
readily [1] - 630:15
reading [1] - 598:20
ready [3] - 585:11, 619:25, 620:1
Reagan [1] - 605:10
real [1] - 564:15
Realistic [2] - 531:9, 531:10

realize [3] - 542:24, 587:5, 605:13
really [16] - 536:21, 538:21, 547:7, 547:16, 570:20, 570:23, 571:11, 603:21, 607:1, 617:10, 617:12, 618:7, 636:10, 637:19, 638:17
Realtime [2] - 640:6, 640:19
reask [1] - 583:7
reason [5] - 572:2, 572:24, 576:21, 590:11, 627:10
reasonable [5] - 556:15, 581:25, 590:18, 590:21, 590:22
reasons [5] - 538:3, 630:19, 632:2, 634:15, 634:17
rebar [1] - 585:12
Rebuttal [8] - 532:6, 532:6, 532:10, 532:10, 532:11, 532:11, 532:12, 557:24
rebuttal [4] - 551:20, 552:6, 628:16, 628:20
receive [10] - 534:23, 555:14, 555:19, 584:9, 584:24, 588:17, 588:24, 596:2, 599:2, 635:17
received [10] - 534:22, 536:1, 554:10, 564:12, 566:11, 589:20, 602:12, 609:10, 630:8
receives [1] - 588:25
recent [2] - 583:6, 585:19
recently [2] - 539:16, 620:5
receptor [9] - 561:6, 561:22, 563:13, 563:17, 563:24, 597:17, 625:18, 625:19, 625:20
Receptor [3] - 531:8, 531:10, 561:4
receptor's [1] - 597:14
recess [3] - 534:6, 579:24, 628:5
reclamation [2] - 604:10, 604:18
recognition [1] - 579:9
recognize [5] - 540:11, 547:22, 551:11, 553:22, 633:21
recollection [1] - 561:14
recommend [4] - 568:21, 573:14, 593:18, 598:16
recommendation [5] - 558:1, 572:23, 572:25, 573:18, 597:2
recommendations [11] - 538:16, 540:23, 541:1, 541:15, 541:19, 574:25, 575:4, 575:5, 575:7, 575:8, 617:15
recommended [5] - 541:6, 554:9, 588:17, 607:14, 608:5
recommending [3] - 541:7, 573:16, 573:22
record [17] - 534:15, 539:10, 569:19, 569:25, 572:10, 574:3, 579:22, 593:24, 597:22, 598:23, 621:22, 624:10, 628:6, 631:17, 631:25, 632:22, 635:13
records [1] - 551:25
recourse [2] - 600:3, 627:15
recovery [1] - 558:9
recross [1] - 550:1
Recross [7] - 525:7, 525:8, 526:7, 526:8, 526:8, 526:9, 527:23
Recross-Examination [7] - 525:7, 525:8, 526:7, 526:8, 526:8, 526:9, 527:23
redirect [6] - 538:19, 538:21, 549:9, 550:1, 627:22, 628:8
Redirect [6] - 525:7, 525:21, 526:7, 527:23, 528:6, 528:12
REDIRECT [1] - 549:11
reduce [1] - 610:22
refer [4] - 574:12, 574:18, 577:23, 590:2
reference [3] - 576:6, 595:1, 595:13
referred [3] - 566:16, 574:14, 583:15
referring [4] - 563:7, 567:7, 567:19, 567:20
reflect [5] - 552:11, 557:22, 558:12, 561:22, 624:10
reflected [1] - 613:13
regard [2] - 631:7, 631:14
regarding [13] - 529:19, 529:20, 531:21, 531:23, 551:19, 555:5, 570:22, 576:10, 580:8, 588:10, 603:23, 612:9, 633:9
regardless [1] - 556:4
regards [1] - 614:2
Registered [2] - 640:5, 640:19
regular [1] - 616:23
regularly [1] - 635:21
regulate [1] - 630:7
regulation [2] - 621:16, 624:15
regulations [5] - 569:21, 569:24, 572:5, 572:7, 621:17
regulatory [5] - 575:16, 575:20, 577:15, 577:23, 594:6
REISS [40] - 534:9, 534:13, 536:22, 538:20, 539:1, 539:5, 541:22, 549:10, 549:12, 549:23, 550:12, 550:15, 554:15, 555:2, 555:4, 559:20, 562:20, 562:23, 563:2, 565:16, 570:20, 571:5, 571:7, 573:2, 573:6, 573:8, 582:19, 590:24, 591:21, 591:24, 592:1, 592:4, 603:11, 615:15, 627:23, 628:1, 628:8, 628:13, 634:11, 636:19
Reiss [10] - 523:23, 525:6, 525:8, 525:11, 525:20, 527:5, 528:8, 528:11, 528:12, 528:14
reiterated [1] - 589:6
relate [1] - 550:25
related [8] - 541:19, 588:11, 588:13, 589:12, 589:14, 590:17, 609:18, 612:19
Related [1] - 531:15
relates [1] - 564:13
relating [1] - 626:12
relation [1] - 595:20
relationship [1] - 545:23
relative [5] - 546:15, 595:13, 595:23, 599:13
Reliability [1] - 556:2
relied [3] - 571:9, 573:24, 576:11
relief [1] - 600:4
relies [1] - 565:12
rely [9] - 552:5, 565:13, 566:9, 567:17, 568:2, 568:12, 568:15, 574:11, 575:6
relying [4] - 565:17, 566:2, 567:15, 606:6
remarks [1] - 638:16
remember [5] - 549:2, 563:15, 571:25, 589:7, 618:7
reminded [2] - 632:13, 632:15
reminding [1] - 632:12
remodeled [1] - 597:11
removal [2] - 559:12, 585:11
remove [4] - 584:19, 585:15, 606:1, 606:8
removed [3] - 555:21, 605:25, 606:22
removing [2] - 556:6, 584:17
repair [1] - 558:25
repeat [1] - 545:15
repetitive [1] - 596:20
rephrase [3] - 577:12, 581:18, 601:9
rephrasing [1] - 591:2
replacing [1] - 619:11
report [13] - 535:21, 536:1, 567:11, 594:16, 629:14, 629:16, 631:7, 631:9, 631:13, 631:14, 631:15, 632:9
Report [11] - 529:5, 529:5, 529:6, 529:7, 529:7, 529:8, 529:8, 529:9, 531:6, 531:7, 575:12
Reported [4] - 523:24, 530:4, 530:7, 530:9
reporter [5] - 534:11, 539:3, 550:13, 571:17, 640:9
Reporter [4] - 640:6, 640:19, 640:19
Reporting [1] - 523:25
reports [4] - 536:14, 540:5, 596:8, 615:24
represent [1] - 578:5
representatives [1] - 538:4
Request [7] - 562:13, 562:21, 563:4, 563:9, 580:18, 580:20, 582:11
request [13] - 559:3, 559:14, 583:4, 597:15, 604:16, 605:22, 610:21, 620:11, 622:11, 625:13, 625:21, 626:7, 629:10
requested [1] - 580:15
requesting [1] - 580:20
requests [7] - 544:18, 582:15, 582:16, 583:1, 583:3, 626:10, 626:24
require [6] - 577:18, 587:13, 587:15, 601:16, 606:21, 619:14
required [5] - 555:20, 556:9, 558:21, 577:14, 610:20
requirement [1] - 612:25
requirements [3] - 583:24, 604:24, 605:6
requiring [1] - 635:18
research [1] - 547:1
residence [6] - 560:19, 560:20, 561:2, 561:23, 598:19, 601:15
residences [1] - 598:18
Residents [1] - 530:15

resistance [1] - 623:5
resolution [4] - 601:24, 602:1, 602:20, 615:7
resolve [4] - 586:6, 602:4, 606:17, 615:3
resolved [2] - 586:13, 605:1
resource [2] - 536:13, 627:4
resources [1] - 538:6
Resources [2] - 529:5, 531:24
respond [3] - 562:8, 571:5, 603:5
Response [1] - 532:12
response [8] - 562:12, 564:11, 565:9, 576:3, 576:6, 576:25, 577:7, 582:23
Responses [5] - 532:23, 533:3, 533:4, 533:5, 533:9
rest [2] - 589:3, 628:14
restate [1] - 589:4
restoration [2] - 604:10, 604:18
Result [1] - 531:9
result [2] - 563:19, 563:25
resulted [1] - 563:23
Results [3] - 531:8, 531:10, 531:11
results [4] - 531:10, 532:9, 599:2, 625:17
Resume [4] - 529:13, 529:14, 529:15, 529:17
resume [1] - 581:21
resurgence [2] - 548:19, 549:4
retained [2] - 593:10, 604:18
retire [1] - 572:3
reuse [1] - 585:2
Revenue [1] - 552:3
Revenues [1] - 529:16
Review [1] - 530:16
review [22] - 534:19, 535:19, 536:4, 539:22, 547:14, 548:25, 549:3, 553:7, 553:12, 556:19, 558:9, 567:17, 568:18, 579:13, 579:14, 583:18, 584:1, 596:7, 599:1, 610:19, 613:25, 614:12
reviewed [6] - 534:25, 535:3, 536:2, 536:13, 551:2, 622:13
reviewing [2] - 540:4, 566:21
reviews [1] - 552:24
revised [1] - 558:4
revision [1] - 619:19
revisit [1] - 633:19
revocation [1] - 559:7
revoke [1] - 559:9
Rich [1] - 529:16
RICH [1] - 526:10
Richard [2] - 529:17, 532:10
Richter [1] - 608:12
rid [1] - 623:12
Ridge [62] - 523:17, 529:3, 534:4, 537:3, 537:4, 541:5, 541:25, 542:1, 544:3, 550:1, 554:1, 554:17, 556:13, 556:25, 557:11, 559:17, 559:23, 561:21, 576:23, 580:14, 580:23, 581:17, 582:2, 582:4, 582:11, 582:13, 586:22, 588:15, 589:10, 589:11, 589:21, 589:25, 592:12, 593:13, 593:15, 593:16, 593:19, 594:9, 594:13, 594:14, 594:20, 594:23, 595:3, 596:9, 596:10, 596:11, 596:15, 596:17, 597:13, 601:5, 604:1, 605:8, 606:13, 607:2, 608:1, 614:8, 622:2, 628:18, 631:5, 632:2, 632:19, 636:16
RIDGE [1] - 523:4
Ridge's [1] - 634:11
rights [3] - 542:19, 579:3, 579:9
Riina_Bray_IWT_Niagara [1] - 532:23
Riniker [1] - 603:25
risk [2] - 565:22, 606:19
Rislov [1] - 523:14
river [3] - 548:17, 548:19, 548:24
RL-1 [1] - 529:17
RL-2 [1] - 529:17
RL-3 [1] - 529:18
RM-S-1 [1] - 531:14
RM-S-2 [1] - 531:14
RM-S-3 [1] - 531:15
RM-S-4 [1] - 531:15
RM-S-5 [1] - 531:17
RM-S-6 [1] - 531:18
RM-S-7 [1] - 531:19
road [7] - 535:23, 556:21, 591:2, 591:6, 612:18, 612:19, 614:18
road-related [1] - 612:19
roadway [1] - 612:24
Robert [1] - 531:13
ROBERT [1] - 526:14
ROBISH [13] - 537:11, 542:8, 550:8, 554:24, 608:24, 609:2, 615:20, 616:5, 616:7, 631:22, 634:9, 635:8, 637:12
Robish [20] - 523:21, 525:5, 525:15, 525:19, 526:8, 526:19, 528:5, 528:15, 537:10, 542:7, 550:7, 554:23, 608:23, 609:3, 631:21, 634:8, 635:7, 636:11, 636:21, 637:10
Robish's [1] - 616:15
robust [1] - 541:10
role [4] - 540:22, 606:13, 621:10, 621:12
room [3] - 597:8, 630:25, 634:5
rotor [3] - 613:17, 613:19, 613:22
RPR [1] - 523:24
rule [2] - 583:18, 585:22
rulemaking [1] - 579:16
rules [8] - 553:3, 579:14, 582:13, 582:21, 583:1, 583:24, 592:23, 593:2
ruling [1] - 630:18

S

S1 [9] - 533:12, 551:8, 560:5, 563:3, 563:22, 564:6, 576:1, 576:4, 592:8
S2 [1] - 533:12
S3 [2] - 533:13, 540:8
S4 [2] - 533:14, 535:8
S5 [1] - 533:14
S6 [1] - 533:15
S7 [10] - 533:16, 553:21, 554:16, 555:1, 555:3, 571:1, 577:10, 577:24, 618:1, 629:4
safe [3] - 638:10, 638:14, 638:19
safety [2] - 543:1, 543:4
Safety [1] - 556:2
sale [1] - 608:12
salvage [1] - 609:15
sample [1] - 576:24
Sappington [3] - 529:12, 531:20, 532:11
SAPPINGTON [1] - 527:3
Sarah [3] - 529:12, 531:20, 532:11
SARAH [1] - 527:3
saturation [1] - 601:5
Saturday [1] - 588:19
save [2] - 536:6, 552:17
scale [1] - 594:22
scaled [2] - 623:22, 624:7
scenario [2] - 593:2, 622:24
scheduled [1] - 635:21
school [1] - 612:4
Schumacher [4] - 523:17, 525:14, 526:11, 527:4
SCHUMACHER [3] - 537:4, 542:1, 550:2
scope [3] - 570:21, 570:23, 571:11
Scores [1] - 530:9
SD [2] - 531:21, 531:23
SDSU [1] - 621:7
se [2] - 523:20, 523:22
search [3] - 562:5, 574:17, 575:9
season [1] - 542:25
second [7] - 560:12, 562:2, 581:13, 591:10, 631:10, 631:15, 632:3
Second [2] - 533:5, 533:5
secondly [1] - 629:16
Section [1] - 593:5
see [26] - 541:12, 543:24, 554:3, 556:23, 561:2, 567:4, 568:17, 578:24, 587:7, 587:8, 587:9, 590:6, 595:22, 595:25, 597:7, 599:19, 600:11, 605:18, 610:16, 611:15, 612:11, 620:6, 625:23, 625:24, 630:25
seeing [2] - 580:20, 635:14
seek [2] - 612:16, 627:8
seeking [1] - 597:15
segment [1] - 596:22
Seizures [2] - 530:19, 531:19
self [3] - 598:22, 603:7, 614:14
Self [3] - 530:4, 530:7, 530:9
self-insured [1] - 614:14
Self-Reported [3] - 530:4, 530:7, 530:9
sell [2] - 545:2, 622:19
send [6] - 552:25, 554:8, 597:15, 597:20, 625:14, 625:15
senior [1] - 539:22
sense [3] - 619:13, 620:3, 623:1
sentence [1] - 619:15
serious [1] - 615:12
Service [3] - 575:12, 607:12, 629:15
session [1] - 580:1
Set [4] - 533:3, 533:5, 533:6, 533:9
set [4] - 540:8, 568:8, 581:17, 617:15
setback [10] - 551:19, 567:9, 568:8, 587:16, 604:24, 605:6, 606:3, 606:20, 613:7, 613:9
setbacks [1] - 605:12
sets [2] - 599:13,

604:6
setting [2] - 569:22, 572:5
seven [5] - 547:1, 551:1, 566:19, 596:23, 619:2
shadow [38] - 531:10, 561:11, 563:19, 564:1, 568:4, 568:15, 568:20, 568:24, 569:8, 569:12, 569:13, 569:22, 570:22, 571:2, 572:6, 572:12, 572:16, 572:21, 573:23, 577:10, 577:25, 578:3, 578:5, 596:19, 596:24, 598:17, 599:4, 600:15, 618:11, 618:21, 619:1, 624:11, 625:11, 625:20, 626:1, 626:13, 626:19, 630:7
Shadow [5] - 529:9, 530:20, 531:7, 531:9, 532:8
shall [2] - 598:18, 598:20
shapefile [2] - 552:2, 552:4
shapefiles [2] - 595:19, 596:1
shatters [1] - 612:2
sheet [5] - 580:15, 581:1, 581:6, 581:25, 582:6
sheriff [3] - 614:17, 616:19, 616:20
Shirley [1] - 532:21
short [2] - 579:24, 628:5
shorthand [2] - 640:9
show [5] - 543:10, 593:24, 612:4, 616:9, 627:12
showing [1] - 580:24
shows [3] - 543:8, 561:8, 618:22
SHPO [1] - 535:18
shreds [1] - 612:6
shut [5] - 557:10, 557:12, 589:1, 602:3, 613:16
side [4] - 561:23, 563:17, 602:5
sign [1] - 612:25
signage [4] - 543:11, 543:14, 556:10
signed [1] - 598:19
significant [2] - 565:21, 594:17
simply [2] - 619:15, 630:4
Sioux [1] - 586:23
site [8] - 586:10, 587:20, 588:2, 606:20, 614:24, 615:2, 615:9, 617:5
sited [5] - 595:9, 605:20, 608:10, 608:15, 612:23
sites [4] - 536:16, 537:18, 537:23, 613:1
siting [6] - 551:3, 551:4, 551:5, 553:5, 554:5, 605:17
sitting [1] - 578:24
situation [4] - 568:24, 606:18, 620:6, 620:8
six [1] - 618:8
skimmed [1] - 574:15
Skipper [1] - 529:6
Skipper-Poweshiek [1] - 529:6
Skipperling [1] - 529:7
sky [2] - 599:5, 599:14
Sleep [3] - 530:5, 530:6, 530:7
slightly [2] - 563:25, 596:3
slowly [1] - 570:13
small [2] - 597:6, 612:2
Society [1] - 534:18
Society's [2] - 531:21, 531:23
software [3] - 593:14, 593:15, 633:10
solution [1] - 602:10
someone [1] - 587:11
sometime [1] - 620:19
sometimes [3] - 543:17, 621:11, 626:7
somewhat [1] - 619:2
somewhere [1] - 581:2
sorry [8] - 546:6, 549:21, 566:8, 566:24, 576:5, 578:11, 604:25, 617:7
sort [1] - 582:20
Sorted [2] - 531:8, 531:10
sought [1] - 578:20
sound [6] - 563:25, 593:25, 594:17, 596:11, 623:14, 630:7
Sound [9] - 529:8, 529:18, 530:7, 531:6, 531:8, 531:9, 531:16, 532:7
sounds [1] - 563:23
source [2] - 569:11, 575:2
Sources [2] - 530:12, 531:17
sources [1] - 567:24
South [18] - 523:25, 524:4, 534:18, 539:20, 547:1, 548:20, 550:20, 553:4, 559:8, 564:12, 564:19, 572:11, 583:17, 584:11, 585:20, 607:24, 640:7, 640:13
SOUTH [2] - 523:2, 640:1
space [1] - 597:7
speaking [2] - 631:4, 637:24
species [4] - 546:10, 546:21, 547:2, 549:1
specific [12] - 551:20, 575:14, 583:25, 585:9, 592:17, 597:16, 607:7, 613:1, 613:3, 614:12, 619:18, 624:1
specifically [2] - 546:9, 607:16
specified [1] - 630:11
speculation [4] - 581:15, 581:20, 591:24, 616:3
speculative [1] - 615:18
spell [1] - 620:16
spirit [1] - 605:21
split [2] - 592:12, 592:15
spot [3] - 590:16, 590:18, 610:3
spotted [1] - 607:19
spreadsheet [1] - 625:13
spring [1] - 607:6
SS [1] - 640:2
SS-S-1 [1] - 531:21
SS-S-2 [1] - 531:23
staff [1] - 612:9
STAFF [1] - 523:13
Staff [99] - 523:23, 533:3, 533:4, 534:7, 534:8, 534:9, 536:22, 538:19, 539:1, 541:22, 549:9, 550:12, 552:12, 552:23, 553:6, 554:1, 554:2, 555:4, 555:17, 556:5, 556:14, 556:18, 556:25, 557:14, 557:15, 558:19, 561:21, 562:13, 563:9, 565:12, 566:5, 566:7, 568:5, 568:20, 568:21, 569:14, 571:8, 573:1, 573:9, 573:14, 573:24, 574:10, 574:22, 578:22, 582:10, 582:25, 583:3, 585:21, 587:18, 588:21, 589:13, 591:10, 592:16, 592:24, 593:18, 595:18, 596:5, 596:8, 596:14, 597:3, 597:13, 599:7, 600:22, 601:12, 601:14, 604:9, 604:16, 606:10, 607:2, 607:4, 607:13, 607:24, 613:5, 619:18, 620:4, 621:11, 621:13, 621:15, 622:9, 622:21, 623:1, 624:1, 624:20, 624:23, 624:24, 625:2, 625:6, 626:12, 627:4, 627:7, 627:12, 628:7, 628:8, 628:13, 629:4, 631:23, 634:10, 634:11, 636:16
Staff's [11] - 533:3, 533:4, 533:9, 553:12, 558:20, 584:16, 586:4, 594:6, 606:6, 617:14, 617:22
STAFF'S [3] - 527:19, 528:2, 533:11
stand [1] - 539:2
standard [1] - 626:21
standards [4] - 555:22, 555:23, 556:3, 556:6
Standards [1] - 556:3
standing [1] - 594:5
stands [1] - 630:6
Stanton [1] - 631:14
start [4] - 555:12, 598:4, 615:5, 618:5
started [4] - 547:14, 566:21, 590:12, 623:4
starting [1] - 537:1
State [4] - 531:21, 531:23, 534:18, 640:7
STATE [2] - 523:2, 640:1
state [19] - 534:14, 539:9, 543:1, 546:10, 549:1, 549:7, 549:14, 549:16, 549:18, 549:19, 553:9, 565:24, 568:9, 570:14, 572:13, 574:12, 583:22, 584:11, 627:15
statement [14] - 564:22, 580:16, 580:21, 581:1, 581:8, 581:25, 582:6, 582:7, 588:5, 588:16, 604:4, 610:21, 636:25
States [4] - 557:8, 558:7, 558:13, 622:5
states [3] - 565:24, 566:3, 607:5
Status [3] - 531:4, 532:4, 532:17
statute [1] - 620:18
statutes [4] - 572:11, 592:19, 592:23, 593:2
step [2] - 538:23, 550:10
steps [1] - 587:3
Steven [1] - 532:18
still [13] - 564:3, 594:5, 594:7, 600:8, 602:25, 603:2, 608:8, 612:6, 616:12, 616:13, 619:23, 624:13, 632:8
story [2] - 548:19, 612:15
Street [2] - 595:4,

595:5
streets [1] - 594:24
Stress [1] - 530:15
strike [3] - 601:7, 603:22, 629:6
strikes [1] - 612:22
structures [1] - 531:10
struggle [1] - 630:20
studied [3] - 567:13, 626:14, 626:20
studies [6] - 535:19, 544:2, 565:19, 565:24, 567:1, 596:12
Studies [2] - 529:10, 529:10
study [8] - 541:10, 541:14, 544:3, 548:7, 575:3, 575:11, 611:2, 626:12
Study [3] - 530:5, 531:6, 531:7
stuff [1] - 566:14
subject [2] - 558:22, 561:20
submissions [2] - 583:2, 613:25
submit [8] - 539:12, 539:14, 586:20, 610:20, 625:10, 630:16, 636:22, 636:23
submitted [9] - 539:15, 540:5, 551:15, 561:15, 561:16, 587:10, 598:3, 608:17, 629:15
submitting [1] - 631:1
Subpart [1] - 557:13
subpart [1] - 557:20
subpoena [1] - 534:22
subsequent [3] - 545:13, 629:25, 631:15
sufficient [1] - 580:13
suggested [3] - 556:24, 593:12, 596:14
suggestion [3] - 600:24, 602:17, 602:18
suggestions [1] - 544:18
suited [2] - 568:6, 579:17
SULLY [1] - 640:3
summary [4] - 536:11, 540:20, 552:21, 564:22
sun [2] - 599:4, 599:14
Sundays [1] - 588:20
Supplemental [11] - 529:23, 530:22, 531:5, 531:12, 531:12, 531:13, 531:20, 532:3, 532:12, 533:4, 533:15
support [6] - 573:22, 575:16, 600:14, 602:8, 626:15, 629:24
supportive [1] - 601:14
suppose [2] - 599:20, 612:21
supposed [1] - 598:23
surprised [1] - 622:6
survey [4] - 536:14, 538:3, 540:5, 606:12
Survey [6] - 529:5, 529:5, 529:7, 529:7, 529:8, 532:21
surveys [1] - 536:15
survive [1] - 545:1
suspect [4] - 546:15, 583:21, 590:16, 616:20
suspension [1] - 559:7
sustain [3] - 591:1, 591:25, 615:19
sustained [1] - 603:15
Swanson [23] - 523:18, 525:4, 525:10, 525:14, 526:4, 526:7, 526:11, 526:18, 527:11, 527:14, 527:17, 527:21, 528:4, 528:14, 537:6, 542:3, 550:3, 554:19, 559:25, 629:8, 634:5, 635:5, 636:9
SWANSON [22] - 537:7, 542:4, 550:4, 554:20, 560:2, 562:7, 562:14, 562:19, 562:22, 563:1, 570:25, 572:2, 573:4, 573:7, 579:19, 629:9, 632:7, 632:11, 632:15, 634:7, 635:6, 636:12
Swanson's [1] - 596:21
SWCA [3] - 531:21, 531:23, 538:7
switch [1] - 600:10
System [1] - 558:18
system [3] - 558:20, 558:24, 627:3

T

table [3] - 535:8, 551:6, 553:20
Tabular [2] - 531:8, 531:10
Tax [1] - 529:16
tax [1] - 551:24
technical [1] - 613:21
technology [4] - 623:12, 623:13, 623:19, 623:21
Technology [1] - 541:9
Telecommunication [1] - 529:10
template [1] - 559:18
temporary [1] - 556:15
tender [2] - 536:23, 559:21
tenders [1] - 541:23
tenths [1] - 547:4
term [5] - 545:18, 546:15, 547:24, 548:3, 548:5
terminated [2] - 604:7, 604:19
test [3] - 557:1, 557:3, 557:12
testified [2] - 573:4, 593:11
testify [2] - 570:7, 583:23
testifying [4] - 581:9, 590:24, 591:24, 616:16
testimony [59] - 535:3, 535:5, 536:12, 539:12, 540:21, 541:1, 541:4, 542:14, 543:20, 544:12, 546:21, 551:21, 552:10, 552:14, 552:22, 553:17, 557:23, 558:6, 562:9, 563:15, 563:16, 564:11, 566:23, 568:3, 570:21, 573:15, 574:7, 575:25, 576:10, 577:1, 577:3, 580:9, 580:13, 580:19, 580:22, 582:9, 582:22, 584:21, 585:1, 592:18, 593:23, 594:8, 596:19, 597:2, 598:16, 603:17, 605:3, 606:10, 608:7, 609:23, 613:13, 617:9, 617:10, 618:7, 621:21, 625:8, 625:22, 633:4, 633:6
Testimony [37] - 529:12, 529:12, 529:13, 529:14, 529:15, 529:16, 529:23, 530:22, 531:5, 531:12, 531:12, 531:13, 531:20, 532:3, 532:6, 532:6, 532:10, 532:10, 532:11, 532:11, 532:12, 533:12, 533:12, 533:13, 533:14, 533:14, 533:15, 535:13, 536:8, 540:12, 540:17, 551:14, 552:23, 557:24, 580:9, 592:8, 611:15
testimony's [1] - 598:2
testing [2] - 557:2, 557:16
thank-you's [1] - 638:17
THE [64] - 523:1, 523:2, 523:4, 523:10, 537:20, 538:12, 538:17, 538:24, 542:11, 542:18, 543:15, 543:19, 544:5, 544:11, 544:16, 544:19, 544:24, 545:9, 545:12, 545:15, 545:19, 546:2, 546:4, 546:7, 546:23, 547:12, 547:25, 548:5, 548:23, 557:19, 562:11, 562:24, 563:3, 581:16, 608:21, 616:1, 616:4, 616:11, 616:13, 616:20, 617:2, 617:18, 617:22, 618:2, 618:5, 618:17, 618:24, 619:5, 619:17, 620:4, 621:4, 621:7, 621:20, 622:11, 623:4, 623:21, 624:17, 624:22, 625:16, 626:3, 626:11, 627:6, 627:20
therefore [2] - 556:5, 589:19
they've [2] - 549:4, 587:10
thinking [4] - 556:1, 562:12, 586:22, 586:25
Third [1] - 533:3
Thompson [6] - 529:13, 529:13, 531:12, 532:11, 633:10, 633:20
THOMPSON [1] - 525:17
thoughts [2] - 547:11, 584:3
thousand [1] - 536:16
threatened [2] - 548:21, 549:1
three [6] - 534:2, 580:16, 594:21, 599:21, 613:20, 624:12
threshold [1] - 601:2
throughout [3] - 541:14, 574:13, 596:3
throw [5] - 611:17, 613:5, 613:6, 614:7, 616:17
throwing [1] - 613:20
thrown [2] - 611:18, 613:10
throws [1] - 613:2
Thurber [1] - 621:2
timely [2] - 627:2, 627:5
title [3] - 539:21, 539:22, 550:22
today [14] - 536:7, 536:9, 540:16, 548:16, 552:17, 552:18, 597:2, 622:24, 636:5, 636:17, 636:21, 637:1, 637:6, 637:11
today-based [1] - 622:24
together [2] - 541:9, 595:2
took [2] - 535:22,

640:9
top [5] - 545:4, 549:2, 569:9, 595:4, 624:17
total [4] - 537:25, 609:19, 625:10, 630:17
Toward [1] - 530:9
tower [2] - 555:17, 605:16
towers [3] - 535:24, 546:14, 546:22
track [1] - 599:18
Traditional [1] - 531:22
traditional [1] - 537:25
Traffic [2] - 556:11, 556:17
traffic [1] - 556:15
trailing [1] - 593:13
Training [1] - 524:2
Transcript [1] - 523:7
transcript [1] - 524:1
transcription [1] - 640:12
transformer [1] - 587:10
transmission [2] - 551:3, 589:15
travel [2] - 638:10, 638:18
travels [2] - 638:10, 638:14
treading [1] - 624:9
trespass [1] - 616:14
tribal [2] - 538:4, 538:15
tribes [6] - 536:15, 536:17, 536:19, 537:18, 537:23, 538:3
tried [1] - 570:24
trucks [1] - 591:20
true [5] - 544:15, 552:14, 607:16, 621:9, 640:11
trust [2] - 564:18, 605:10
try [9] - 540:23, 560:17, 561:18, 562:15, 584:3, 591:24, 605:21, 606:17, 620:16
trying [10] - 560:20, 581:12, 582:19, 601:9, 601:20, 602:22, 615:8, 622:13, 628:3, 630:3
Turbine [10] - 530:3, 530:4, 530:6, 530:7, 530:10, 531:4, 531:14, 531:16, 531:22, 532:5
turbine [49] - 535:22, 551:20, 559:10, 559:12, 561:9, 563:24, 583:17, 585:3, 585:16, 587:9, 593:11, 595:16, 595:23, 596:1, 596:16, 597:16, 600:9, 600:18, 600:23, 604:22, 605:4, 605:7, 605:9, 605:11, 605:18, 605:20, 605:24, 605:25, 606:9, 606:22, 607:4, 608:14, 609:14, 609:24, 610:1, 610:6, 610:7, 610:10, 610:23, 611:19, 612:17, 613:1, 613:10, 613:11, 615:10, 623:21, 625:17
turbine's [2] - 606:15, 613:10
turbines [31] - 541:10, 541:16, 546:12, 546:17, 546:18, 547:3, 548:11, 557:10, 557:12, 557:16, 564:20, 565:10, 567:1, 594:15, 596:18, 597:6, 599:12, 599:15, 603:20, 606:2, 606:7, 607:14, 607:20, 608:10, 612:23, 613:15, 622:15, 623:6, 623:15, 623:16, 625:19
Turbines [15] - 529:19, 529:21, 530:11, 530:12, 530:14, 530:15, 530:16, 530:17, 530:18, 530:19, 530:22, 531:15, 531:18, 531:19, 532:5
turn [2] - 547:23, 600:9
turned [1] - 620:1
TW-1 [1] - 529:14
TW-S-1 [1] - 532:3
TW-S-2 [1] - 532:4
TW-S-3 [1] - 532:4
TW-S-4 [1] - 532:5
twice [1] - 591:1
two [25] - 542:12, 544:1, 545:25, 547:4, 560:18, 561:6, 561:17, 572:6, 578:22, 582:12, 592:12, 592:14, 605:3, 607:19, 613:6, 613:11, 623:17, 626:16, 629:12, 630:10, 631:3, 631:4, 632:5, 633:5
two-tenths [1] - 547:4
TYLER [3] - 525:3, 527:6, 527:16
Tyler [4] - 529:14, 529:14, 532:3, 532:12
type [1] - 599:11
types [1] - 538:5
typically [5] - 570:6, 570:9, 591:18, 601:3, 629:19

U

U.S [3] - 570:14, 607:11, 626:21
UK [1] - 530:20
uncertainty [1] - 594:2
under [6] - 539:15, 571:3, 589:16, 592:8, 618:8, 621:3
Under [2] - 530:19, 531:19
understood [4] - 563:12, 578:8, 578:9, 624:7
undertaken [1] - 629:13
undertaking [1] - 548:1
undisturbed [1] - 541:17
unfortunately [1] - 634:20
Uniform [2] - 556:10, 556:17
unless [4] - 598:19, 604:19, 618:22, 634:1
up [22] - 543:11, 547:3, 548:12, 570:5, 575:4, 581:17, 582:25, 585:15, 588:2, 594:19, 605:17, 609:14, 609:15, 609:25, 610:2, 610:11, 614:19, 614:23, 617:11, 623:22, 623:25, 626:4
Update [1] - 530:20
update [3] - 582:11, 582:15, 619:22
updated [3] - 552:10, 553:13, 561:22
Updates [1] - 529:19
updates [5] - 551:16, 551:18, 552:17, 583:4, 583:5
uses [1] - 630:6
UTILITIES [2] - 523:1, 523:10
Utilities [5] - 550:20, 621:10, 621:13, 622:3, 623:1
utility [1] - 550:23
UTM [1] - 531:11

V

vague [1] - 555:25
valid [1] - 579:10
validity [1] - 578:19
Value [1] - 529:10
value [5] - 607:22, 607:25, 608:4, 608:6, 608:17
values [2] - 608:10, 609:15
Various [2] - 530:19, 531:19
various [1] - 538:3
vehicle [1] - 612:22
vehicles [1] - 556:20
verbally [2] - 598:4, 598:7
verify [9] - 561:25, 587:11, 587:16, 587:20, 599:8, 605:7, 605:10, 605:11, 605:14
versions [1] - 592:13
via [1] - 597:19
VICE [1] - 523:11
Vicinity [1] - 530:14
video [1] - 598:22
viewed [1] - 592:25
views [1] - 576:15
violate [1] - 620:18
violation [1] - 627:14
visual [1] - 595:13
Vitae [2] - 529:23, 531:14
Volume [1] - 523:9
votes [2] - 639:1, 639:2

W

wait [1] - 562:16
waiting [5] - 535:18, 535:20, 590:25, 592:4, 621:6
waiver [1] - 598:19
walk [9] - 542:13, 542:16, 542:18, 543:3, 549:14, 549:19, 555:7, 558:2, 558:3
walk-in [7] - 542:13, 542:16, 542:18, 543:3, 549:14, 558:2, 558:3
walk-ins [1] - 549:19
walked [1] - 559:19
wants [2] - 622:3, 638:5
warn [1] - 613:1
warning [1] - 612:25
warrant [2] - 586:8, 589:21
waste [8] - 583:17, 583:19, 583:25, 584:5, 584:9, 584:10, 584:12, 584:24
wastes [3] - 584:20, 585:7, 585:8
water [2] - 549:6, 580:6
waterfowl [1] - 607:9
Waverly [1] - 595:1
ways [1] - 613:6
weather [1] - 612:13
web [1] - 574:17
website [1] - 556:19
Western [1] - 541:9
wetland [1] - 546:11
whatnot [2] - 556:22, 599:5
wheelhouse [1] - 637:18
white [1] - 597:7
whole [1] - 544:2
whooper [1] - 607:18
whooping [9] - 552:8, 552:11, 553:16, 606:25, 607:7, 607:17, 607:18, 617:19, 618:2
WHOQOL [1] - 530:13
WHOQOL-BREF [1] - 530:13
WI [1] - 532:22
wildlife [3] - 540:5,

540:25
Wildlife [1] - 607:12
Wilhelm [4] - 529:14, 529:14, 532:3, 532:12
WILHELM [3] - 525:3, 527:6, 527:16
willing [3] - 600:18, 622:18, 623:2
willingness [1] - 541:11
Willow [2] - 549:21, 588:1
WIND [2] - 523:4, 523:5
wind [41] - 534:4, 540:2, 540:24, 543:2, 546:11, 546:14, 546:22, 547:17, 549:18, 551:2, 555:17, 559:16, 559:17, 564:20, 565:10, 566:21, 567:1, 567:21, 569:7, 574:5, 574:13, 574:21, 574:22, 577:6, 579:17, 584:12, 585:20, 589:18, 594:11, 594:19, 598:11, 599:15, 603:19, 608:9, 608:10, 609:11, 609:14, 610:4, 623:10, 623:21, 624:2
Wind [55] - 523:17, 529:19, 530:3, 530:4, 530:6, 530:7, 530:9, 530:11, 530:12, 530:14, 530:15, 530:16, 530:17, 530:18, 530:19, 530:22, 531:14, 531:15, 531:15, 531:17, 531:18, 531:19, 531:22, 532:16, 532:22, 534:4, 541:5, 549:21, 554:1, 561:21, 569:2, 572:20, 573:9, 580:14, 581:17, 582:3, 582:11, 582:13, 587:25, 593:15, 593:16, 593:20, 594:9, 594:14, 594:20, 594:23, 595:3, 596:9, 596:11, 596:17, 596:25, 597:13, 598:12, 607:2, 608:1
Winds [4] - 572:19, 593:6, 593:19, 593:21
winter [1] - 601:3
wise [1] - 619:13
wish [5] - 626:6, 626:23, 629:25, 630:8, 638:19
withdraw [2] - 573:6, 573:8
WITNESS [59] - 537:20, 538:12, 538:17, 538:24, 542:11, 542:18, 543:15, 543:19, 544:5, 544:11, 544:16, 544:19, 544:24, 545:9, 545:12, 545:15, 545:19, 546:2, 546:4, 546:7, 546:23, 547:12, 547:25, 548:5, 548:23, 557:19, 562:11, 562:24, 563:3, 581:16, 608:21, 616:1, 616:4, 616:11, 616:13, 616:20, 617:2, 617:18, 617:22, 618:2, 618:5, 618:17, 618:24, 619:5, 619:17, 620:4, 621:4, 621:7, 621:20, 622:11, 623:4, 623:21, 624:17, 624:22, 625:16, 626:3, 626:11, 627:6, 627:20
Witness [1] - 562:4
witness [18] - 534:8, 536:23, 537:5, 537:7, 538:25, 541:23, 542:2, 542:4, 550:11, 559:21, 562:7, 570:16, 571:22, 603:12, 608:4, 615:17, 628:10, 628:11
witnesses [7] - 548:17, 553:6, 570:12, 571:9, 577:2, 628:14, 628:20
WITNESSES [6] - 525:2, 526:2, 527:2, 527:9, 527:19, 528:2
WITTLER [1] - 640:5
Wittler [3] - 523:24, 640:17, 640:18
wondering [3] - 575:22, 598:21, 614:13
word [6] - 562:5, 583:16, 591:4, 603:3, 603:4, 623:12
wording [1] - 598:20
words [1] - 628:22
workers [1] - 543:4
works [1] - 622:6
worried [1] - 612:18
wrestled [1] - 629:18
write [1] - 634:20
writing [3] - 544:23, 629:14, 629:24
written [3] - 580:9, 580:23, 636:6
wrote [1] - 633:25
WTG's [1] - 531:11

X

Xcel [2] - 557:7, 622:4

Y

year [25] - 566:20, 568:21, 570:6, 570:10, 570:11, 571:3, 573:6, 573:10, 573:13, 573:16, 578:1, 578:3, 598:14, 598:18, 599:9, 599:13, 600:15, 601:3, 602:9, 610:1, 610:23, 619:2, 619:4, 625:4
years [12] - 545:25, 548:8, 551:1, 566:19, 580:16, 584:3, 585:10, 609:15, 610:10, 618:8, 623:17
yellow [3] - 601:1, 602:17, 602:18
yesterday [7] - 548:16, 552:9, 574:19, 593:11, 606:25, 607:21, 617:18
you's [1] - 638:17
younger [1] - 543:17
yourself [1] - 550:17

Z

Zone [1] - 531:11
zoning [4] - 568:24, 570:14, 630:4, 630:21

THE PUBLIC UTILITIES COMMISSION

OF THE STATE OF SOUTH DAKOTA

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The following transcript of teleconferenced proceedings was held in the above-entitled matter at the South Dakota State Capitol Building, 500 East Capitol Avenue, Pierre, South Dakota, on the 17th day of March, 2020, commencing at 9:30 a.m.

CHAIRMAN HANSON: EL19-027. And I need to know from Commissioners or parties if anyone needs to take a break at this point.

COMMISSIONER FIEGEN: I'm good.

MR. SCHUMACHER: That would be welcomed, Chairman Hanson. A two-minute break would be very nice.

CHAIRMAN HANSON: Well, if we have a break, people will need to call and (Inaudible) probably. So we're going to give it -- I show 11:07. So we will take it to 11:20. And I'll try to start this again at 11:20.

So if you will place your phones on mute and remember not to have chats around open mics., place yourselves on mute, and we'll start again at 11:20.

(A short recess is taken.)

CHAIRMAN HANSON: I will call the meeting of the South Dakota Public Utilities Commission for March 17, 2020, back to order. And the first item on the agenda is to make certain that I can be heard and that Commissioners are on the line.

Commissioner Fiegen, are you on the line?

COMMISSIONER FIEGEN: Commissioner Fiegen's present. Thank you.

CHAIRMAN HANSON: Commissioner Nelson, are you on the line?

COMMISSIONER NELSON: I'm here, and you're

sounding good.

CHAIRMAN HANSON: Great. I'll check with Crowned Ridge.

MR. SCHUMACHER: Miles Schumacher is here. Yes. Thank you, Commissioners.

CHAIRMAN HANSON: Are you aware of any of your parties that you need to have on the line that are not on the line? Are you good to go?

MR. SCHUMACHER: I'll let Brian speak for the rest of the group with him. Are you there?

MR. MURPHY: I'm here. Chairman Hanson, we have everybody on the phone that we need.

CHAIRMAN HANSON: Thank you, Mr. Murphy.

And, Staff, who will be representing Staff on this? Are you on the line?

MS. REISS: This is Amanda. I am on the line. And I believe we have Ms. Morey and Mr. Hessler and Mr. Kearney on as well.

CHAIRMAN HANSON: All right. And, Ms. Christenson, Ms. Mogen, Mr. Robish, whoever is representing your group, the Intervenors, are you on the line?

MS. CHRISTENSON: This is Amber Christenson. Allen Robish is not available today.

CHAIRMAN HANSON: Okay. Thank you.

And, Ms. Christenson, will you be the one representing the Intervenors?

MS. CHRISTENSON: We aren't represented as a group in this docket, but I do believe I'm the only Intervenor speaking.

CHAIRMAN HANSON: Thank you. Ms. Mogen, is that correct?

MS. MOGEN: Yes. Amber will be speaking for me.

CHAIRMAN HANSON: Thank you.

So in Docket EL19-027, a reminder that this is being transcribed so identify yourself before speaking. Cheri Wittler is transcribing the discussion so, please, if you plan to read something, pace yourself slow enough so people can follow through and type it.

In the Matter of the Application by Crowned Ridge Wind II, LLC for a Permit of a Wind Energy Facility in Deuel, Grant, and Codington Counties, the question before the Commission is shall the Commission grant, deny, or grant with conditions a permit for the construction of a wind energy facility to Crowned Ridge Wind II, LLC pursuant to SDCL 49-41B-25? Or how shall the Commission proceed?

We will go through this discussion today giving five minutes to each one of the parties, and then Crowned Ridge will have three minutes for a rebuttal.

We'll begin with Crowned Ridge. Then we'll go to Staff and then to the Intervenors. Excuse me. I misspoke. We will go to Crowned Ridge first and then Intervenors.

Mr. Swanson sent a letter indicating that he would not be here. I will ask at this time, Mr. Swanson, have you joined us?

So after the Intervenors, then we'll go to Staff. Then we'll go back to Crowned Ridge for their three minutes.

So we'll begin now with Crowned Ridge for your presentation.

MR. SCHUMACHER: Thank you, Chairman Hanson. Miles Schumacher for Crowned Ridge Wind II. The weight of the record in this proceeding shows that the Applicant has met its burden of proof.

On the first element of 49-41B-22, the project will comply with all applicable laws and rules, including the county setbacks required in Deuel, Grant, and Codington Counties.

Contrary to Intervenors' claim, the record in this proceeding shows the project complies with both Grant County ordinances. Intervenors themselves submitted as Exhibit AC-19 Crowned Ridge's Sound and Shadow Flicker Study that shows the project is in

compliance with the older Grant County ordinance.

(Inaudible) sound studies that show it will comply with the new ordinance, and these studies show compliance using cumulative impacts not to exceed 45 dBA for nonparticipants, while the old ordinance that Intervenors point to had a threshold for all receptors of 50 dBA.

Therefore, the only potential cumulative impacts that may have not been studied are on accessory structures such as barns where accumulative impact studies are not required by any state or county regulation.

By showing that we will meet both ordinances, the Applicant has met its burden of proof that it will comply with all applicable laws and rules.

The evidence also shows the project will not pose a threat of serious injury to the environment, nor to the social and economic condition of inhabitants, which is demonstrated by the Applicant being granted conditional use permits by the counties.

In addition, there is substantial evidence that the project will not pose a threat of serious injury to the environment or cultural resources by way of studies, surveys, and consultations with agencies and tribes.

Further, the Applicant has committed to equip

the project with an FAA approved ADLS for the life of the project. In this regard, on March 12, 2020, the Applicant filed with the FAA its application for approval of the ADLS.

In addition, Staff filed with its Brief an Amended Condition 29, which addresses postconstruction avian and bat mortality monitoring, which Applicants support and request that the Commission adopt.

Turning to economic impacts, the project will produce benefits to the community, including the payment of property taxes, lease payments, temporary jobs for 250 construction workers, and up to 7 to 12 permanent workers stationed in South Dakota.

As Applicant noted in its Brief in Footnote 14, there was one easement option that needed to be executed to maintain turbine location No. 85. That easement option has now been renewed and executed.

The record also shows the project will not substantially impair the health, safety, or welfare of the inhabitants. Applicant has appropriately minimized shadow flicker to 30 hours annually and the sound level to no more than 45 dBA at any nonparticipant's residence and no more than 50 dBA at any participant's residence.

Further, consistent with witness Hessler's testimony, Applicant agreed to use four alternative

turbine sites as a way to further reduce (Inaudible) sound.

Applicant presented a Ph.D. and medical doctor, both with many years of relevant experience that testified that the project will not substantially impair the health or welfare of the inhabitants. There is no evidence to the contrary.

Without any expert testimony in support, Intervenors argue that the Commission should limit nonparticipant sound to 40 dBA and shadow flicker to 15 hours annually and 15 minutes per day.

Similarly, the Ehlebracht Intervenors filed a legal brief replete with baseless legal notions on common law, trespass, and governmental takings and inappropriately cited testimony of witnesses in other dockets never proffered for cross-examination in this proceeding, and cited and quoted the Stanton NARUC paper that was objected to and not allowed to be part of the record here.

Accordingly, the positions of Intervenors are not supported by substantial evidence and have no legal basis and should not be relied upon in making a decision in this proceeding.

Applicant has presented substantial credible evidence showing the project will not substantially

impair the health, safety, or welfare of the inhabitants. Applicant has also shown that it will meet or exceed required setbacks established for safety and implement safety practices during construction, operation, and maintenance (Inaudible) the operation of the project 24 hours a day seven days a week. Thus, the evidence also shows that the project will not substantially impair safety.

The record also demonstrates that the proposed project will (Inaudible) --

CHAIRMAN HANSON: Slow up just a smidgen there, please.

MR. SCHUMACHER: Yes. Thank you.

The record also demonstrates that the proposed project will not unduly interfere with the orderly development of the region, which is supported by the granting of conditional use permits for the project by the counties.

In summary, Applicant has met its burden of proof and, thus, respectfully requests that the Commission grant it an energy facility permit.

Thank you.

CHAIRMAN HANSON: Thank you. And we will now turn -- I'll ask one more time if Mr. Swanson is on the line.

I don't believe anyone has joined us.

So we will turn to Intervenors. And I believe, Ms. Christenson, as I understand, you're carrying the load here today.

MS. CHRISTENSON: Thank you. Amber Christenson.

It is not -- excuse me. It is not for the Intervenors to establish the Applicant does not meet requirements for the permit. The burden of proof rests solely on the Applicant.

You as Commissioners are here to protect South Dakota by ensuring the proposed project will comply with all laws and rules. First and foremost, also you must ensure this project will not pose a threat of serious injury to the environment, nor will this project impair the health, safety, or welfare of the inhabitants. This Applicant has not met its burden in all three of the aforementioned instances.

There is no reliable sound study for the Commission to review. As referenced in my posthearing brief and the incorporated Findings of Fact and Conclusions of Law, the sound studies presented by the Applicant do not provide all necessary criteria for review. Accuracy is required by South Dakota rules. The Applicant just admitted during Mr. Schumacher's speech that their sound study is not complete.

The cement batch plant poses serious concerns for public health and safety and air quality. The Applicant is required by state law to provide evidence the project will comply with air quality standards and regulations. Yet they submitted no proof.

The safety of the public will be jeopardized by the placement of the proposed batch plant. During the recent construction of Highway 212 when this site was used as a batch plant Highway 212 was closed to through traffic. This highway is a major route for interstate traffic, and this project is scheduled to be built during peak tourism season.

Despite the plain language of SDCL 49-41B-25.2, the Applicant has not even applied for FAA approval for ADLS lighting. The Applicant has also testified to the Commission that the project is not funded. The abandonment of a half-built project could seriously impact the welfare of the residents.

The Applicant testified there was no profit and loss statement or balance sheet for the past three years. Yet there was a check issued by Crowned Ridge II to Grant County for their Application fee. And truth and accuracy is required by South Dakota rules.

The Applicant has not proven that it and its subcontractors are insured. The welfare of the

inhabitants shall be protected.

The Applicant has not provided an estimate of expected efficiency of the proposed project. The Applicant has not provided evidence that the project will comply with the standards and regulation of disposal of solid waste. The Applicant has no viable waste plan. The Applicant did not prove waste was not toxic.

The Applicant did not provide a description of the existing environment at the time of the submission of the Application. No preconstruction sound study, no air quality study, no infrasound or low frequency noise studies.

Typically property is the largest asset of any family. Staff Witness Lawrence submitted two properties who reported losses. One in this very project before the project is even permitted or built, and it is a substantial loss.

In my posthearing Brief, Findings and Conclusions, I suggested some conditions if the Commission had found the Applicant's burden had been met.

Staff Witness Hessler during the evidentiary hearing agreed that the Applicant should be able to meet a noise limit on this project for nonparticipants of 40 dBA. A 40 dBA nonparticipant noise limit will reduce annoyance and complaints. I quote, "Sleep deprivation

leads to adverse health effects. No question." That is a quote directly from the Applicant's own witness.

No shadow flicker for nonparticipants. At the very least this Commission should provide the four nonparticipating properties that are going to receive flicker protection by ordering zero flicker for their respective properties. A small amount of turbines moved a few feet or an alternate used would fix the issue for the people who came here for intervention and protection.

Construction noise restriction from 7:00 p.m. to 7:00 a.m. Unreasonable? No. Making the project more palatable to the residents? Yes.

A 1,500-foot setback from any public roadway to protect all travelers. I assume the reason is safety. Commissioner Fiegen addressed the interstate. Our local residents should be afforded the same concern for our state, county, and township roads.

In summary, Commission, Applicants have not simply been unpersuasive. Rather, Applicants have completely failed to meet their burden under state law. Having failed to meet their burden on nearly all, if not all, key areas related to this failed Application, it appears this Commission has no other alternative but in the best interest of South Dakota to deny the Applicant's

deficient Application.

Thank you.

CHAIRMAN HANSON: Thank you very much, Ms. Christenson.

I'll turn to Staff at this time. And we have Darren Kearney, Jon Thurber, Eric Paulson, Kristen Edwards, and Amanda Reiss.

MS. REISS: Thank you. This is Amanda Reiss for Staff.

Staff filed its Brief with the recommendation that Crowned Ridge Wind II has met its burden of proof and that the Commission should grant the permit so long as the certain conditions Staff proposed are attached to the permit. Those conditions include all of the conditions outlined in Staff's Exhibit S7.

We do have two slight changes to that proposal. And these were both mentioned in Staff's Brief, but I would like to highlight them for the Commission today. The first change is that Staff recommends that Condition 29 be revised.

The original proposal would have required two years of postconstruction mortality monitoring. Staff proposes that that be revised to require one year of postconstruction mortality monitoring to assess predictions of wildlife fatality risks at Crowned Ridge

Wind II. This is consistent with the voluntary U.S. Fish & Wildlife Service Land-Based Wind Energy Guidelines.

Xcel Energy has agreed that the funds set aside for the second year of postconstruction mortality monitoring would be reallocated to fund a three-year raptor study at Crowned Ridge Wind I and Crowned Ridge Wind II. Staff came to this revision in the condition based on guidance from South Dakota Game, Fish & Parks, and their further rationale is explained in Staff's Brief as well as the February 27, 2020, letter that's marked as Attachment A.

The second change to Staff Exhibit 7 is mentioned in our Brief as well, and Staff recommends that an additional condition be added -- this condition stems from discussions with Staff witness Morey at the evidentiary hearing regarding whether GF&P had authority to require Crowned Ridge Wind II to access the facility.

Despite the voluntary agreement from the Applicant, it was determined that GF&P does not have the authority to require access. Based on this analysis, Staff proposed and the Applicant agreed to a new condition. That condition is outlined in the Brief, but it essentially says Applicant shall allow Crowned Ridge Wind access to the project area to conduct a pre and postconstruction survey to evaluate the potential effect

on the Crowned Ridge Wind II project on the local prairie grouse population.

I would also mention today that Staff has been in communication with the Applicant regarding concerns due to the proximity of the batch plant to a daycare facility. While the daycare facility did not express concerns to Staff with the batch plant, the Applicant has, nevertheless, agreed to look at other options.

Intervenors Goodwin Group, as they identified themselves in the Brief, argued that granting a permit allowing any amount of noise or shadow flicker to cross onto the property of nonparticipants is interfering with their personal property rights. Staff is unconvinced by this argument.

For clarification, the PUC has limited jurisdiction. The PUC does not grant or alter property rights as they exist before a permit is considered or issued. Instead the PUC reviews Permit Applications to determine whether the Application meets the standard in state law, specifically whether the facility will comply with applicable laws and rules ensuring that the facility will not pose a threat of serious injury to the environment or social or economic condition of the inhabitants, that the facility will not substantially impair the health, safety, or welfare of the inhabitants,

and that the facility will not unduly interfere with the orderly development of the region.

As Goodwin Group mentioned in its Brief, the PUC's role is not to ensure that a project will in no way impact the community, but instead to ensure the project will produce minimal adverse effects. The evidence on the record shows no indication that imposing the noise and shadow flicker limits recommended by Staff would impair the health, safety, or welfare of the inhabitants of the project area, nor would it cause more than minimal effects to the Goodwin Group or other inhabitants of the project area.

The Goodwin Group's argument appears to rest on an idea that any amount of noise or light or blocking of light that crosses property lines should be considered a de facto easement. But this argument fails to provide any real support that a court has ever recognized this concept. Instead, courts have generally recognized that some interference is permissible, such as a road, a railroad, or airport, so long as interference does not render the property completely unusable.

Accepting Goodwin Group's argument would effectively prohibit the permit and construction of any energy project, an unreasonable result.

In the absence of any guidance from the Court

supporting Goodwin Group's argument, granting a permit with the proposed conditions ensures that the project will not pose serious injury to the environment, will not substantially impair the health, safety, or welfare of the inhabitants, and will not unduly interfere with the orderly development of the region.

Staff is available for any questions from the Commission and has nothing further at this time. Thank you.

CHAIRMAN HANSON: Thank you very much, Ms. Reiss. And, Crowned Ridge, you have three minutes for rebuttal.

MR. SCHUMACHER: Thank you, Chairman Hanson. Miles Schumacher. I'll be very brief.

First, we stand by the sound studies that were submitted on the record and believe they demonstrate we have met our burden. With regard to the batch plant (Inaudible) indicated we have agreed with Staff to --

CHAIRMAN HANSON: You cut out at the beginning of that sentence. Try 'er again.

MR. SCHUMACHER: I will. Thank you.

With regard to the batch plant, we have agreed with Staff that we will look at and find an alternative location for that and would confirm that our conversations with the neighboring landowner indicate

they have no objection.

With regard to the roads, we will file a traffic control plan in accordance with the conditions under Condition 8 of the proposed condition. Finally, as indicated in my opening comments, we did file the ADLS application with FAA on March 12, so that has been done. We believe we've met our burden and that it would be appropriate to grant the permit.

Thank you.

CHAIRMAN HANSON: Thank you. And we'll turn to Commissioner questions at this time. I just have one -- well, I have several, but I think those will be fleshed out as we go through the process. I do have one question of Ms. Reiss to start off with, and that is in pertaining to the -- the suggestions for the changes to Staff's Exhibit 7. The second one that you discussed you start out with stating, "The Applicant shall allow," and you state, "Crowned Ridge Wind, LLC access to the project."

I'm curious why that does not read, "Applicant shall allow Game, Fish & Parks access" or as opposed to Crowned Ridge Wind access.

MS. REISS: Sure. Thank you for the question. And I can provide a beginning answer, and, Darren Kearney, if you have more to add, please jump in.

It is my understanding that Crowned Ridge Wind

will be conducting this study, and so the condition is specific to allow them access. I believe Staff would be open to amending that to include Game, Fish & Parks as well as Game, Fish & Parks believes it is necessary.

CHAIRMAN HANSON: Thank you very much. It just seems strange that Crowned Ridge Wind II, which I recognize is a project in -- that they're two different entities, but it's just saying that Crowned Ridge would allow -- I would like to see them required to allow Game, Fish & Parks as well so I'll just throw that out there at this juncture.

Are there other questions by Commissioners?

COMMISSIONER FIEGEN: This is Commissioner Fiegen, and I do have questions, but I don't know if Commissioner Nelson wanted to go first or if I can just ask a couple.

COMMISSIONER NELSON: Well, you can go. The only question I had was for Mr. Swanson, and he's not here. So go ahead.

COMMISSIONER FIEGEN: Thank you, Mr. Chairman and Vice Chairman. There's just a couple of questions, and Staff, first of all, answered my question on Condition 29 so I appreciate that.

Another question I have -- actually this is for Staff and Crowned Ridge II. On Condition 26C, that talks

about the sound study. But, if you remember, in December I added something to the sound study so I want to make sure this is a friendly amendment to the condition, is that the public liaison officer will assist contacting nonparticipating landowners for permission to test noise levels on their properties.

I just wanted to get confirmation that the Staff and Crowned Ridge would be okay with that.

MR. MURPHY: Commissioner Fiegen, this is Brian Murphy for Crowned Ridge. Crowned Ridge is okay with that add to that condition.

COMMISSIONER FIEGEN: Thank you.

MR. MURPHY: And that would be our understanding.

COMMISSIONER FIEGEN: Thank you.

CHAIRMAN HANSON: Commissioner Fiegen.

MS. REISS: This is --

CHAIRMAN HANSON: Excuse me. Go ahead, Ms. Reiss.

MS. REISS: This is Amanda. Did you need further input, Commissioner Fiegen?

COMMISSIONER FIEGEN: Sure. I'm sure the Staff's okay; correct?

MS. REISS: Yes.

COMMISSIONER FIEGEN: Okay. And the other

question I have for Staff is on Condition 34. And I had questions right away and then I think you're clear enough in Condition 34 and that is that the Air Detection Light System is required before starting commercial operation. Is that your understanding? Correct? That they cannot start commercial operation until the detection system has been put on?

MS. REISS: Thank you. This is Amanda Reiss for Staff. And, Mr. Kearney, again, if you have additional thoughts, please jump in. But, yes, that is Staff's intent with this condition.

COMMISSIONER FIEGEN: Okay. Those were my only questions. And I guess I only have one amendment then for the conditions.

Thank you.

CHAIRMAN HANSON: Commissioner Nelson.

COMMISSIONER NELSON: I have no questions, but I do have a motion whenever you're ready.

CHAIRMAN HANSON: I have a question. I believe we have Game, Fish & Parks on the line; is that correct?

MS. MOREY: Yes. This is Hilary Morey with Game, Fish & Parks.

CHAIRMAN HANSON: Hi, Hilary. Excuse me. Ms. Morey.

There's a number of questions pertaining to air

quality, water quality, environmental quality, et cetera. Does the Game, Fish & Parks -- I know you're not DENR. Do you have any concerns over effects on wildlife with this project as it's being proposed?

MS. MOREY: In relation to air quality and water quality?

CHAIRMAN HANSON: In relationship to the effect on animal life from -- obviously, if air quality -- air, water, land is affected in some fashion, it's going to affect wildlife. I'm just wondering if you're concerned about those effects and their not -- well, let me rephrase that.

Are you concerned with the effect of this project and -- that it may adversely affect wildlife because of its effect on air, water, environment in general -- I know you're concerned with it, but is there a change that needs to take place on the S7, the Staff's Exhibit 7?

I know that you've negotiated a variety of things, but I'm wondering whether or not there's anything in addition that you see a need for a change.

MS. MOREY: I guess our -- excuse me. This is Hilary Meyer. Or Hilary Morey of South Dakota Game, Fish & Parks.

Our main concern -- and we've made this clear in

a number of meetings with the Applicant and in previous dockets as well, but our main concern of wind energy projects is impacts to grasslands and fragmentation of grassland landscapes.

Our primary concern there would be grassland nesting birds such as prairie grouse, chestnut-collered longspurs. These species guild, these grassland nesting birds, have been in decline over the last 20 years so those are our main concerns there.

In regards to air quality and water quality, that would be under the realm of South Dakota Department of Environment and Natural Resources so I can't really speak to that. That is not my expertise. But in terms of effects on aquatic organisms, these wind energy projects generally have minimal impacts to aquatic resources, specifically when they site their turbines and access roads outside of waters of the United States.

CHAIRMAN HANSON: Thank you very much, Ms. Morey. Yes. We recognize that the DENR will have the air, water quality, et cetera.

What I was concerned with is -- and you explained it well -- effects on the air and water will, of course, affect wildlife. So I was concerned from that standpoint. But your answer is suffice for that question.

Thank you very much.

I have a motion as well; however, I'll certainly allow Commissioner Nelson to make his motion. And I assume it has to do with Staff's Exhibit 7 and amendments to that.

So Commissioner Nelson.

COMMISSIONER NELSON: Well, Commissioner Hanson, I think we've done this often enough that you are exactly right.

I will move in EL19-027 that the Commission grant the permit for construction of a wind energy facility to Crowned Ridge Wind II, LLC pursuant to SDCL 49-41B-25 and attach the conditions as found in Staff Exhibit S7.

If I might continue, I would move to amend my motion with a series of what I am going to call Nelson proposed amendments. These are in written form, and at this point we're going to have to take just a little bit of a pause for Joy Lashley to e-mail that out to everybody involved here, put it on the website.

Commissioners, I am going to send it to you as we speak, and I think we just need to be at ease until everybody gets that before I proceed with describing what's in those amendments.

Commissioner Hanson, are you still there?

CHAIRMAN HANSON: I am. And I'm assuming these are, for the most part, the amendments that Karen sent out as no doubt to each one of us -- we assume so -- as suggestions of -- I don't see all of them that she mentioned.

COMMISSIONER NELSON: Yeah. And as soon as everybody's got it, I'll go through them one at a time and kind of explain the origin of each one.

CHAIRMAN HANSON: Mr. Schumacher. Excuse me. Well, let's see how many -- we have 22 persons on the phone right now for this docket.

Is there anyone who has not received this information?

MR. SCHUMACHER: Thank you, Chairman Hanson. Miles Schumacher.

I have not received it. I have the docket up, and I don't see it posted there yet. I can't speak for Mr. Murphy as to whether or not he and the remaining Crowned Ridge representatives have it yet.

CHAIRMAN HANSON: All right. Well, we'll give it a few more minutes, and then we will start to go through it. It's a number of --

COMMISSIONER NELSON: Yeah. I think it's probably self-explanatory enough that I can do it -- and just for the public's benefit, I e-mailed the document

just now to my two fellow Commissioners so they've got it. Our Staff is in the process of e-mailing it to the docket list and posting it on our website, but because we're working remotely, that may not be happening as smoothly as we hoped.

CHAIRMAN HANSON: We'll give it a few more minutes here, and then we will start with it. I don't think it's going to be difficult by any means to understand. I think we've discussed a number of these items at this juncture so we'll start here in just a couple of minutes.

MR. SCHUMACHER: Thank you, Chairman, Miles Schumacher. I will verify (Inaudible).

CHAIRMAN HANSON: Okay. You cut out right after the word "verify."

MR. SCHUMACHER: I have received it. Thank you.

CHAIRMAN HANSON: Thank you.

Have the other parties -- I assume Staff has received it. Ms. Christenson, have you received it?

MS. CHRISTENSON: Yes. Thank you.

CHAIRMAN HANSON: Thank you.

Staff?

MS. REISS: Staff has received it.

CHAIRMAN HANSON: Thank you.

Commissioner Nelson, would you proceed then?

COMMISSIONER NELSON: Certainly. And I've just been advised by Staff that it has been posted to the website, but our website has to go through a replication process before it actually appears out there. And now I'm being told that it's there. So I think we're good to go.

CHAIRMAN HANSON: Let's call the amendments to Staff Exhibit S7 -- you may come up with another amendment as we go through this process. Please proceed.

COMMISSIONER NELSON: Thank you.

So, to begin with, I believe that the Applicant has met their burden under state law and are, therefore, entitled to receive a permit, hence the motion. Staff did a great job of putting together their Exhibit S7 as a foundation for the conditions that need to be attached.

However, through discussions at the hearing and since the hearing, there are several items that have bubbled up that I think demand that S7 be amended and, hence, my proposal.

And I'll just go through this, and if people have questions, I'm certainly happy to answer that.

No. 1, inserting the word "itemized." That's something we talked about during the hearing.

No. 2, providing just a little bit of additional information that the landowners -- that they be given the

Order in addition to the Permit. I think that additional information is good.

No. 3 is the change to paragraph 29 that Staff has already talked about. I think I've taken that language verbatim from what Staff presented. And, Ms. Reiss, if I haven't, please let me know.

No. 4 deals with paragraph 34. And this is a complete replacement for paragraph 34. But I think it gets at the question that Commissioner Fiegen asked just a little bit earlier in that I want to be very clear that we are requiring the Applicant, first of all, to utilize an ADLS. Secondly, that they be required to apply for their permit from the FAA in enough time to receive that permission by the commercial operation date, and then that it, in fact, be operational by the commercial operation date.

And so I've just expanded upon that requirement, making sure that we all understand that we intend it to be there by commercial operation date.

No. 5, I'm proposing to delete paragraph 40. As we've looked at that paragraph, we think we already have the authority to do what's outlined there, and there's not any reason to spell that out a second time.

No. 6 is the whooping crane amendment language that was talked about during the hearing and was agreed

to by Staff and by the Applicant. So I've included that.

Commissioner Hanson, you can give me a point for actually including a whooping crane amendment maybe for the first time?

No. 7, in looking through S7 I think there's some grammatical things that maybe before the final order is written can be cleaned up just a little bit. Nothing subjective, but just some grammatical changes.

No. 8, the Intervenors, and I don't recall which Intervenor, suggested that we require that the completion of the LNTE blade attachments on Crowned Ridge Wind I turbines be completed before commercial operation of Crowned Ridge Wind II. I think that's a reasonable requirement. In order for the sound modeling to be accurate, that does need to happen. And so I've included that as a requirement.

Now I'll say from a practical perspective, I think it's a moot issue. I am very confident that the LNTE blade attachments will be in place much prior to Crowned Ridge Wind II being ready to go commercial, but let's just put it in there and spell it out.

No. 9, this comes from Applicant witness MaRous who indicated that the project owner would be willing to cooperate with ag spray applicators to shut down turbines as needed for effective and safe spray

application and operation. So we've just included that in the conditions.

No. 10, and this is something -- a provision that Staff spoke to already today. Again, Ms. Reiss, I think I've got the language right here, but if it needs to be changed in any way, you can let us know.

And then I'm going to add a No. 11 on here just to keep this easy. Let's include Commissioner Fiegen's paragraph 26C, a public liaison suggestion. Let's just include it in here so we can look at all of this at the same time.

With that, I'd be happy to answer any questions about any of these individuals. And if any of my fellow Commissioners want to pull any of these out and deal with them separately as opposed to an omnibus group, I'm fine with that too.

CHAIRMAN HANSON: Thank you. And I would like to have Commissioner Fiegen's -- on its own, let her make that motion and explain it.

There are a number of areas that I have concerns with. And I will give you a point for adding the whooping crane at the end. Obviously, I was going to if you had not, but I appreciate your coming around to my side of the world on supporting the birds.

Commissioner Fiegen, do you have -- I have some

comments on the motion, but I'm going to hand over the mic. to you.

You have the floor, Commissioner Fiegen.

COMMISSIONER NELSON: And, Chairman Hanson, if I could, I will just voluntarily pull back that 26C portion of that and let Commissioner Fiegen handle that. Not a problem.

CHAIRMAN HANSON: All right. Commissioner Fiegen.

COMMISSIONER FIEGEN: I am still reviewing the amendments so I will have comments in a little bit. And it doesn't matter if my amendment's on there or not. I'm okay either way.

CHAIRMAN HANSON: Yeah. I'd like to print a paper copy of this so that I can -- so that I can work on it. I'm going to -- I have to send this over to a different computer, turn that computer on and then send it to a -- my printer here. Three computers on my work area and two iPads and two phones gets a little bit challenging at a time like this.

So if we could take just maybe 10 minutes here so that I can make a copy and anybody else who's in that position can look this over. Thank you. I'm going to go on mute here and take care of that.

(A short recess is taken.)

CHAIRMAN HANSON: Okay. As we discuss it -- I know I said 10 minutes, but as we discuss it I think people will be able to follow along.

Commissioner Fiegen, do you have any questions or discussion on the motion?

COMMISSIONER FIEGEN: If my amendment wasn't put on and Commissioner Nelson took it off, I do move to amend the section of -- oh, all the sudden I can't find it. The section on the public liaison officer, 26C, by adding, "The public liaison officer will assist in contacting nonparticipating landowners for permission to test noise levels on their properties."

CHAIRMAN HANSON: Great. Okay. And I'm going to accept that as a motion to amend.

And we've discussed it. But is there any discussion on the motion?

COMMISSIONER FIEGEN: No. I think all of us probably agree with that and the two parties -- or the three parties I'm assuming all agree also.

And for the other conditions, while I looked through all of them, I guess I -- actually there are -- I think the -- 34 is probably written a little bit more clearly. And I want to make sure that was the case so I reread that. I wanted to make sure 40 could be deleted, and I do believe Commissioner Nelson is proper on that.

And then I certainly appreciate the amendment on the sprayers, the aircraft sprayers that spray for our agricultural people, and I appreciate that amendment. So thank you.

CHAIRMAN HANSON: Thank you. Any further discussion on the motion? Looks like a friendly motion.

Hearing no further discussion on the motion to amend, Commissioner Nelson.

COMMISSIONER NELSON: Aye.

CHAIRMAN HANSON: Commissioner Fiegen.

COMMISSIONER FIEGEN: Fiegen votes aye.

CHAIRMAN HANSON: Hanson votes aye. The motion carries.

That brings us to further discussion, motions to amend. I'm going to ask that on No. 10 of the list of amendments that after the word on the first line, "Applicants shall allow Game, Fish & Parks and Crowned Ridge Wind," I'd like to see it very plain that GF&P has access to the project area. That's all the discussion I have on that.

Any further discussion on that motion to amend?

Hearing none on the motion to amend, Commissioner Nelson.

COMMISSIONER NELSON: Aye.

CHAIRMAN HANSON: Commissioner Fiegen.

COMMISSIONER FIEGEN: Fiegen votes aye.

CHAIRMAN HANSON: Motion carries.

Brings us back to further discussion on the main motion. Commissioner Fiegen, Commissioner Nelson -- Commissioner Nelson, do you wish to amend your own motion here or --

COMMISSIONER NELSON: Well, no, I don't, but I think we're back to -- I don't think we're back to the main motion because I don't think we voted on these 10 items yet. So I think we're on my motion to amend.

CHAIRMAN HANSON: Correct. You're correct. We're back on the amended motion to amend.

Anything further, Commissioner Fiegen? I have a few items if you --

COMMISSIONER FIEGEN: You know, I have went through them, and this is Commissioner Fiegen again, and I believe these are correct. Thank you.

And I also appreciate the new paragraph on the LNTE blades. So I appreciate that too. Thank you.

CHAIRMAN HANSON: Yes. Absolutely.

I'm a little concerned with item No. 7. It says minor grammatical changes. I'd like to phrase that a little bit differently, but I don't want -- some of the areas where I see that we need some changes -- you know, I think once we get back to the main motion I'll have

some motions at that point so I won't -- I guess I won't worry about that at this juncture.

I'm going to look at -- there were a couple of things that I have concerns with. And, no, I do not have concerns with the whooping crane.

COMMISSIONER FIEGEN: Mr. Chairman, I do have a question for Commissioner Nelson on the paragraph 34.

CHAIRMAN HANSON: Please proceed.

COMMISSIONER FIEGEN: I see FSA in there. Is that correct, or is that a state officer thinking about FFA?

COMMISSIONER NELSON: Yeah. That's me thinking about FFA, and that does need to be FAA. And let's just consider that a friendly amendment. Thank you.

COMMISSIONER FIEGEN: Okay. Thank you.

CHAIRMAN HANSON: Would you point that out. I was looking at -- oh, I see it. Twice it says FFA. I assume that's under minor grammatical changes. Oh, it's on there just once. Okay.

Too many papers to deal with.

Item 29, did you make a motion on -- there it is. Replace paragraph 29.

I agree with that in its entirety, and I understand that -- with one exception. And I understand the negotiation that took place with -- between Staff,

GF&P, and the Applicant. I just have never been comfortable with a one-year postconstruction -- one year gives us such a short moment in time and the effects.

And so I would like to leave that as a two-year and just leave everything else the same as it's presented there. I think you did a real good job of putting that together, and certainly Karen appreciates your work on this.

Commissioner Nelson, I hope you don't have any heartburn with that, but I will move that -- I move that in paragraph 29 to supplant the word "one" in the first line with the word "two" so that it reads, "Applicant agrees to undertake a two-year independently conducted postconstruction."

Discussion on that motion. I guess I've already discussed it. I just feel it's too short of a window in time to have a real decent study of any sort. I'd like to see three to four years. But a one-year just causes me real concern.

Any further discussion on that motion?

COMMISSIONER NELSON: Well, yeah. No hard feelings, but I'm probably going to oppose it. You know, and Staff and Game, Fish & Parks, you know, looked at what they thought was needed. You know, one year is what they came up with so I'm going to stick with that for

now.

CHAIRMAN HANSON: Yeah. I agree. I understand that they went through that process. I think it was the type of a deal where they felt they could -- well, they definitely did through their discussion, that they traded the two year to a one year in order to get the Applicant also agrees to fund a federal grant match. And I think we're in a position where we're able to accomplish both. So that's why I went with that.

Thank you, though, for the comment.

Any further discussion on the motion to amend the -- go ahead.

COMMISSIONER FIEGEN: Thank you, Mr. Chairman. Commissioner Fiegen here.

It makes me a -- I appreciate what you're doing, but I would like to ask Crowned Ridge because I know there's negotiations and give and take on settlement. And I appreciate that they were willing to do the additional LEC study.

So I just want to talk to Crowned Ridge if they'd be willing to do that. Because I know during settlement discussions there's give and take. So if I could ask the question to Crowned Ridge.

MR. MURPHY: Thank you, Chairman Hanson, Commissioner Fiegen. I would like Kim Wells to provide

you some context and background of the discussions. And I think that will help.

So, Kim, can you -- are you still on?

MS. WELLS: I am. Thank you for the opportunity. I would just like to highlight that the rationale for proposing the amendment to Condition 29 was because Crowned Ridge, Xcel, and GF&P all agreed that there was existing data in the scientific literature to look at the effects of wind on bird and bat mortality. So there is data to draw on.

We also agreed that there's a lot of South Dakota data. We agreed that because there's already two years being completed at Crowned Ridge I, we didn't think that a second year at Crowned Ridge II offered compellingly new or different information. And, third, we in conjunction with Xcel and GF&P thought this was a more useful study for the funds to meet a need that GF&P articulated.

I'm sure Hilary would be able to articulate more of how that fits into the State Wildlife Action Plan, but in short those are the three reasons why we came to this amendment to Condition 29.

Thank you.

CHAIRMAN HANSON: Commissioner Fiegen.

COMMISSIONER FIEGEN: Thank you, Mr. Chairman.

Commissioner Fiegen here. I'm going to actually -- although I agree a lot of times with Commissioner Hanson, I'm going to oppose his amendment today because I believe the settlement discussion, and we got to hear part of it just now, relieves me of that concern.

So when I read this I also became very concerned with the one year. And so I kept on going back to the filing, and I became more comfortable after I read more of the filing. So I'm going to oppose it but certainly appreciate the amendment.

CHAIRMAN HANSON: Thank you.

Ms. Morey, just a short question. We don't need to have other people testify for you, but I know that there was a significant negotiation that took place, and I know the position that you finally promised on.

However, you did originally ask for a two-year. Do you feel there was good reason to ask for a two-year?

MS. MOREY: This is Hilary Morey with South Dakota Game, Fish & Parks. So when I originally prepared my testimony for this docket we asked for the two years of postconstruction mortality monitoring. As you mentioned, that two years gives you a little bit more of a spacial time frame to look at the effects of wind energy impacts because these projects do last for 20 to 30 years.

However, once we started working with Crowned Ridge I on the grouse study, we started to come up with some additional objectives that were of interest to us as Game, Fish & Parks to look at specific species interactions with wind energy projects.

So we felt that this was a good compromise because we would still get one year of that postconstruction monitoring and, as Ms. Wells mentioned, we'll have the two years of postconstruction monitoring of the adjoining Crowned Ridge I wind facility. So we're really excited about this opportunity to conduct this raptor study at both Crowned Ridge I and Crowned Ridge II footprints.

This is some research that was done about 20 years ago in southeastern South Dakota so we would essentially be able to repeat this research in a new location and 20 years later to look at the impacts of these facilities on our raptor populations in the state.

CHAIRMAN HANSON: Well, that's great news. And that was a good compromise that you made from that standpoint.

Would a two-year independently conducted postconstruction avian, et cetera, et cetera -- would a two-year give you a much better idea of -- would it give you a better study?

MS. MOREY: This is Hilary Morey for Game, Fish & Parks. The two studies are pretty different, I guess. So the postconstruction mortality monitoring would only monitor animals, bats and birds, that are killed by operating turbines. Whereas this raptor project would actually look for raptor use within the project area.

So I don't think that we can use the postconstruction mortality monitoring necessarily to add to the study. I'm not 100 percent sure. I would have to speak with our project collaborators. But they're two -- excuse me.

CHAIRMAN HANSON: I think you're misinterpreting my question. I'm not asking you to give up anything. I'm asking simply if you -- if you got your cake and got to eat it too, in other words, you were able to keep the raptor study and everything that's been agreed to up to this point, you simply would have two years instead of one year, would that be of significant benefit?

MS. MOREY: This is Hilary Morey with South Dakota Game, Fish & Parks.

Yes. I understand your question now. And we would -- we would like to fund this avian predator study. That's our number one priority. And I guess it's up to the Applicant if they can fund both the study and a second year of postconstruction mortality monitoring for

the project. But there would be utility in both of those.

CHAIRMAN HANSON: Thank you. Appreciate your answer.

It hurt a little bit when you said something about avian mortality wasn't significant or something of that nature. I forget what it was.

All right. Well, thank you for that. Appreciate it.

We're back to the motion to amend. And I've heard my colleagues and, nevertheless, I hope that you both understand that the Applicant does have enough dollars in their pocket to handle one more year of this and it would be a much better study and hope that you'll have seen the light.

So, on that, is there any further discussion?

If not, on the motion to amend, going from one year to two year, Commissioner Nelson.

COMMISSIONER NELSON: With my sunglasses on, I'm going to have to vote no.

CHAIRMAN HANSON: Commissioner Fiegen, did you take your glasses off?

COMMISSIONER FIEGEN: Fiegen votes no.

CHAIRMAN HANSON: Well, Commissioner Hanson votes aye. And the motion fails. Ouch.

Okay. Back to the discussion on has anyone -- I still have one motion to amend, but I'd like to know if anybody else has anything first. If not, I have a question first, and then perhaps the motion.

On the main motion it shows No. 5, delete paragraph 40. And I was in love with that paragraph because I felt that it provides a hammer that the permit is conditioned on the Applicant and any future owner, that the permit can be revoked by the PUC. It makes it very, very plain. And I want it very plain that the project can be revoked by the PUC if conditions are not met.

It seems like we have had some -- well, I know we have had some discussions and concerns about semantics and whether or not the PUC can revoke permits so I'll ask the attorneys, is it very clear within this document -- if we do not have paragraph 40, is it very clear, and where is it very clear, that the PUC can revoke the permit if a condition is not met? So whomever -- whichever attorney can answer that question, I appreciate it.

MS. CREMER: This is Karen Cremer. Are you looking to Staff and Crowned Ridge, or are you looking to Adam and I?

CHAIRMAN HANSON: Well, I'm looking to you and

Adam. Certainly you're the ones who will be making the decision. But if Crowned Ridge were to attest to the fact that, yes, here's another paragraph that absolutely makes it conclusive that you can remove the permit, then, of course, that would be on record and that would be ironclad.

However, in the absence of that, yes, Ms. Cremer, I'd love to hear from one of you on this.

MS. CREMER: Well, with that then, I'll let Crowned Ridge go.

CHAIRMAN HANSON: Okay. Mr. Schumacher, is there somewhere within this document that it is absolutely clear that the permit can be revoked by the PUC if a condition is not met by the Applicant or an owner?

MR. SCHUMACHER: Yes. This is Miles Schumacher. I don't see the specific language, unless it's read in conjunction with the statute that was referenced in one of our earlier dockets today.

MS. CREMER: And this is Karen Cremer.

CHAIRMAN HANSON: Thank you.

MS. CREMER: And, with that, I would say I would agree with Miles. To me, the first two sentences are already covered by statute. It even references the statute. So that seems unnecessary to me to have those

first two sentences.

As to the last sentence, to me that's covered in 41.

I think where we're running into problems in prior dockets, you know, that we heard earlier today is it has to do with jurisdiction and who has jurisdiction and not the fact that we can't revoke. Clearly we can. It becomes a matter of when we could do that. And so that would be my take on paragraph 40.

CHAIRMAN HANSON: Thank you.

With great trepidation, I will not make a motion then to exclude that. I keep wrestling with it even after I say that because I don't want to build things for the present people that are involved. I don't want to build things for other areas that may be changed somewhere.

You know, if we don't specify it here and something changes elsewhere, then we lose that opportunity to make it very clear. And I don't like to build things from the standpoint of the three Commissioners who are here now because there will be three different Commissioners many years from now. And so I really, really struggle with deleting paragraph 40.

I'm going to ask my fellow Commissioners. It may be redundant at this juncture, but I'm wrestling with

it so much that I'm going to ask you to support it in deleting that portion in No. 5 where it states to delete paragraph 40. I'd like to leave paragraph 40 in the document.

And you can tell I'm not vacillating a lot, but I'm falling back and forth on this. I just am too uncomfortable with deleting it. So that's my motion.

Any discussion from my fellow Commissioners?

COMMISSIONER NELSON: Yeah. This is Commissioner Nelson. I hear where you're coming from but, you know, I've got my statute book open to 49-41B-33, and it's crystal clear to me that we have that authority by statute. I don't think we gain anything by putting it in the conditions. So I'm okay with it as it is, taking that paragraph out.

CHAIRMAN HANSON: Thank you.

COMMISSIONER FIEGEN: Mr. Chairman.

CHAIRMAN HANSON: Commissioner Fiegen.

COMMISSIONER FIEGEN: Thank you.

I would like to ask Staff for their legal opinion. Because I believe, like Commissioner Nelson, we're okay. But are they concerned if that statute would be deleted by the state legislature in upcoming years and that's why we should have this? Because, otherwise, I fall in line with Commissioner Nelson.

MS. REISS: Thank you. This is Amanda Reiss for Staff. And I don't think that Staff has that concern when we included that condition in our proposal. I believe if I remember correctly, this condition stemmed from some discussions with Intervenors, and Staff attempted to craft a condition that would address some of their potential concerns.

I think Staff agrees that the statute identified does give the PUC authority to revoke a statute if required. The one thing that this condition does address that the statute does not is in regard to the individual turbines. But if the Commission would like to remove this condition, I believe we could potentially address individual turbine concerns in a different manner, if necessary.

COMMISSIONER FIEGEN: So, Commissioner Hanson, if I could just have a couple minutes to look at everything one more time, I'd appreciate that.

CHAIRMAN HANSON: Please go ahead.

COMMISSIONER FIEGEN: So other people can talk if they want to. I just want a couple of minutes.

CHAIRMAN HANSON: Okay.

(Pause.)

COMMISSIONER FIEGEN: Mr. Chairman.

CHAIRMAN HANSON: Yes.

COMMISSIONER FIEGEN: This is a hard one because I certainly appreciate how Staff talked about trying to work with Intervenors. And that softens my heart, but I still don't think we need this. But I appreciate Staff's effort and Crowned Ridge for agreeing.

But my goal is to make this as clean as possible, and I don't think 40 is needed. I've tried to look at that in the last hour a couple times and I believe it's unnecessary but I certainly appreciate the effort of working with the Intervenors.

CHAIRMAN HANSON: Thank you. I will look for any further discussion on the motion to amend by deleting the deletion of paragraph 40.

Any further discussion on the motion to amend the amendment -- proposed amendment?

Hearing none, all those in favor will -- well, Commissioner Nelson.

COMMISSIONER NELSON: No.

CHAIRMAN HANSON: Commissioner Fiegen.

COMMISSIONER FIEGEN: Commissioner Fiegen votes a very soft no.

CHAIRMAN HANSON: Commissioner Hanson votes a very hard aye.

Motion fails. I hope that doesn't bite us in the future.

We are back to the amended motion to amend. Any further discussion on the amended motion to amend?

Hearing none --

COMMISSIONER FIEGEN: So I just have a question. Are we to the main motion now?

CHAIRMAN HANSON: No. We are on the motion --

COMMISSIONER FIEGEN: Okay.

CHAIRMAN HANSON: -- of the S7 exhibit.

COMMISSIONER FIEGEN: Thank you.

CHAIRMAN HANSON: That has been amended.

COMMISSIONER FIEGEN: Thank you.

CHAIRMAN HANSON: Editorial comment. It hasn't been amended enough, but it's been amended. We're back to the motion to amend as amended. Any further discussion?

Hearing none, Commissioner Nelson.

COMMISSIONER NELSON: Aye.

CHAIRMAN HANSON: Commissioner Fiegen.

COMMISSIONER FIEGEN: Fiegen votes aye.

CHAIRMAN HANSON: Hanson votes aye. Motion carries.

We're now back to the main motion as amended. Further discussion on that. Well, I'd turn to Commissioner Fiegen. Do you have any motion --

COMMISSIONER FIEGEN: Thank you. Thank you,

Chairman Hanson. I do have discussion on the main motion when you're ready.

CHAIRMAN HANSON: Okay. Do you have any motions to amend at this point?

COMMISSIONER FIEGEN: No. No.

CHAIRMAN HANSON: Okay. I have one motion to amend. I probably have more than one, but just to make some verbiage clear -- but I have a subjective motion.

Throughout the document of S7 we refer to Applicant shall, Applicant will, Applicant agrees, et cetera, et cetera throughout the -- and I'm not about to change all of those Applicants to Applicant or future owner. However, I would like to add -- so that it applies prospectively to all future owners, whomever they may be, I'd like to add an additional paragraph that states these permit conditions shall apply to any future owner who takes possession pursuant to 49-41B-29.

And this is something as I was rereading this last night in preparation for today's meeting rather than e-mailing Adam or Karen at 2 o'clock in the morning I decided I'd just write down something. I called Karen this morning early and said that was my concern. What do you think?

I had a different paragraph written up. She suggested that this would -- and certainly as an attorney

she writes law much better than I. So this -- the purpose of this is to make certain that any -- all future owners are very clear, again -- I've been in contract businesses for a very, very long time. I just like things -- as you can tell from my other amendments, motions to amend and concerns, that it would make it very clear that this obligations of these conditions are on the shoulders for all future owners of the property.

So the paragraphs states that, "These permit conditions apply to any future owner who takes possession pursuant to 49-41B-29." That's all the discussion I have on that. I make it as a motion and the main motion as amended.

Discussions, questions?

COMMISSIONER NELSON: Commissioner Nelson -- go ahead, Commissioner Fiegen.

COMMISSIONER FIEGEN: No. I'm just -- all I wanted to say is thank you, Commissioner Hanson, for bringing that to our attention. I totally agree with you on it, and I assumed it was already done so I appreciate you bringing that to our attention.

Thank you.

COMMISSIONER NELSON: Yeah. So here's my question. Yeah. I certainly agree it, but it looks to me like 49-41B-29 states that we, the PUC, can't transfer

a permit to anyone unless they agree to abide by all of the conditions. So how does this motion to amend add anything beyond what the statute requires?

CHAIRMAN HANSON: I'll ask Ms. Cremer on that. I did not have my Title 49 out right now so I can't check that very easily.

I don't know that I needed to say pursuant to that. I just look at it from the standpoint that the conditions of the permit apply to all future owners. So perhaps Karen has a better way to phrase it or an answer to your question.

Ms. Cremer.

MS. CREMER: Thank you. This is Karen Cremer. And, again, you know, we had a very quick discussion this morning. And, again, I would just state that it is in statute clearly, just kind of like the prior discussion we had but you had asked for some language and so I provided that to you.

Does that answer it?

CHAIRMAN HANSON: Commissioner Nelson, does that answer your question?

COMMISSIONER NELSON: Well, yes. What I heard is that this is no different than the discussion we just had, that it's already covered in statute. So I absolutely don't disagree with the intention. I just

don't think it's needed because it's already covered.

CHAIRMAN HANSON: And I don't know that it is covered by the way that you explained or read that statute. So it is something that I'm -- that I believe needs to be a part of it if that cite needs to be removed from it and just simply state these permit conditions shall apply to any future -- or excuse me. These permit conditions apply to any future owner who takes possession --

Yeah. I think the cite is still appropriate because it states if they take possession pursuant to that, where we give them permission.

COMMISSIONER NELSON: Yeah. And I'm not arguing that point. Let me just read the statute. It's short. And then I'll shut up.

49-41B-29, "A permit may be transferred subject to the approval of the Public Utilities Commission to a person who agrees to comply with the terms, conditions, and modifications contained therein. The Commission shall adopt rules pursuant to the authority granted under this chapter."

CHAIRMAN HANSON: Okay. Thank you for reading that. It does appear that -- excuse me, Commissioner Fiegen.

COMMISSIONER FIEGEN: No. Go ahead.

CHAIRMAN HANSON: I was just going to say that it does sound that it's covered under present statute. Thank you.

Commissioner Fiegen, did you have anything?

COMMISSIONER FIEGEN: No. Just for Staff of the Public Utilities Commission, they have worked, of course, with transfers and, you know, we get to see it at a hearing but we don't always get to see the behind-the-scenes issue.

Have the Staff ever had issues with a transfer where the new owners objected to the permit conditions and they thought our laws weren't stringent enough?

MS. REISS: Thank you. This is Amanda Reiss for Staff. And I don't believe we've had any concerns or come across any issues with that statute. Or with transferring the conditions to a new owner.

COMMISSIONER FIEGEN: Okay. Thank you. I appreciate the discussion we've had. And I know that if a transfer comes up to us in a docket, we can make sure that that happens.

Thank you.

CHAIRMAN HANSON: Yes. Thank you for that. Appreciate the discussion and work from everyone, especially when we're in compressed time frames as we are.

I'm going to withdraw that Motion because it -- if we do our due diligence when someone transfers, then it's taken care of.

Are there any further motions to amend the main Motion that's amended?

I have a question of Staff on 8C on page 2. The second line there refers to active construction period. Again, I'm a stickler on semantics and contracts, and it says, "Repaired through the active construction." Shouldn't we state through -- any time that they're doing construction on it, that they will do this?

I'm thinking of striking the word "active" and through --

MS. REISS: Thank you.

CHAIRMAN HANSON: Excuse me. Go ahead. Sorry.

MS. REISS: Oh. Thank you. And I think, you know, when Staff put together this condition I think we tried to look to the future and what construction we were looking to to protect the roads. And I think the additive "active" really protects that time when there's large machinery traveling across roads on a regular basis multiple times a day.

I think if you -- if you do remove it, there may be a question as to whether general maintenance is included as construction. And then I think there's

concern as to whether those maintenance trucks have caused a problem or whether it's just general wear and tear.

I do think there are road use agreements with local entities that can address that as well, but that's just a little bit of a rationale and explanation, but clearly this Commission is free to alter this condition as you see fit.

CHAIRMAN HANSON: Okay. I appreciate that.

Perhaps you can help me with No. 15C. And for those people who are wondering why the heck didn't I talk to you prior to this, for those folks who aren't aware, we're not allowed to chat, except in an open meeting like this in regards to this.

So in 15C there's a suggestion that the word "insure" at the beginning of the sentence -- so that it would read "Insure all access soils generated." That might seem a small change, but I'm concerned whether the Motion on minor grammatical changes that we passed includes that.

Would the -- well, would the fellow Commissioners assume with me that that is -- should be included, we don't need a Motion to amend, et cetera, just that -- well, maybe we do.

COMMISSIONER NELSON: Chairman Hanson, this is

Commissioner Nelson. That was exactly the types of things that I intended to cover with my phrase minor grammatical changes.

CHAIRMAN HANSON: Right. And when I looked at that certainly in item 2 when it states, "Applicants shall construct" instead of "Applicant shall, one," you know, that sort of thing, yes. I don't know if this falls under -- far enough down the list to be minor. So that's why I asked whether we needed (Inaudible) included.

COMMISSIONER FIEGEN: Chairman Hanson, if I could just interject, this is Karen Cremer. If you go back up to 15 where it says, "Applicant shall."

CHAIRMAN HANSON: Right.

MS. CREMER: The two words right before. So it's "Applicant shall strip the topsoil. Applicant shall store the topsoil. Applicant shall...all excess soils." It doesn't say what they (Inaudible). And so I just put a verb in there.

CHAIRMAN HANSON: Okay.

MS. CREMER: Yeah.

CHAIRMAN HANSON: Right. Yeah. I understood that. It makes grammatical sense to do that. Your adjective may be different from the next person's, but I assume that you'll make sure that's changed and that

there won't be an argument from the Applicant.

We'll turn to page 5 then and look at 22 -- well, it's -- it's the third indentation with the dot. It states, "Once received, Staff shall have 10 calendar days."

Calendar days are a lot different than business days. And if the request is made on a Friday and there's a Monday holiday -- or for any other reason, that could knock -- with two weekends in there, that would knock that down to four working days with Staff. And with the compressed times that we always have, that just did not seem like a very long -- 10 days --

Even 10 business days don't seem like a long enough time for me. So I'd like to change that to business days instead of calendar days. So I make that as a Motion to amend at this time.

And I've spoken to it, which I guess I shouldn't do prior to making a Motion, but it seems to facilitate the work we do a little bit easier if we do that.

So I have a motion to strike "calendar" and supplant the word "business" with "calendar." And I've spoken to it.

Any discussion on that Motion?

COMMISSIONER NELSON: This is Commissioner Nelson. I don't have a problem with it. But if I could

just ask Staff if there was any reason for this being a more accelerated time frame than 10 business days?

MS. REISS: Thank you, Commissioner Nelson. This is Amanda Reiss for Staff. I think, if I remember correctly, there was discussion in previous dockets about needing to move forward expeditiously. So I believe we included calendar days as opposed to business days.

Staff has no concern changing that at this point. We have not, though, conferred with Crowned Ridge Wind II regarding such a change at this point.

COMMISSIONER NELSON: Thank you.

CHAIRMAN HANSON: Further discussion on the Motion?

Obviously, if it's business days and it's a pressing deal, Staff has never been known to be dilatory in any fashion so I don't believe that's going to hurt the Applicant in any way if we make certain that future Staff has an opportunity.

Further discussion on the Motion?

Hearing none, Commissioner Nelson.

COMMISSIONER NELSON: Aye.

CHAIRMAN HANSON: Commissioner Fiegen.

COMMISSIONER FIEGEN: Fiegen votes aye.

CHAIRMAN HANSON: Hanson votes aye. The Motion carries.

Item No. 7 on the Motion to Amend -- the Amended Motion to Amend stated the grammatical changes. And just for the record, I'm going to point out what I consider some of those. And I know that the Commission -- my fellow Commissioners are thinking similarly.

On 26B, which is on page 6, about one, two, three, four -- about six lines from the bottom the word "wind" needs to be added before "turbines," and the word "Commission" removed before the word "Staff."

And there's 15 times when the word "wind" should be added on page 6 and 7 in front of the word "turbine." And in some cases the word "Commission" should be removed. So I would -- whomever is working through that process make certain that the word "wind" is placed in front of "turbine" so it says "wind turbine."

And then on page 8 I'm wondering whether some of these are significant enough to change. And some instances, like on page 8, it would be 33, the second paragraph of 33, which is on -- at the top of the page. It has the word "Applicant."

And, again, in 33A, the first line, it says, "Applicant." And again it says, "Applicant" in B. And the second line from the top of B it says, "turbine." It should probably say, "project owner."

In every place where it says "Applicant" it

should probably say "project owner" instead of "Applicant." I would consider those to be items that would fall undermine or grammatical changes, but it's really not a minor grammatical change. But unless my fellow Commissioners disagree and think that we need to have a Motion on those or they disagree with me.

In 33E, however, I think that it is material where it states escrow -- "the escrow account obligations," and it should state the "decommissioned funding account." And it's not the escrow account at this point. It's a decommissioning funding. I think we know that, but just so there's no misunderstanding. That needs to be done in E and F and H. And when it states "agreement" it should state escrow agreement."

And in H(ii) and iii and item 4, Roman numeral II, III, and IV, it should say "decommission funding account" instead of "escrow" and "escrow account." And the same in I and J where it refers to the account and at the beginning of the sentence says, "account funds," it should say "decommissioning."

And I know you're all excited with me going through this like this, but there's a sentence at the end of 35 that I have a question on. "If no waiver is obtained, Applicant shall file a mitigation plan with the Commission prior to construction and obtain Commission

approval of the mitigation plan."

Is that a part of S7?

Can someone from Staff -- I'm having trouble getting through all of the different items I have on my computer here to check that. That would be item 35.

I believe that -- I'm going to answer my own question. I believe that it is the same grammatical situation with item 37 needs to be changed on the word "wind and "project owner," et cetera, and "wind turbine."

And in 41 -- I believe whoever is redoing it will notice 41 where there's a number of changes that need to take place, but I'll bring that to their attention at this time. And then -- and that is all that I have on it, much to the relief of my fellow Commissioners.

Are there any other motions to be made at this time?

Hearing none, we have a main motion as amended. Hearing no further discussion on the main motion as amended -- excuse me. Go ahead.

COMMISSIONER FIEGEN: So sometime I'd like to make a statement on the main motion.

CHAIRMAN HANSON: Why don't we do that now. I was thinking we'd do it afterwards but, yes, it makes all the sense to do it now.

COMMISSIONER FIEGEN: So are you -- did you just state that you were amending those -- the statements that you just made, is that an amendment?

CHAIRMAN HANSON: No. That is to bring attention to whomever is doing the grammatical changes, that those are items to consider when they do their -- because it really needs to have clarification.

COMMISSIONER FIEGEN: Okay.

CHAIRMAN HANSON: There's ambiguity with them, and whoever's doing it should recognize that.

COMMISSIONER FIEGEN: Right. Thank you. Whenever you're ready, I'll be ready. Thanks.

CHAIRMAN HANSON: All right. Then I'll yield the floor to Commissioner Fiegen for comment on the main motion as amended. Unless you wish to go after someone else.

COMMISSIONER FIEGEN: I'll go after you, Mr. Chairman.

CHAIRMAN HANSON: All right. Well, Commissioner Nelson, you made the main motion so I'll let you go.

COMMISSIONER NELSON: I don't have much else to add. As I said when I made the Motion, I believe that through the hearing and the evidence that has been presented that the Applicant is entitled by law to this permit.

I believe that the conditions that we have put together are conditions necessary to protect the people and the property in that area. And I fully understand that there's a balance here, that not everyone in that area is going to be happy with this.

Obviously, Mr. Swanson believes that there are some property rights that have been taken away with this. That's an argument that, you know, he can make to Circuit Court, which is the appropriate place for that argument to be made. And, you know, we'll see whether he is right or not on that -- on the law.

But for the task that we have, that we have been given by statute, I believe the company is entitled to this permit and, hence, my Motion. Thank you.

CHAIRMAN HANSON: Thank you.

Throughout the process we have said a number of the things that I'll probably touch on at this time.

Wind dockets are always troubling to me. I shouldn't -- they didn't start out that way years ago, 17 years ago when we were first working on them. There's a lot of issues that have been clarified since that time, a lot of issues that we didn't even think about back then or realize and concerns that have been brought up. And they're challenging to me from the standpoint that I do believe that properties are affected. Certainly I think

we all agree, and that's why there's laws that have been passed.

Maybe it's the old legislator in me. When I was in the legislature we had the freedom to make decisions based upon how we felt from talking to lots of different folks, and we're constrained as Commissioners from that standpoint. We follow the law. If the law says this is what we do after we've gone over the entire process, then that's what we do.

And Staff brought out those five requirements that we had -- and they are requirements. We certainly must protect the citizens, but at the same time we have to follow the law. And if the Applicant proves that they fulfilled their requirements, then we're obliged to vote in favor of the permit with the conditions.

And I think we've provided some excellent conditions here. I would certainly like to have a couple more on there. They're not heartbreaking by any means to me. I won't regurgitate what they were but would very much have liked to have seen that.

A couple of areas that I'm uncomfortable with in dockets of this nature. One has to do with the valuation. I think we heard some real good lay testimony and exhibits on valuation, something that we had not heard prior to this.

It does appear both from expert and lay testimony that the valuation of properties -- the property values are affected by the proximity to a wind farm. It's a matter of -- well, I think it's supported by the fact that there's -- there's no disagreement that sound, light, flicker, aesthetics of a wind farm affect value. Otherwise, there wouldn't be any need for those issues to be part of it, to be used for determining setbacks, for instance.

So, obviously, it's not a question of whether wind farms affect a value; it's a question of how close is too close? At what distance do they -- is there too much flicker, is there too much sound, is there -- is the aesthetics wrong? And I think that's supported by evidence. It's supported by the facts of what has been presented to us.

I think that -- well, I really struggle with the whole thing because of that. And I think that Mr. Swanson's letter touched on that in a fashion that I guess I can consider to be very legitimate. I think his letter was -- I did not dismiss his letter by any means. I read it a couple times. I thought that it had some very good points.

And when it spoke to very much the affect that wind farms have on other properties, nonparticipants, and

he used the word "aggressively," that the wind farm was aggressively designed. He said that it was intended to hug the regulatory limits rather than limiting conflicts with nonparticipants. And I think that was a profound statement because certainly the wind farms do everything they can to get the very last wind turbine up that's going to the economic value to the wind farm.

And I recognize we do not legislate the setbacks, that that's done by the counties and the legislature. And so, you know, I would really encourage the counties and the legislature -- especially the counties that do not have a setback law and the legislature in that respect. Even the legislature from the standpoint of looking at this very seriously and the counties to revisit the setback laws and the regulations that they have overview.

And these are outside the Public Utilities Commission's ability. And so I -- lawful ability. And so I just wish to impress to the legislators that they have the freedom to make the laws. We have the responsibility to make certain that they're -- that we abide by them. And I'm just very concerned with that, concerned with -- I'd like to hear further information on the no such thing as moon flicker.

You know, I just do not accept the yardstick

experiment that is sufficient to disprove the theory that there's moon flicker. We didn't have evidence on that that we can use to support any decision that we make. However, I'd certainly like to hear more on that.

I'll end with that, but there's a lot of concerns that I have that I just don't feel that when we -- when we make these decisions we make them based upon the strongest testimony that we have. And that's proper. However, I think that the other parties, the Intervenors, are outgunned in many respects. Certainly they don't have millions of dollars to spend on these things. And so I just feel like I'm not getting the whole story when we make these decisions.

I'm going to obviously support the Motion because I think that's the proper thing to do and that we are in a position where we've done the very best that the Public Utilities Commission can do.

I congratulate our Staff and certainly the Applicants for the work that they've done. But I'd really like to also say the Intervenors came with a lot of ammunition, did an excellent job, and there are a number -- this final decision has their footprints on it. They have helped meld it and influence the conditions, and so they shouldn't go away thinking that they were at a loss because it wasn't killed.

The fact is, they helped make it a better piece, and for that we appreciate the Applicant and the Intervenors, the Staff for a tremendous amount of work that the average folks just don't understand how many thousands of pages and the amount of work that goes into something of this nature.

So, with that, I'd say thank you to my fellow Commissioners for all that you've done and gone through with this process as well.

And, Commissioner Fiegen, the floor is yours.

COMMISSIONER FIEGEN: Thank you, Commissioner Hanson.

Crowned Ridge II certainly has been a lengthy process, and not only lengthy today but the permit process is quite lengthy. And as a Public Utilities Commissioner we always have to look at federal law and state law and county laws and ordinances when we do a permit.

And so as a Commissioner I have to look at the record. And so I believe the Public Utilities Commission Staff and the developer has developed a record to approve the permit.

And we have to look at evidence and facts. And I asked the experts several questions, for example, on property rights and property valuations, and there was

nothing in the record that I have seen that would add another condition. And that's what I continue to look at, the record, the evidence, and the facts.

And the Public Utilities Commission Staff have really done a good job in developing conditions. And as we heard today, they worked with Intervenors. They worked with other interested parties like GF&P, and they also, of course, worked with the Applicant.

And I appreciate my fellow Commissioners even bringing additional conditions. And some of those conditions certainly weren't talked about at the evidentiary hearing but they added them today and I certainly appreciate that.

All parties have worked very hard, and I appreciate working with every one of them. But I certainly appreciate the Staff's additional negotiations on working with the developers.

So thank you to my fellow Commissioners, and I'll be supporting the Motion.

CHAIRMAN HANSON: Is there any further discussion on the Motion -- the main motion as amended?

Hearing no further discussion on the main motion as amended, Commissioner Nelson.

COMMISSIONER NELSON: Aye.

CHAIRMAN HANSON: Commissioner Fiegen.

COMMISSIONER FIEGEN: Commissioner Fiegen votes aye.

CHAIRMAN HANSON: Hanson votes aye. The Motion is carried.

Thank you all very much. And ordinarily I would say have a safe trip home, but I think just about everybody is.

STATE OF SOUTH DAKOTA)

:SS CERTIFICATE

COUNTY OF SULLY)

I, CHERI MCCOMSEY WITTLER, a Registered Professional Reporter, Certified Realtime Reporter and Notary Public in and for the State of South Dakota:

DO HEREBY CERTIFY that as the duly-appointed shorthand reporter, I took in shorthand the proceedings had in the above-entitled matter on the 17th day of March, 2020, and that the attached is a true and correct transcription of the proceedings so taken.

Dated at Onida, South Dakota this 10th day of April, 2020.

/s/ Cheri McComsey Wittler
Cheri McComsey Wittler,
Notary Public and
Registered Professional Reporter
Certified Realtime Reporter

'

'er [1] - 19:20

/

/s [1] - 74:17

1

1 [1] - 29:22
1,500-foot [1] - 14:14
10 [9] - 32:3, 33:21, 34:2, 35:15, 36:10, 60:4, 60:12, 60:13, 61:2
100 [1] - 43:9
10th [1] - 74:13
11 [1] - 32:7
11:07 [1] - 3:9
11:20 [3] - 3:10, 3:13
12 [3] - 8:2, 8:12, 20:6
14 [1] - 8:14
15 [4] - 9:11, 59:13, 62:10
15C [2] - 58:10, 58:15
17 [3] - 1:8, 3:16, 66:19
17th [2] - 2:4, 74:10

2

2 [4] - 29:24, 52:20, 57:6, 59:5
20 [4] - 25:8, 41:24, 42:15, 42:17
2020 [7] - 1:8, 2:5, 3:17, 8:2, 16:10, 74:11, 74:14
212 [2] - 12:8, 12:9
213 [1] - 1:24
22 [2] - 27:10, 60:2
24 [1] - 10:6
250 [1] - 8:12
26B [1] - 62:6
26C [4] - 21:25, 32:9, 33:5, 34:9
27 [1] - 16:10
29 [9] - 8:6, 15:20, 21:23, 30:3, 37:21, 37:22, 38:11, 40:6, 40:22

3

3 [1] - 30:3
30 [2] - 8:21, 41:25
33 [2] - 62:18, 62:19
33A [1] - 62:21
33E [1] - 63:7
34 [6] - 23:1, 23:3, 30:7, 30:8, 34:22, 37:7
35 [2] - 63:23, 64:5
37 [1] - 64:8

4

4 [2] - 30:7, 63:15
40 [13] - 9:10, 13:24, 30:20, 34:24, 45:6, 45:17, 47:9, 47:23, 48:3, 50:7, 50:13
41 [3] - 47:3, 64:10, 64:11
45 [2] - 7:4, 8:22
49 [1] - 54:5
49-41B-22 [1] - 6:17
49-41B-25 [2] - 5:21, 26:13
49-41B-25.2 [1] - 12:13
49-41B-29 [4] - 52:17, 53:11, 53:25, 55:16
49-41B-33 [1] - 48:12

5

5 [4] - 30:20, 45:5, 48:2, 60:2
50 [2] - 7:7, 8:23
500 [1] - 2:3

6

6 [3] - 30:24, 62:6, 62:11

7

7 [9] - 8:12, 16:12, 20:16, 24:18, 26:4, 31:5, 36:21, 62:1, 62:11
7:00 [2] - 14:11, 14:12

8

8 [4] - 20:4, 31:9, 62:16, 62:18
85 [1] - 8:16
8C [1] - 57:6

9

9 [1] - 31:22
9:30 [2] - 1:8, 2:5

A

a.m [3] - 1:8, 2:5, 14:12
abandonment [1] - 12:17
abide [2] - 54:1, 69:22
ability [2] - 69:18
able [6] - 13:22, 34:3, 39:8, 40:19, 42:16, 43:15
above-entitled [2] - 2:2, 74:10
absence [2] - 18:25, 46:7
absolutely [4] - 36:20, 46:3, 46:13, 54:25
AC-19 [1] - 6:24
accelerated [1] - 61:2
accept [2] - 34:14, 69:25
accepting [1] - 18:22
access [10] - 16:17, 16:20, 16:24, 20:18, 20:20, 20:21, 21:2, 25:17, 35:19, 58:17
accessory [1] - 7:9
accomplish [1] - 39:8
accordance [1] - 20:3
accordingly [1] - 9:20
account [7] - 63:8, 63:10, 63:17, 63:18, 63:19
accumulative [1] - 7:10
accuracy [2] - 11:23, 12:23
accurate [1] - 31:15
action [1] - 40:20
active [4] - 57:7, 57:9, 57:12, 57:20
Adam [4] - 1:13, 45:24, 46:1, 52:20
add [9] - 20:24, 22:11, 32:7, 43:8, 52:13, 52:15, 54:2, 65:22, 72:1
added [5] - 16:14, 22:2, 62:8, 62:11, 72:12
adding [2] - 32:21, 34:10
addition [4] - 7:21, 8:5, 24:21, 30:1
additional [9] - 16:14, 23:9, 29:24, 30:1, 39:19, 42:3, 52:15, 72:10, 72:16
additive [1] - 57:20
address [4] - 49:6, 49:10, 49:13, 58:5
addressed [1] - 14:16
addresses [1] - 8:6
adjective [1] - 59:24
adjoining [1] - 42:10
ADLS [5] - 8:1, 8:4, 12:15, 20:5, 30:12
admitted [1] - 11:24
adopt [2] - 8:8, 55:20
adverse [2] - 14:1, 18:6
adversely [1] - 24:14
advised [1] - 29:2
aesthetics [2] - 68:6, 68:14
affect [6] - 24:10, 24:14, 25:23, 68:6, 68:11, 68:24
affected [3] - 24:9, 66:25, 68:3
afforded [1] - 14:17
aforementioned [1] - 11:17
afterwards [1] - 64:24
ag [1] - 31:24
agencies [1] - 7:24
agenda [1] - 3:17
aggressively [2] - 69:1, 69:2
ago [3] - 42:15, 66:19, 66:20
agree [10] - 34:18, 34:19, 37:23, 39:2, 41:2, 46:23, 53:19, 53:24, 54:1, 67:1
agreed [12] - 8:25, 13:22, 16:3, 16:21, 17:8, 19:18, 19:22, 30:25, 40:7, 40:11, 40:12, 43:16
agreeing [1] - 50:5
agreement [3] - 16:18, 63:14
agreements [1] - 58:4
agrees [5] - 38:13, 39:7, 49:8, 52:10, 55:18
agricultural [1] - 35:3
ahead [8] - 21:19, 22:18, 39:12, 49:19, 53:16, 55:25, 57:15, 64:20
air [12] - 12:2, 12:4, 13:10, 23:3, 23:25, 24:5, 24:8, 24:15, 25:10, 25:20, 25:22
aircraft [1] - 35:2
airport [1] - 18:20
Allen [1] - 4:24
allow [8] - 16:23, 20:17, 20:20, 21:2, 21:9, 26:3, 35:17
allowed [2] - 9:18, 58:13
allowing [1] - 17:11
alter [2] - 17:16, 58:7
alternate [1] - 14:8
alternative [3] - 8:25, 14:24, 19:23
Amanda [9] - 1:22, 4:16, 15:7, 15:8, 22:20, 23:8, 49:1, 56:13, 61:4
Amber [4] - 1:19, 4:23, 5:8, 11:5
ambiguity [1] - 65:9
amend [28] - 26:15, 34:8, 34:14, 35:8, 35:15, 35:21, 35:22, 36:5, 36:10, 36:12, 39:11, 44:10, 44:17, 45:2, 50:12, 50:14, 51:1, 51:2, 51:14, 52:4, 52:7, 53:6, 54:2, 57:4, 58:23, 60:16, 62:1, 62:2
amended [18] - 8:6, 29:18, 36:12, 51:1, 51:2, 51:10, 51:13, 51:14, 51:22, 53:13, 57:5, 62:1, 64:18, 64:20, 65:15, 72:21, 72:23
amending [2] - 21:3, 65:2
amendment [16] - 22:3, 23:13, 29:9, 30:24, 31:3, 34:6, 35:1, 35:3, 37:14, 40:6, 40:22, 41:3, 41:10, 50:15, 65:3
amendment's [1] - 33:12
amendments [8] - 26:4, 26:17, 26:24, 27:2, 29:7, 33:11, 35:16, 53:5
ammunition [1] - 70:21
amount [5] - 14:7, 17:11, 18:14, 71:3, 71:5
analysis [1] - 16:20
AND [1] - 1:5
animal [1] - 24:8
animals [1] - 43:4
annoyance [1] - 13:25
annually [2] - 8:21, 9:11
answer [10] - 20:23, 25:24, 29:21, 32:12, 44:4, 45:20, 54:10, 54:19, 54:21, 64:6
answered [1] - 21:22
appear [2] - 55:23,

68:1
appearing [4] - 1:18, 1:20, 1:21, 1:23
applicable [3] - 6:18, 7:15, 17:21
Applicant [68] - 6:15, 7:14, 7:19, 7:25, 8:3, 8:14, 8:20, 8:25, 9:3, 9:24, 10:2, 10:19, 11:7, 11:9, 11:16, 11:22, 11:24, 12:3, 12:14, 12:15, 12:19, 12:24, 13:2, 13:4, 13:6, 13:7, 13:8, 13:22, 16:19, 16:21, 16:23, 17:4, 17:7, 20:17, 20:19, 25:1, 29:11, 30:11, 31:1, 31:22, 38:1, 38:12, 39:6, 43:24, 44:12, 45:8, 46:14, 52:10, 52:12, 59:6, 59:13, 59:16, 59:17, 60:1, 61:17, 62:20, 62:22, 62:25, 63:2, 63:24, 65:24, 67:13, 71:2, 72:8
Applicant's [3] - 13:20, 14:2, 14:25
applicants [7] - 8:7, 14:19, 14:20, 35:17, 52:12, 59:5, 70:19
APPLICATION [1] - 1:4
application [3] - 8:3, 20:6, 32:1
Application [6] - 5:15, 12:22, 13:10, 14:23, 15:1, 17:19
Applications [1] - 17:18
applicators [1] - 31:24
applied [1] - 12:14
applies [1] - 52:14
apply [6] - 30:12, 52:16, 53:10, 54:9, 55:7, 55:8
appointed [1] - 74:8
appreciate [25] - 21:23, 32:23, 35:1, 35:3, 36:18, 36:19, 39:15, 39:18, 41:10, 44:3, 44:9, 45:20, 49:18, 50:2, 50:4, 50:9, 53:20, 56:18, 56:23, 58:9, 71:2, 72:9, 72:13, 72:15, 72:16
appreciates [1] - 38:7
appropriate [3] - 20:8, 55:10, 66:9
appropriately [1] - 8:20
approval [4] - 8:3, 12:14, 55:17, 64:1
approve [1] - 71:21
approved [1] - 8:1
April [1] - 74:14
aquatic [2] - 25:14, 25:15
area [8] - 16:24, 18:10, 18:12, 33:19, 35:19, 43:6, 66:3, 66:5
areas [5] - 14:23, 32:20, 36:24, 47:15, 67:21
argue [1] - 9:9
argued [1] - 17:10
arguing [1] - 55:13
argument [8] - 17:14, 18:13, 18:16, 18:22, 19:1, 60:1, 66:8, 66:9
articulate [1] - 40:19
articulated [1] - 40:18
aside [1] - 16:3
assess [1] - 15:24
asset [1] - 13:13
assist [2] - 22:4, 34:10
assume [7] - 14:15, 26:4, 27:3, 28:18, 37:18, 58:22, 59:25
assumed [1] - 53:20
assuming [2] - 27:1, 34:19
attach [1] - 26:13
attached [3] - 15:13, 29:15, 74:11
Attachment [1] - 16:11
attachments [2] - 31:11, 31:19
attempted [1] - 49:6
attention [4] - 53:19, 53:21, 64:13, 65:5
attest [1] - 46:2
attorney [2] - 45:20, 52:25
attorneys [1] - 45:16
authority [6] - 16:16, 16:20, 30:22, 48:13, 49:9, 55:20
available [2] - 4:24, 19:7
Avenue [1] - 2:4
average [1] - 71:4
avian [4] - 8:7, 42:23, 43:22, 44:6
aware [2] - 4:6, 58:12
aye [16] - 35:9, 35:11, 35:12, 35:24, 36:1, 44:25, 50:23, 51:17, 51:19, 51:20, 61:21, 61:23, 61:24, 72:24, 73:2, 73:3

B

background [1] - 40:1
balance [2] - 12:20, 66:4
barns [1] - 7:10
Based [1] - 16:2
based [4] - 16:8, 16:20, 67:5, 70:7
baseless [1] - 9:13
basis [2] - 9:22, 57:21
bat [2] - 8:7, 40:9
batch [7] - 12:1, 12:7, 12:9, 17:5, 17:7, 19:17, 19:22
bats [1] - 43:4
Baucom [1] - 1:16
became [2] - 41:6, 41:8
becomes [1] - 47:8
BEFORE [1] - 1:10
begin [3] - 6:1, 6:11, 29:11
beginning [4] - 19:19, 20:23, 58:16, 63:19
behalf [2] - 1:18, 1:23
behind [1] - 56:9
behind-the-scenes [1] - 56:9
believes [2] - 21:4, 66:6
benefit [2] - 27:25, 43:18
benefits [1] - 8:10
best [2] - 14:25, 70:16
better [6] - 42:24, 42:25, 44:14, 53:1, 54:10, 71:1
between [1] - 37:25
beyond [1] - 54:3
bird [1] - 40:9
birds [4] - 25:6, 25:8, 32:24, 43:4
bit [12] - 26:18, 29:24, 30:10, 31:7, 33:11, 33:19, 34:22, 36:23, 41:22, 44:5, 58:6, 60:19
bite [1] - 50:24
blade [2] - 31:11, 31:19
blades [1] - 36:19
blocking [1] - 18:14
book [1] - 48:11
bottom [1] - 62:7
break [3] - 3:3, 3:6, 3:7
Brian [3] - 1:18, 4:9, 22:10
brief [13] - 8:5, 8:14, 9:13, 11:20, 13:18, 15:10, 15:17, 16:9, 16:13, 16:22, 17:10, 18:3, 19:14
bring [2] - 64:12, 65:4
bringing [3] - 53:19, 53:21, 72:10
brings [2] - 35:14, 36:3
brought [2] - 66:23, 67:10
bubbled [1] - 29:18
build [3] - 47:13, 47:15, 47:20
Building [1] - 2:3
built [3] - 12:11, 12:17, 13:16
burden [12] - 6:16, 7:14, 10:19, 11:8, 11:16, 13:20, 14:21, 14:22, 15:11, 19:17, 20:7, 29:12
business [7] - 60:6, 60:13, 60:15, 60:21, 61:2, 61:7, 61:14
businesses [1] - 53:4
BY [1] - 1:4

C

cake [1] - 43:14
calendar [6] - 60:4, 60:6, 60:15, 60:20, 60:21, 61:7
cannot [1] - 23:5
Capitol [2] - 2:3
care [2] - 33:24, 57:3
carried [1] - 73:4
carries [4] - 35:13, 36:2, 51:21, 61:25
carrying [1] - 11:3
case [1] - 34:23
cases [1] - 62:12
caused [1] - 58:2
causes [1] - 38:18
cement [1] - 12:1
certain [6] - 3:18, 15:13, 53:2, 61:17, 62:14, 69:21
certainly [23] - 26:2, 29:1, 29:21, 35:1, 38:7, 41:9, 46:1, 50:2, 50:9, 52:25, 53:24, 59:5, 66:25, 67:11, 67:17, 69:5, 70:4, 70:10, 70:18, 71:13, 72:11, 72:13, 72:16
CERTIFICATE [1] - 74:2
Certified [2] - 74:6, 74:19
CERTIFY [1] - 74:8
cetera [8] - 24:1, 25:20, 42:23, 52:11, 58:23, 64:9
Chairman [19] - 3:6, 4:11, 6:13, 19:13, 21:20, 21:21, 27:14, 28:12, 33:4, 37:6, 39:13, 39:24, 40:25, 48:17, 49:24, 52:1, 58:25, 59:11, 65:18
CHAIRMAN [102] - 1:10, 1:11, 3:1, 3:7, 3:15, 3:23, 4:2, 4:6, 4:13, 4:19, 4:25, 5:6, 5:9, 10:11, 10:23, 15:3, 19:10, 19:19, 20:10, 21:5, 22:16, 22:18, 23:16, 23:19, 23:23, 24:7, 25:18, 27:1, 27:9, 27:20, 28:6, 28:14, 28:17, 28:21, 28:24, 29:7, 32:17, 33:8, 33:14, 34:1, 34:13, 35:5, 35:10, 35:12, 35:25, 36:2, 36:11, 36:20, 37:8, 37:16, 39:2, 40:24, 41:11, 42:19, 43:12, 44:3, 44:21, 44:24, 45:25, 46:11, 46:21, 47:10, 48:16, 48:18, 49:19, 49:22, 49:25, 50:11, 50:19, 50:22, 51:6, 51:8, 51:10, 51:12, 51:18, 51:20, 52:3, 52:6, 54:4, 54:20, 55:2, 55:22, 56:1, 56:22, 57:15, 58:9, 59:4, 59:14, 59:20, 59:22, 61:12, 61:22, 61:24, 64:23, 65:4, 65:9, 65:13, 65:19, 66:15, 72:20, 72:25, 73:3
challenging [2] - 33:20, 66:24
change [11] - 15:19, 16:12, 24:17, 24:21, 30:3, 52:12, 58:18, 60:14, 61:10, 62:17, 63:4

changed [4] - 32:6, 47:15, 59:25, 64:8
changes [13] - 15:16, 20:15, 31:8, 36:22, 36:24, 37:18, 47:18, 58:19, 59:3, 62:2, 63:3, 64:11, 65:5
changing [1] - 61:8
chapter [1] - 55:21
chat [1] - 58:13
chats [1] - 3:12
check [4] - 4:2, 12:21, 54:5, 64:5
CHERI [1] - 74:5
Cheri [4] - 1:24, 5:12, 74:17, 74:18
chestnut [1] - 25:6
chestnut-collered [1] - 25:6
CHRIS [1] - 1:11
CHRISTENSON [4] - 4:23, 5:3, 11:5, 28:20
Christenson [8] - 1:19, 4:20, 4:23, 5:1, 11:3, 11:5, 15:4, 28:19
Circuit [1] - 66:8
cite [2] - 55:5, 55:10
cited [2] - 9:15, 9:17
citizens [1] - 67:12
claim [1] - 6:21
clarification [2] - 17:15, 65:7
clarified [1] - 66:21
clean [1] - 50:6
cleaned [1] - 31:7
clear [12] - 23:2, 24:25, 30:10, 45:16, 45:17, 45:18, 46:13, 47:19, 48:12, 52:8, 53:3, 53:7
clearly [4] - 34:23, 47:7, 54:16, 58:7
close [2] - 68:11, 68:12
closed [1] - 12:9
CODINGTON [1] - 1:6
Codington [2] - 5:17, 6:20
collaborators [1] - 43:10
colleagues [1] - 44:11
collered [1] - 25:6
comfortable [2] - 38:2, 41:8
coming [2] - 32:23, 48:10
commencing [1] - 2:5
comment [3] - 39:10, 51:12, 65:14
comments [3] - 20:5, 33:1, 33:11
commercial [7] - 23:4, 23:6, 30:14, 30:15, 30:19, 31:12, 31:20
COMMISSION [3] - 1:1, 1:10, 1:12
Commission [30] - 3:16, 5:18, 5:22, 8:8, 9:9, 10:21, 11:19, 12:16, 13:20, 14:4, 14:19, 14:24, 15:12, 15:18, 19:8, 26:10, 49:12, 55:17, 55:19, 56:6, 58:7, 62:4, 62:9, 62:12, 63:25, 70:17, 71:20, 72:4
Commission's [1] - 69:18
COMMISSIONER [77] - 1:11, 3:4, 3:21, 3:25, 21:13, 21:17, 21:20, 22:12, 22:15, 22:22, 22:25, 23:12, 23:17, 26:7, 27:6, 27:23, 29:1, 29:10, 33:4, 33:10, 34:6, 34:17, 35:9, 35:11, 35:24, 36:1, 36:7, 36:15, 37:6, 37:9, 37:12, 37:15, 38:21, 39:13, 40:25, 44:19, 44:23, 48:9, 48:17, 48:19, 49:16, 49:20, 49:24, 50:1, 50:18, 50:20, 51:4, 51:7, 51:9, 51:11, 51:17, 51:19, 51:25, 52:5, 53:15, 53:17, 53:23, 54:22, 55:13, 55:25, 56:5, 56:17, 58:25, 59:11, 60:24, 61:11, 61:21, 61:23, 64:21, 65:1, 65:8, 65:11, 65:17, 65:21, 71:11, 72:24, 73:1
Commissioner [78] - 3:20, 3:21, 3:23, 14:16, 20:11, 21:13, 21:15, 22:9, 22:16, 22:21, 23:16, 26:3, 26:6, 26:7, 26:25, 28:25, 30:9, 31:2, 32:8, 32:18, 32:25, 33:3, 33:6, 33:8, 34:4, 34:7, 34:25, 35:8, 35:10, 35:23, 35:25, 36:4, 36:5, 36:13, 36:16, 37:7, 38:9, 39:14, 39:25, 40:24, 41:1, 41:2, 44:18, 44:21, 44:24, 48:10, 48:18, 48:21, 48:25, 49:16, 50:17, 50:19, 50:20, 50:22, 51:16, 51:18, 51:24, 53:15, 53:16, 53:18, 54:20, 55:23, 56:4, 59:1, 60:24, 61:3, 61:20, 61:22, 65:14, 65:19, 71:10, 71:11, 71:16, 71:19, 72:23, 72:25, 73:1
Commissioners [20] - 3:2, 3:19, 4:5, 11:10, 21:12, 26:21, 28:1, 32:14, 47:21, 47:22, 47:24, 48:8, 58:22, 62:5, 63:5, 64:15, 67:6, 71:8, 72:9, 72:18
committed [1] - 7:25
common [1] - 9:13
communication [1] - 17:4
community [2] - 8:10, 18:5
company [1] - 66:13
compellingly [1] - 40:15
complaints [1] - 13:25
complete [2] - 11:25, 30:8
completed [2] - 31:12, 40:13
completely [2] - 14:21, 18:21
completion [1] - 31:10
compliance [2] - 7:1, 7:4
complies [1] - 6:22
comply [8] - 6:18, 7:3, 7:15, 11:11, 12:4, 13:5, 17:20, 55:18
compressed [2] - 56:24, 60:11
compromise [2] - 42:6, 42:20
computer [3] - 33:17, 64:5
computers [1] - 33:18
concept [1] - 18:18
concern [10] - 14:17, 24:25, 25:2, 25:5, 38:19, 41:5, 49:2, 52:22, 58:1, 61:8
concerned [11] - 24:10, 24:13, 24:16, 25:21, 25:23, 36:21, 41:6, 48:22, 58:18, 69:22, 69:23
concerns [15] - 12:1, 17:4, 17:7, 24:3, 25:9, 32:20, 37:4, 37:5, 45:14, 49:7, 49:14, 53:6, 56:14, 66:23, 70:6
conclusions [1] - 13:19
Conclusions [1] - 11:21
conclusive [1] - 46:4
Condition [7] - 20:4, 21:23, 21:25, 23:1, 23:3, 40:6, 40:22
condition [24] - 7:18, 8:6, 15:20, 16:7, 16:14, 16:22, 17:23, 20:4, 21:1, 22:4, 22:11, 23:11, 45:19, 46:14, 49:3, 49:4, 49:6, 49:10, 49:13, 57:17, 58:7, 72:2
conditional [2] - 7:20, 10:17
conditioned [1] - 45:8
conditions [32] - 5:19, 13:19, 15:13, 15:14, 15:15, 19:2, 20:3, 23:14, 26:13, 29:15, 32:2, 34:20, 45:11, 48:14, 52:16, 53:7, 53:10, 54:2, 54:9, 55:6, 55:8, 55:18, 56:11, 56:16, 66:1, 66:2, 67:15, 67:17, 70:23, 72:5, 72:10, 72:11
conduct [2] - 16:24, 42:11
conducted [2] - 38:13, 42:22
conducting [1] - 21:1
conferred [1] - 61:9
confident [1] - 31:18
confirm [1] - 19:24
confirmation [1] - 22:7
conflicts [1] - 69:3
congratulate [1] - 70:18
conjunction [2] - 40:16, 46:18
consider [5] - 37:14, 62:3, 63:2, 65:6, 68:20
considered [2] - 17:17, 18:15
consistent [2] - 8:24, 16:1
constrained [1] - 67:6
construct [1] - 59:6
construction [13] - 5:20, 8:12, 10:4, 12:8, 14:11, 18:23, 26:11, 57:7, 57:9, 57:11, 57:18, 57:25, 63:25
consultations [1] - 7:24
contacting [2] - 22:5, 34:11
contained [1] - 55:19
context [1] - 40:1
continue [2] - 26:15, 72:2
contract [1] - 53:3
contracts [1] - 57:8
contrary [2] - 6:21, 9:7
control [1] - 20:3
conversations [1] - 19:25
cooperate [1] - 31:24
copy [2] - 33:15, 33:22
correct [9] - 5:7, 22:23, 23:5, 23:20, 36:11, 36:17, 37:10, 74:11
correctly [2] - 49:4, 61:5
counties [6] - 7:20, 10:18, 69:9, 69:11, 69:12, 69:15
Counties [2] - 5:17, 6:20
COUNTIES [1] - 1:6
COUNTY [1] - 74:3
county [4] - 6:19, 7:11, 14:18, 71:17
County [3] - 6:23, 7:1, 12:22
couple [10] - 21:16, 21:21, 28:11, 37:3, 49:17, 49:21, 50:8, 67:17, 67:21, 68:22
course [4] - 25:23, 46:5, 56:6, 72:8
court [1] - 18:17
Court [2] - 18:25, 66:9
courts [1] - 18:18
cover [1] - 59:2
covered [6] - 46:24, 47:2, 54:24, 55:1, 55:3, 56:2
craft [1] - 49:6
crane [4] - 30:24, 31:3, 32:22, 37:5
credible [1] - 9:24
Cremer [8] - 1:13,

45:22, 46:8, 46:20, 54:4, 54:12, 54:13, 59:12
CREMER [7] - 45:22, 46:9, 46:20, 46:22, 54:13, 59:15, 59:21
criteria [1] - 11:22
cross [2] - 9:16, 17:11
cross-examination [1] - 9:16
crosses [1] - 18:15
Crowned [51] - 1:18, 4:3, 5:15, 5:20, 5:24, 6:1, 6:3, 6:9, 6:11, 6:14, 6:24, 12:21, 15:11, 15:25, 16:6, 16:17, 16:23, 17:1, 19:11, 20:18, 20:21, 20:25, 21:6, 21:8, 21:25, 22:8, 22:10, 26:12, 27:19, 31:11, 31:13, 31:20, 35:17, 39:16, 39:20, 39:23, 40:7, 40:13, 40:14, 42:1, 42:10, 42:12, 45:23, 46:2, 46:10, 50:5, 61:9, 71:13
CROWNED [1] - 1:4
CRR [1] - 1:24
crystal [1] - 48:12
cultural [1] - 7:23
cumulative [2] - 7:4, 7:8
curious [1] - 20:19
cut [2] - 19:19, 28:14

D

Dakota [18] - 1:24, 2:3, 2:4, 3:16, 8:13, 11:11, 11:23, 12:23, 14:25, 16:8, 24:23, 25:11, 40:12, 41:19, 42:15, 43:20, 74:7, 74:13
DAKOTA [2] - 1:2, 74:1
Darren [3] - 1:15, 15:6, 20:23
data [3] - 40:8, 40:10, 40:12
date [3] - 30:14, 30:16, 30:19
Dated [1] - 74:13
daycare [2] - 17:5, 17:6
days [13] - 10:6, 60:5, 60:6, 60:7, 60:10, 60:12, 60:13, 60:15, 61:2, 61:7, 61:14
dBA [7] - 7:4, 7:7, 8:22, 8:23, 9:10, 13:24
de [2] - 1:13, 18:16
deal [4] - 32:14, 37:20, 39:4, 61:15
deals [1] - 30:7
December [1] - 22:2
decent [1] - 38:17
decided [1] - 52:21
decision [4] - 9:22, 46:2, 70:3, 70:22
decisions [3] - 67:4, 70:7, 70:13
decline [1] - 25:8
decommission [1] - 63:16
decommissioned [1] - 63:9
decommissioning [2] - 63:11, 63:20
deficient [1] - 15:1
definitely [1] - 39:5
delete [3] - 30:20, 45:5, 48:2
deleted [2] - 34:24, 48:23
deleting [4] - 47:23, 48:2, 48:7, 50:12
deletion [1] - 50:13
demand [1] - 29:18
demonstrate [1] - 19:16
demonstrated [1] - 7:19
demonstrates [2] - 10:9, 10:14
DENR [2] - 24:2, 25:19
deny [2] - 5:19, 14:25
Department [1] - 25:11
deprivation [1] - 13:25
describing [1] - 26:23
description [1] - 13:8
designed [1] - 69:2
despite [2] - 12:13, 16:18
detection [2] - 23:3, 23:6
determine [1] - 17:19
determined [1] - 16:19
determining [1] - 68:8
Deuel [2] - 5:17, 6:19
DEUEL [1] - 1:5
developed [1] - 71:21
developer [1] - 71:21
developers [1] - 72:17
developing [1] - 72:5
development [3] - 10:16, 18:2, 19:6
different [12] - 21:7, 33:17, 40:15, 43:2, 47:22, 49:14, 52:24, 54:23, 59:24, 60:6, 64:4, 67:5
differently [1] - 36:23
difficult [1] - 28:8
dilatory [1] - 61:15
diligence [1] - 57:2
directly [1] - 14:2
disagree [3] - 54:25, 63:5, 63:6
disagreement [1] - 68:5
discuss [2] - 34:1, 34:2
discussed [4] - 20:16, 28:9, 34:15, 38:16
discussion [37] - 5:12, 5:23, 34:5, 34:16, 35:6, 35:7, 35:14, 35:19, 35:21, 36:3, 38:15, 38:20, 39:5, 39:11, 41:4, 44:16, 45:1, 48:8, 50:12, 50:14, 51:2, 51:15, 51:23, 52:1, 53:11, 54:14, 54:16, 54:23, 56:18, 56:23, 60:23, 61:5, 61:12, 61:19, 64:19, 72:21, 72:22
discussions [7] - 16:15, 29:16, 39:22, 40:1, 45:14, 49:5, 53:14
dismiss [1] - 68:21
disposal [1] - 13:5
disprove [1] - 70:1
distance [1] - 68:12
DO [1] - 74:8
docket [7] - 5:4, 5:10, 27:11, 27:16, 28:3, 41:20, 56:19
dockets [7] - 9:16, 25:2, 46:19, 47:5, 61:5, 66:18, 67:22
doctor [1] - 9:3
document [5] - 27:25, 45:16, 46:12, 48:4, 52:9
dollars [2] - 44:13, 70:11
done [10] - 20:6, 26:8, 42:14, 53:20, 63:13, 69:9, 70:16, 70:19, 71:8, 72:5
dot [1] - 60:3
doubt [1] - 27:3
down [4] - 31:25, 52:21, 59:8, 60:10
draw [1] - 40:10
due [2] - 17:5, 57:2
duly [1] - 74:8
duly-appointed [1] - 74:8
during [8] - 10:4, 11:24, 12:7, 12:11, 13:21, 29:23, 30:25, 39:21

E

e-mail [1] - 26:19
e-mailed [1] - 27:25
e-mailing [2] - 28:2, 52:20
early [1] - 52:22
ease [1] - 26:22
easement [3] - 8:15, 8:16, 18:16
easier [1] - 60:19
easily [1] - 54:6
East [1] - 2:3
easy [1] - 32:8
eat [1] - 43:15
economic [4] - 7:18, 8:9, 17:23, 69:7
editorial [1] - 51:12
Edwards [2] - 1:22, 15:7
effect [4] - 16:25, 24:7, 24:13, 24:15
effective [1] - 31:25
effectively [1] - 18:23
effects [10] - 14:1, 18:6, 18:11, 24:3, 24:11, 25:14, 25:22, 38:3, 40:9, 41:23
efficiency [1] - 13:3
effort [2] - 50:5, 50:10
Ehlebracht [1] - 9:12
either [1] - 33:13
EL19-027 [4] - 1:4, 3:1, 5:10, 26:10
element [1] - 6:17
elsewhere [1] - 47:18
encourage [1] - 69:10
end [3] - 32:22, 63:22, 70:5
Energy [2] - 16:2, 16:3
energy [9] - 5:16, 5:20, 10:21, 18:24, 25:2, 25:14, 26:11, 41:24, 42:5
ENERGY [1] - 1:5
ensure [3] - 11:13, 18:4, 18:5
ensures [1] - 19:2
ensuring [2] - 11:11, 17:21
entire [1] - 67:8
entirety [1] - 37:23
entities [2] - 21:8, 58:5
entitled [5] - 2:2, 29:13, 65:24, 66:13, 74:10
Environment [1] - 25:12
environment [7] - 7:17, 7:23, 11:14, 13:9, 17:23, 19:3, 24:15
environmental [1] - 24:1
equip [1] - 7:25
Eric [2] - 1:15, 15:6
escrow [6] - 63:8, 63:10, 63:14, 63:17
especially [2] - 56:24, 69:11
essentially [2] - 16:23, 42:16
establish [1] - 11:7
established [1] - 10:3
estimate [1] - 13:2
et [8] - 24:1, 25:20, 42:23, 52:11, 58:23, 64:9
evaluate [1] - 16:25
evidence [14] - 7:16, 7:21, 9:7, 9:21, 9:25, 10:6, 12:3, 13:4, 18:6, 65:23, 68:15, 70:2, 71:23, 72:3
evidentiary [3] - 13:21, 16:16, 72:12
exactly [2] - 26:8, 59:1
examination [1] - 9:16
example [1] - 71:24
exceed [2] - 7:4, 10:2
excellent [2] - 67:16, 70:21
except [1] - 58:13
exception [1] - 37:24
excess [1] - 59:17
excited [2] - 42:11, 63:21
exclude [1] - 47:12
excuse [11] - 6:2, 11:6, 22:18, 23:23, 24:22, 27:9, 43:11, 55:7, 55:23, 57:15, 64:20
executed [2] - 8:15, 8:17
Exhibit [9] - 6:24, 15:15, 16:12, 20:16, 24:18, 26:4, 26:14,

29:8, 29:14
exhibit [1] - 51:8
exhibits [1] - 67:24
exist [1] - 17:17
existing [2] - 13:9, 40:8
expanded [1] - 30:17
expected [1] - 13:3
expeditiously [1] - 61:6
experience [1] - 9:4
experiment [1] - 70:1
expert [2] - 9:8, 68:1
expertise [1] - 25:13
experts [1] - 71:24
explain [2] - 27:8, 32:19
explained [3] - 16:9, 25:22, 55:3
explanation [1] - 58:6
explanatory [1] - 27:24
express [1] - 17:6

F

FAA [6] - 8:1, 8:3, 12:14, 20:6, 30:13, 37:13
facilitate [1] - 60:18
facilities [1] - 42:18
FACILITY [1] - 1:5
facility [12] - 5:16, 5:20, 10:21, 16:17, 17:6, 17:20, 17:21, 17:24, 18:1, 26:12, 42:10
Fact [1] - 11:20
fact [5] - 30:15, 46:3, 47:7, 68:5, 71:1
facto [1] - 18:16
facts [3] - 68:15, 71:23, 72:3
failed [3] - 14:21, 14:22, 14:23
fails [3] - 18:16, 44:25, 50:24
fall [2] - 48:25, 63:3
falling [1] - 48:6
falls [1] - 59:8
family [1] - 13:14
far [1] - 59:8
farm [4] - 68:4, 68:6, 69:1, 69:7
farms [3] - 68:11, 68:25, 69:5
fashion [3] - 24:9, 61:16, 68:19
fatality [1] - 15:25
favor [2] - 50:16, 67:15
February [1] - 16:10
federal [2] - 39:7, 71:16
fee [1] - 12:22
feelings [1] - 38:22
feet [1] - 14:8
fellow [11] - 28:1, 32:13, 47:24, 48:8, 58:21, 62:5, 63:5, 64:14, 71:7, 72:9, 72:18
felt [4] - 39:4, 42:6, 45:7, 67:5
few [4] - 14:8, 27:21, 28:6, 36:14
FFA [3] - 37:11, 37:13, 37:17
Fiegen [40] - 3:20, 14:16, 21:14, 22:9, 22:16, 22:21, 30:9, 32:25, 33:3, 33:6, 33:9, 34:4, 35:10, 35:11, 35:25, 36:1, 36:4, 36:13, 36:16, 39:14, 39:25, 40:24, 41:1, 44:21, 44:23, 48:18, 50:19, 50:20, 51:18, 51:19, 51:24, 53:16, 55:24, 56:4, 61:22, 61:23, 65:14, 71:10, 72:25, 73:1
FIEGEN [49] - 1:11, 3:4, 3:21, 21:13, 21:20, 22:12, 22:15, 22:22, 22:25, 23:12, 33:10, 34:6, 34:17, 35:11, 36:1, 36:15, 37:6, 37:9, 37:15, 39:13, 40:25, 44:23, 48:17, 48:19, 49:16, 49:20, 49:24, 50:1, 50:20, 51:4, 51:7, 51:9, 51:11, 51:19, 51:25, 52:5, 53:17, 55:25, 56:5, 56:17, 59:11, 61:23, 64:21, 65:1, 65:8, 65:11, 65:17, 71:11, 73:1
Fiegen's [3] - 3:21, 32:8, 32:18
file [3] - 20:2, 20:5, 63:24
filed [4] - 8:3, 8:5, 9:12, 15:10
filing [2] - 41:8, 41:9
final [2] - 31:6, 70:22
finally [2] - 20:4, 41:15
findings [1] - 13:18
Findings [1] - 11:20
fine [1] - 32:15
first [18] - 3:17, 6:3, 6:17, 11:12, 15:19, 19:15, 21:15, 21:22, 30:11, 31:4, 35:16, 38:11, 45:3, 45:4, 46:23, 47:1, 62:21, 66:20
Fish [16] - 16:1, 16:8, 20:20, 21:3, 21:4, 21:10, 23:20, 23:22, 24:2, 24:23, 35:17, 38:23, 41:19, 42:4, 43:1, 43:20
fit [1] - 58:8
fits [1] - 40:20
five [2] - 5:24, 67:10
fix [1] - 14:8
fleshed [1] - 20:12
flicker [12] - 6:25, 8:21, 9:10, 14:3, 14:6, 17:11, 18:8, 68:6, 68:13, 69:24, 70:2
floor [3] - 33:3, 65:14, 71:10
folks [3] - 58:12, 67:6, 71:4
follow [4] - 5:14, 34:3, 67:7, 67:13
following [1] - 2:1
footnote [1] - 8:14
footprints [2] - 42:13, 70:22
FOR [1] - 1:5
foremost [1] - 11:12
forget [1] - 44:7
form [1] - 26:17
forth [1] - 48:6
forward [1] - 61:6
foundation [1] - 29:15
four [5] - 8:25, 14:4, 38:18, 60:10, 62:7
fragmentation [1] - 25:3
frame [2] - 41:23, 61:2
frames [1] - 56:24
free [1] - 58:7
freedom [2] - 67:4, 69:20
frequency [1] - 13:11
Friday [1] - 60:7
friendly [3] - 22:3, 35:6, 37:14
front [2] - 62:11, 62:15
FSA [1] - 37:9
fulfilled [1] - 67:14
fully [1] - 66:3
fund [4] - 16:5, 39:7, 43:22, 43:24
funded [1] - 12:16
funding [3] - 63:10, 63:11, 63:16
funds [3] - 16:3, 40:17, 63:19
future [13] - 45:8, 50:25, 52:12, 52:14, 52:16, 53:2, 53:8, 53:10, 54:9, 55:7, 55:8, 57:18, 61:17

G

gain [1] - 48:13
Game [15] - 16:8, 20:20, 21:3, 21:4, 21:10, 23:20, 23:22, 24:2, 24:23, 35:17, 38:23, 41:19, 42:4, 43:1, 43:20
GARY [1] - 1:10
general [3] - 24:16, 57:24, 58:2
generally [2] - 18:18, 25:15
generated [1] - 58:17
GF&P [8] - 16:16, 16:19, 35:18, 38:1, 40:7, 40:16, 40:18, 72:7
given [2] - 29:25, 66:13
glasses [1] - 44:22
goal [1] - 50:6
Goodwin [6] - 17:9, 18:3, 18:11, 18:13, 18:22, 19:1
governmental [1] - 9:14
grammatical [12] - 31:6, 31:8, 36:22, 37:18, 58:19, 59:3, 59:23, 62:2, 63:3, 63:4, 64:7, 65:5
Grant [5] - 5:17, 6:19, 6:23, 7:1, 12:22
GRANT [1] - 1:5
grant [8] - 5:18, 5:19, 10:21, 15:12, 17:16, 20:8, 26:11, 39:7
granted [2] - 7:19, 55:20
granting [3] - 10:17, 17:10, 19:1
grassland [3] - 25:4, 25:5, 25:7
grasslands [1] - 25:3
great [5] - 4:2, 29:14, 34:13, 42:19, 47:11
Greg [1] - 1:14
Group [3] - 17:9, 18:3, 18:11
group [4] - 4:10, 4:21, 5:4, 32:15
Group's [3] - 18:13, 18:22, 19:1
grouse [3] - 17:2, 25:6, 42:2
guess [9] - 23:13, 24:22, 34:21, 37:1, 38:15, 43:2, 43:23, 60:17, 68:20
guidance [2] - 16:8, 18:25
Guidelines [1] - 16:2
guild [1] - 25:7

H

H(ii [1] - 63:15
half [1] - 12:17
half-built [1] - 12:17
hammer [1] - 45:7
hand [1] - 33:1
handle [2] - 33:6, 44:13
Hanson [23] - 3:6, 4:11, 6:13, 19:13, 26:7, 26:25, 27:14, 31:2, 33:4, 35:12, 39:24, 41:2, 44:24, 49:16, 50:22, 51:20, 52:1, 53:18, 58:25, 59:11, 61:24, 71:12, 73:3
HANSON [101] - 1:10, 3:1, 3:7, 3:15, 3:23, 4:2, 4:6, 4:13, 4:19, 4:25, 5:6, 5:9, 10:11, 10:23, 15:3, 19:10, 19:19, 20:10, 21:5, 22:16, 22:18, 23:16, 23:19, 23:23, 24:7, 25:18, 27:1, 27:9, 27:20, 28:6, 28:14, 28:17, 28:21, 28:24, 29:7, 32:17, 33:8, 33:14, 34:1, 34:13, 35:5, 35:10, 35:12, 35:25, 36:2, 36:11, 36:20, 37:8, 37:16, 39:2, 40:24, 41:11, 42:19, 43:12, 44:3, 44:21, 44:24, 45:25, 46:11, 46:21, 47:10, 48:16, 48:18, 49:19, 49:22, 49:25, 50:11, 50:19, 50:22, 51:6, 51:8, 51:10, 51:12, 51:18, 51:20, 52:3,

52:6, 54:4, 54:20, 55:2, 55:22, 56:1, 56:22, 57:15, 58:9, 59:4, 59:14, 59:20, 59:22, 61:12, 61:22, 61:24, 64:23, 65:4, 65:9, 65:13, 65:19, 66:15, 72:20, 72:25, 73:3
happy [3] - 29:21, 32:12, 66:5
hard [4] - 38:21, 50:1, 50:23, 72:14
health [9] - 8:19, 9:6, 10:1, 11:15, 12:2, 14:1, 17:25, 18:9, 19:4
hear [5] - 41:4, 46:8, 48:10, 69:23, 70:4
heard [7] - 3:18, 44:11, 47:5, 54:22, 67:23, 67:25, 72:6
hearing [18] - 13:22, 16:16, 29:16, 29:17, 29:23, 30:25, 35:7, 35:22, 50:16, 51:3, 51:16, 56:8, 61:20, 64:18, 64:19, 65:23, 72:12, 72:22
heart [1] - 50:3
heartbreaking [1] - 67:18
heartburn [1] - 38:10
heck [1] - 58:11
held [1] - 2:2
help [2] - 40:2, 58:10
helped [2] - 70:23, 71:1
hence [3] - 29:13, 29:19, 66:14
HEREBY [1] - 74:8
Hessler [2] - 4:17, 13:21
Hessler's [1] - 8:24
hi [1] - 23:23
highlight [2] - 15:18, 40:5
Highway [2] - 12:8, 12:9
highway [1] - 12:10
Hilary [8] - 23:21, 23:23, 24:23, 40:19, 41:18, 43:1, 43:19
holiday [1] - 60:8
home [1] - 73:6
hope [4] - 38:9, 44:11, 44:14, 50:24
hoped [1] - 28:5
hour [1] - 50:8
hours [3] - 8:21, 9:11, 10:6
Hueck [1] - 1:13
hug [1] - 69:3
hurt [2] - 44:5, 61:16

I

idea [2] - 18:14, 42:24
identified [2] - 17:9, 49:8
identify [1] - 5:11
II [20] - 1:18, 5:16, 5:21, 6:14, 12:21, 15:11, 16:1, 16:7, 16:17, 17:1, 21:6, 21:25, 26:12, 31:13, 31:20, 40:14, 42:12, 61:10, 63:16, 71:13
iii [1] - 63:15
III [1] - 63:16
impact [3] - 7:10, 12:18, 18:5
impacts [7] - 7:4, 7:9, 8:9, 25:3, 25:15, 41:24, 42:17
impair [8] - 8:19, 9:5, 10:1, 10:7, 11:15, 17:25, 18:9, 19:4
implement [1] - 10:3
imposing [1] - 18:7
impress [1] - 69:19
IN [2] - 1:4, 1:5
inappropriately [1] - 9:15
Inaudible [7] - 3:8, 7:2, 9:1, 10:5, 10:10, 19:18, 59:10
Inaudible) [2] - 28:13, 59:18
include [4] - 15:14, 21:3, 32:8, 32:10
included [8] - 31:1, 31:15, 32:1, 49:3, 57:25, 58:23, 59:10, 61:7
includes [1] - 58:20
including [3] - 6:18, 8:10, 31:3
incorporated [1] - 11:20
indentation [1] - 60:3
independently [2] - 38:13, 42:22
indicate [1] - 19:25
indicated [3] - 19:18, 20:5, 31:23
indicating [1] - 6:5
indication [1] - 18:7
individual [2] - 49:11, 49:14
individuals [1] - 32:13
influence [1] - 70:23
information [5] - 27:13, 29:25, 30:2, 40:15, 69:23
infrasound [1] - 13:11
inhabitants [11] - 7:18, 8:20, 9:6, 10:1, 11:15, 13:1, 17:24, 17:25, 18:9, 18:11, 19:5
injury [5] - 7:17, 7:22, 11:14, 17:22, 19:3
input [1] - 22:21
inserting [1] - 29:22
instance [1] - 68:9
instances [2] - 11:17, 62:18
instead [8] - 17:18, 18:5, 18:18, 43:17, 59:6, 60:15, 63:1, 63:17
insure [2] - 58:16, 58:17
insured [1] - 12:25
intend [1] - 30:18
intended [2] - 59:2, 69:2
intent [1] - 23:11
intention [1] - 54:25
interactions [1] - 42:5
interest [2] - 14:25, 42:3
interested [1] - 72:7
interfere [3] - 10:15, 18:1, 19:5
interference [2] - 18:19, 18:20
interfering [1] - 17:12
interject [1] - 59:12
interstate [2] - 12:10, 14:16
Intervenor [2] - 5:5, 31:10
Intervenors [21] - 4:21, 5:2, 6:2, 6:4, 6:8, 6:23, 7:6, 9:9, 9:12, 9:20, 11:2, 11:7, 17:9, 31:9, 49:5, 50:3, 50:10, 70:10, 70:20, 71:3, 72:6
Intervenors' [1] - 6:21
intervention [1] - 14:9
involved [2] - 26:20, 47:14
iPads [1] - 33:19
ironclad [1] - 46:6
issue [3] - 14:8, 31:18, 56:9
issued [2] - 12:21, 17:18
issues [5] - 56:10, 56:15, 66:21, 66:22, 68:8
item [8] - 3:17, 36:21, 37:21, 59:5, 62:1, 63:15, 64:5, 64:8
itemized [1] - 29:22
items [7] - 28:10, 29:17, 36:10, 36:14, 63:2, 64:4, 65:6
IV [1] - 63:16

J

jeopardized [1] - 12:6
job [4] - 29:14, 38:6, 70:21, 72:5
jobs [1] - 8:11
joined [2] - 6:7, 11:1
Jon [2] - 1:14, 15:6
Joy [1] - 26:19
jump [2] - 20:24, 23:10
juncture [4] - 21:11, 28:10, 37:2, 47:25
jurisdiction [3] - 17:16, 47:6

K

Kaitlyn [1] - 1:16
Karen [9] - 27:2, 38:7, 45:22, 46:20, 52:20, 52:21, 54:10, 54:13, 59:12
karen [1] - 1:13
Kearney [5] - 1:15, 4:18, 15:6, 20:24, 23:9
keep [3] - 32:8, 43:15, 47:12
kept [1] - 41:7
key [1] - 14:23
killed [2] - 43:4, 70:25
Kim [2] - 39:25, 40:3
kind [2] - 27:8, 54:16
knock [2] - 60:9
known [1] - 61:15
Kristen [2] - 1:22, 15:6
Kristi [1] - 1:21
KRISTIE [1] - 1:11

L

Land [1] - 16:2
land [1] - 24:9
Land-Based [1] - 16:2
landowner [1] - 19:25
landowners [3] - 22:5, 29:25, 34:11
landscapes [1] - 25:4
language [6] - 12:13, 30:5, 30:24, 32:5, 46:17, 54:17
large [1] - 57:21
largest [1] - 13:13
Lashley [1] - 26:19
last [6] - 25:8, 41:24, 47:2, 50:8, 52:19, 69:6
Law [1] - 11:21
law [14] - 9:14, 12:3, 14:21, 17:20, 29:12, 53:1, 65:24, 66:11, 67:7, 67:13, 69:12, 71:16, 71:17
lawful [1] - 69:18
Lawrence [1] - 13:14
laws [9] - 6:18, 7:15, 11:12, 17:21, 56:12, 67:1, 69:15, 69:20, 71:17
lay [2] - 67:23, 68:1
leads [1] - 14:1
lease [1] - 8:11
least [1] - 14:4
leave [3] - 38:4, 38:5, 48:3
LEC [1] - 39:19
legal [4] - 9:13, 9:21, 48:20
legislate [1] - 69:8
legislator [1] - 67:3
legislators [1] - 69:19
legislature [6] - 48:23, 67:4, 69:10, 69:11, 69:13
legitimate [1] - 68:20
lengthy [3] - 71:13, 71:14, 71:15
letter [5] - 6:5, 16:10, 68:19, 68:21
level [1] - 8:21
levels [2] - 22:6, 34:12
liaison [4] - 22:4, 32:9, 34:9, 34:10
life [2] - 8:1, 24:8
light [5] - 18:14, 18:15, 23:3, 44:15, 68:6
lighting [1] - 12:15
limit [3] - 9:9, 13:23, 13:24
limited [1] - 17:15
limiting [1] - 69:3
limits [2] - 18:8, 69:3
line [16] - 3:19, 3:20, 3:24, 4:7, 4:8, 4:15,

4:16, 4:22, 10:25, 23:20, 35:16, 38:12, 48:25, 57:7, 62:21, 62:23
lines [2] - 18:15, 62:7
list [3] - 28:3, 35:15, 59:8
literature [1] - 40:8
LLC [5] - 1:4, 5:16, 5:21, 20:18, 26:12
LNTE [3] - 31:11, 31:19, 36:19
load [1] - 11:4
local [3] - 14:16, 17:1, 58:5
location [3] - 8:16, 19:24, 42:17
longspurs [1] - 25:7
look [20] - 17:8, 19:23, 32:10, 33:23, 37:3, 40:9, 41:23, 42:4, 42:17, 43:6, 49:17, 50:8, 50:11, 54:8, 57:18, 60:2, 71:16, 71:19, 71:23, 72:2
looked [4] - 30:21, 34:20, 38:23, 59:4
looking [7] - 31:5, 37:17, 45:23, 45:25, 57:19, 69:14
looks [2] - 35:6, 53:24
lose [1] - 47:18
loss [3] - 12:20, 13:17, 70:25
losses [1] - 13:15
love [2] - 45:6, 46:8
low [1] - 13:11

M

machinery [1] - 57:21
mail [1] - 26:19
mailed [1] - 27:25
mailing [2] - 28:2, 52:20
main [19] - 24:25, 25:2, 25:9, 36:3, 36:9, 36:25, 45:5, 51:5, 51:22, 52:1, 53:12, 57:4, 64:18, 64:19, 64:22, 65:14, 65:20, 72:21, 72:22
Main [1] - 1:24
maintain [1] - 8:16
maintenance [3] - 10:5, 57:24, 58:1
major [1] - 12:10
manner [1] - 49:14
March [6] - 1:8, 2:5, 3:16, 8:2, 20:6, 74:11
marked [1] - 16:10
MaRous [1] - 31:23
match [1] - 39:7
material [1] - 63:7
MATTER [1] - 1:4
matter [6] - 2:2, 5:15, 33:12, 47:8, 68:4, 74:10
MCCOMSEY [1] - 74:5
McComsey [3] - 1:24, 74:17, 74:18
means [3] - 28:8, 67:18, 68:21
medical [1] - 9:3
meet [7] - 7:13, 10:2, 11:7, 13:22, 14:21, 14:22, 40:17
meeting [3] - 3:15, 52:19, 58:13
meetings [1] - 25:1
meets [1] - 17:19
meld [1] - 70:23
mention [1] - 17:3
mentioned [6] - 15:17, 16:13, 18:3, 27:5, 41:22, 42:8
met [12] - 6:16, 7:14, 10:19, 11:16, 13:20, 15:11, 19:17, 20:7, 29:12, 45:12, 45:19, 46:14
Meyer [1] - 24:23
mic [1] - 33:2
mics [1] - 3:12
might [2] - 26:15, 58:18
miles [1] - 46:23
Miles [7] - 1:18, 4:4, 6:14, 19:14, 27:15, 28:13, 46:16
millions [1] - 70:11
minimal [3] - 18:6, 18:10, 25:15
minimized [1] - 8:20
minor [6] - 36:22, 37:18, 58:19, 59:2, 59:9, 63:4
minute [1] - 3:6
minutes [12] - 5:24, 5:25, 6:10, 9:11, 19:11, 27:21, 28:7, 28:11, 33:21, 34:2, 49:17, 49:21
misinterpreting [1] - 43:12
misspoke [1] - 6:3
misunderstanding [1] - 63:12
mitigation [2] - 63:24, 64:1
modeling [1] - 31:14
modifications [1] - 55:19
Mogen [3] - 1:21, 4:20, 5:6
MOGEN [1] - 5:8
moment [1] - 38:3
Monday [1] - 60:8
monitor [1] - 43:4
monitoring [10] - 8:7, 15:22, 15:24, 16:5, 41:21, 42:8, 42:9, 43:3, 43:8, 43:25
moon [2] - 69:24, 70:2
moot [1] - 31:18
MOREY [6] - 23:21, 24:5, 24:22, 41:18, 43:1, 43:19
Morey [10] - 4:17, 16:15, 23:21, 23:24, 24:23, 25:19, 41:12, 41:18, 43:1, 43:19
morning [3] - 52:20, 52:22, 54:15
mortality [10] - 8:7, 15:22, 15:24, 16:4, 40:9, 41:21, 43:3, 43:8, 43:25, 44:6
most [1] - 27:2
Motion [19] - 57:1, 57:5, 58:19, 58:23, 60:16, 60:18, 60:23, 61:13, 61:19, 61:24, 62:1, 62:2, 63:6, 65:22, 66:14, 70:14, 72:19, 72:21, 73:3
motion [60] - 23:18, 26:2, 26:3, 26:16, 29:13, 32:19, 33:1, 34:5, 34:14, 34:16, 35:6, 35:7, 35:12, 35:21, 35:22, 36:2, 36:4, 36:5, 36:9, 36:10, 36:12, 36:25, 37:21, 38:15, 38:20, 39:11, 44:10, 44:17, 44:25, 45:2, 45:4, 45:5, 47:11, 48:7, 50:12, 50:14, 50:24, 51:1, 51:2, 51:5, 51:6, 51:14, 51:20, 51:22, 51:24, 52:1, 52:6, 52:8, 53:12, 54:2, 60:20, 64:18, 64:19, 64:22, 65:15, 65:20, 72:21, 72:22
motions [6] - 35:14, 37:1, 52:3, 53:6, 57:4, 64:16
move [6] - 26:10, 26:15, 34:7, 38:10, 61:6
moved [1] - 14:7
MR [15] - 3:5, 4:4, 4:9, 4:11, 6:13, 10:13, 19:13, 19:21, 22:9, 22:13, 27:14, 28:12, 28:16, 39:24, 46:16
MS [32] - 4:16, 4:23, 5:3, 5:8, 11:5, 15:8, 20:22, 22:17, 22:20, 22:24, 23:8, 23:21, 24:5, 24:22, 28:20, 28:23, 40:4, 41:18, 43:1, 43:19, 45:22, 46:9, 46:20, 46:22, 49:1, 54:13, 56:13, 57:14, 57:16, 59:15, 59:21, 61:3
multiple [1] - 57:22
Murphy [4] - 1:18, 4:13, 22:10, 27:18
MURPHY [4] - 4:11, 22:9, 22:13, 39:24
must [2] - 11:13, 67:12
mute [3] - 3:11, 3:13, 33:24

N

NARUC [1] - 9:17
Natural [1] - 25:12
nature [3] - 44:7, 67:22, 71:6
nearly [1] - 14:22
necessarily [1] - 43:8
necessary [4] - 11:22, 21:4, 49:15, 66:2
need [18] - 3:1, 3:8, 4:7, 4:12, 22:20, 24:21, 26:22, 29:15, 31:15, 36:24, 37:13, 40:17, 41:12, 50:4, 58:23, 63:5, 64:12, 68:7
needed [7] - 8:15, 31:25, 38:24, 50:7, 54:7, 55:1, 59:9
needing [1] - 61:6
needs [9] - 3:2, 24:17, 32:5, 55:5, 62:8, 63:13, 64:8, 65:7
negotiated [1] - 24:19
negotiation [2] - 37:25, 41:14
negotiations [2] - 39:17, 72:16
neighboring [1] - 19:25
NELSON [29] - 1:11, 3:25, 21:17, 23:17, 26:7, 27:6, 27:23, 29:1, 29:10, 33:4, 35:9, 35:24, 36:7, 37:12, 38:21, 44:19, 48:9, 50:18, 51:17, 53:15, 53:23, 54:22, 55:13, 58:25, 60:24, 61:11, 61:21, 65:21, 72:24
Nelson [29] - 3:23, 21:15, 23:16, 26:3, 26:6, 26:16, 28:25, 34:7, 34:25, 35:8, 35:23, 36:4, 36:5, 37:7, 38:9, 44:18, 48:10, 48:21, 48:25, 50:17, 51:16, 53:15, 54:20, 59:1, 60:25, 61:3, 61:20, 65:20, 72:23
nesting [2] - 25:6, 25:7
never [3] - 9:16, 38:1, 61:15
nevertheless [2] - 17:8, 44:11
new [7] - 7:3, 16:21, 36:18, 40:15, 42:16, 56:11, 56:16
news [1] - 42:19
next [1] - 59:24
nice [1] - 3:6
night [1] - 52:19
noise [9] - 13:11, 13:23, 13:24, 14:11, 17:11, 18:7, 18:14, 22:6, 34:12
none [6] - 35:22, 50:16, 51:3, 51:16, 61:20, 64:18
nonparticipant [2] - 9:10, 13:24
nonparticipant's [1] - 8:22
nonparticipants [6] - 7:5, 13:23, 14:3, 17:12, 68:25, 69:4
nonparticipating [3] - 14:5, 22:5, 34:11
Notary [2] - 74:7, 74:18
noted [1] - 8:14
nothing [3] - 19:8, 31:7, 72:1
notice [1] - 64:11
notions [1] - 9:13
number [9] - 23:25,

25:1, 27:22, 28:9, 32:20, 43:23, 64:11, 66:16, 70:22
numeral [1] - 63:15

O

o'clock [1] - 52:20
objected [2] - 9:18, 56:11
objection [1] - 20:1
objectives [1] - 42:3
obligations [2] - 53:7, 63:9
obliged [1] - 67:14
obtain [1] - 63:25
obtained [1] - 63:24
obviously [6] - 24:8, 32:22, 61:14, 66:6, 68:10, 70:14
OF [6] - 1:2, 1:4, 1:5, 74:1, 74:3
offered [1] - 40:15
officer [4] - 22:4, 34:9, 34:10, 37:10
often [1] - 26:8
old [2] - 7:5, 67:3
older [1] - 7:1
omnibus [1] - 32:15
once [4] - 36:25, 37:19, 42:1, 60:4
one [38] - 5:1, 5:24, 8:15, 10:24, 13:15, 15:23, 20:11, 20:13, 20:16, 23:13, 27:3, 27:7, 27:8, 37:24, 38:2, 38:11, 38:18, 38:24, 39:6, 41:7, 42:7, 43:18, 43:23, 44:13, 44:17, 45:2, 46:8, 46:18, 49:10, 49:18, 50:1, 52:6, 52:7, 59:6, 62:6, 67:22, 72:15
one-year [2] - 38:2, 38:18
ones [1] - 46:1
Onida [2] - 1:24, 74:13
open [4] - 3:12, 21:3, 48:11, 58:13
opening [1] - 20:5
operating [1] - 43:5
operation [9] - 10:4, 10:5, 23:4, 23:6, 30:14, 30:16, 30:19, 31:12, 32:1
operational [1] - 30:15
opinion [1] - 48:21
opportunity [4] - 40:5, 42:11, 47:19, 61:18
oppose [3] - 38:22, 41:3, 41:9
opposed [3] - 20:20, 32:15, 61:7
option [2] - 8:15, 8:17
options [1] - 17:8
Order [1] - 30:1
order [4] - 3:17, 31:6, 31:14, 39:6
ordering [1] - 14:6
orderly [3] - 10:15, 18:2, 19:6
ordinance [3] - 7:1, 7:3, 7:5
ordinances [3] - 6:23, 7:13, 71:17
ordinarily [1] - 73:5
organisms [1] - 25:14
origin [1] - 27:8
original [1] - 15:21
ORIGINAL [1] - 1:6
originally [2] - 41:16, 41:19
otherwise [2] - 48:24, 68:7
ouch [1] - 44:25
outgunned [1] - 70:10
outlined [3] - 15:15, 16:22, 30:22
outside [2] - 25:17, 69:17
overview [1] - 69:16
own [4] - 14:2, 32:18, 36:5, 64:6
owner [11] - 31:23, 45:8, 46:15, 52:13, 52:17, 53:10, 55:8, 56:16, 62:24, 63:1, 64:9
owners [5] - 52:14, 53:3, 53:8, 54:9, 56:11

P

p.m [1] - 14:11
pace [1] - 5:13
page [7] - 57:6, 60:2, 62:6, 62:11, 62:16, 62:18, 62:19
pages [1] - 71:5
palatable [1] - 14:13
paper [2] - 9:17, 33:15
papers [1] - 37:20
paragraph [23] - 30:3, 30:7, 30:8, 30:20, 30:21, 32:9, 36:18, 37:7, 37:22, 38:11, 45:6, 45:17, 46:3, 47:9, 47:23, 48:3, 48:15, 50:13, 52:15, 52:24, 62:19
paragraphs [1] - 53:9
Parks [15] - 16:8, 20:20, 21:3, 21:4, 21:10, 23:20, 23:22, 24:2, 24:24, 35:17, 38:23, 41:19, 42:4, 43:2, 43:20
part [6] - 9:18, 27:2, 41:4, 55:5, 64:2, 68:8
participant's [1] - 8:23
parties [9] - 3:2, 4:7, 5:24, 28:18, 34:18, 34:19, 70:9, 72:7, 72:14
passed [2] - 58:19, 67:2
past [1] - 12:20
Paulson [2] - 1:15, 15:6
Pause [1] - 49:23
pause [1] - 26:19
payment [1] - 8:10
payments [1] - 8:11
peak [1] - 12:12
people [11] - 3:8, 5:14, 14:9, 29:20, 34:3, 35:3, 41:13, 47:14, 49:20, 58:11, 66:2
per [1] - 9:11
percent [1] - 43:9
perhaps [3] - 45:4, 54:10, 58:10
period [1] - 57:7
permanent [1] - 8:12
permissible [1] - 18:19
permission [4] - 22:5, 30:14, 34:11, 55:12
PERMIT [1] - 1:5
Permit [1] - 17:18
permit [34] - 5:16, 5:19, 10:21, 11:8, 15:12, 15:14, 17:10, 17:17, 18:23, 19:1, 20:8, 26:11, 29:13, 30:1, 30:13, 45:7, 45:9, 45:19, 46:4, 46:13, 52:16, 53:9, 54:1, 54:9, 55:6, 55:7, 55:16, 56:11, 65:25, 66:14, 67:15, 71:14, 71:18, 71:22
permits [3] - 7:20, 10:17, 45:15
permitted [1] - 13:16
person [1] - 55:18
person's [1] - 59:24
personal [1] - 17:13
persons [1] - 27:10
perspective [1] - 31:17
pertaining [2] - 20:14, 23:25
Ph.D [1] - 9:3
phone [2] - 4:12, 27:11
phones [2] - 3:11, 33:19
phrase [3] - 36:22, 54:10, 59:2
piece [1] - 71:1
Pierre [1] - 2:4
place [9] - 3:11, 3:12, 24:17, 31:19, 37:25, 41:14, 62:25, 64:12, 66:9
placed [1] - 62:14
placement [1] - 12:7
plain [4] - 12:13, 35:18, 45:10
plan [6] - 5:13, 13:6, 20:3, 40:20, 63:24, 64:1
plant [7] - 12:1, 12:7, 12:9, 17:5, 17:7, 19:17, 19:22
pocket [1] - 44:13
point [14] - 3:3, 7:6, 26:18, 31:2, 32:21, 37:1, 37:16, 43:17, 52:4, 55:14, 61:9, 61:10, 62:3, 63:11
points [1] - 68:23
population [1] - 17:2
populations [1] - 42:18
portion [2] - 33:5, 48:2
pose [5] - 7:17, 7:22, 11:13, 17:22, 19:3
poses [1] - 12:1
position [4] - 33:23, 39:8, 41:15, 70:16
positions [1] - 9:20
possession [4] - 52:17, 53:10, 55:9, 55:11
possible [1] - 50:7
postconstruction [14] - 8:6, 15:22, 15:24, 16:4, 16:25, 38:2, 38:14, 41:21, 42:8, 42:9, 42:23, 43:3, 43:8, 43:25
posted [2] - 27:17, 29:2
posthearing [2] - 11:19, 13:18
posting [1] - 28:3
potential [3] - 7:8, 16:25, 49:7
potentially [1] - 49:13
practical [1] - 31:17
practices [1] - 10:4
prairie [2] - 17:1, 25:6
pre [1] - 16:24
Precision [1] - 1:24
preconstruction [1] - 13:10
predator [1] - 43:22
predictions [1] - 15:25
preparation [1] - 52:19
prepared [1] - 41:20
present [3] - 3:22, 47:14, 56:2
presentation [1] - 6:12
presented [7] - 9:3, 9:24, 11:21, 30:5, 38:5, 65:24, 68:16
pressing [1] - 61:15
pretty [1] - 43:2
previous [2] - 25:1, 61:5
primary [1] - 25:5
print [1] - 33:14
printer [1] - 33:18
priority [1] - 43:23
pro [2] - 1:20, 1:21
problem [3] - 33:7, 58:2, 60:25
problems [1] - 47:4
proceed [5] - 5:22, 26:23, 28:25, 29:9, 37:8
proceeding [4] - 6:15, 6:22, 9:17, 9:23
Proceedings [1] - 1:7
proceedings [3] - 2:2, 74:9, 74:12
process [11] - 20:13, 28:2, 29:4, 29:9, 39:3, 62:14, 66:16, 67:8, 71:9, 71:14, 71:15
produce [2] - 8:10, 18:6
Professional [2] - 74:6, 74:19
proffered [1] - 9:16
profit [1] - 12:19
profound [1] - 69:4
prohibit [1] - 18:23
project [51] - 6:17, 6:22, 6:25, 7:16, 7:22, 8:1, 8:2, 8:9, 8:18, 9:5, 9:25, 10:5,

10:7, 10:10, 10:15, 10:17, 11:11, 11:13, 11:14, 12:4, 12:11, 12:16, 12:17, 13:3, 13:4, 13:15, 13:16, 13:23, 14:12, 16:24, 17:1, 18:4, 18:5, 18:10, 18:12, 18:24, 19:2, 20:18, 21:7, 24:4, 24:14, 31:23, 35:19, 43:5, 43:6, 43:10, 44:1, 45:11, 62:24, 63:1, 64:9
projects [4] - 25:3, 25:15, 41:24, 42:5
promised [1] - 41:15
proof [6] - 6:16, 7:14, 10:20, 11:8, 12:5, 15:11
proper [3] - 34:25, 70:9, 70:15
properties [8] - 13:14, 14:5, 14:7, 22:6, 34:12, 66:25, 68:2, 68:25
property [13] - 8:11, 13:13, 17:12, 17:13, 17:16, 18:15, 18:21, 53:8, 66:3, 66:7, 68:3, 71:25
proposal [4] - 15:16, 15:21, 29:19, 49:3
proposed [12] - 10:9, 10:14, 11:11, 12:7, 13:3, 15:13, 16:21, 19:2, 20:4, 24:4, 26:17, 50:15
proposes [1] - 15:23
proposing [2] - 30:20, 40:6
prospectively [1] - 52:14
protect [5] - 11:10, 14:15, 57:19, 66:2, 67:12
protected [1] - 13:1
protection [2] - 14:6, 14:10
protects [1] - 57:20
prove [1] - 13:7
proven [1] - 12:24
proves [1] - 67:13
provide [7] - 11:22, 12:3, 13:8, 14:4, 18:16, 20:23, 39:25
provided [4] - 13:2, 13:4, 54:18, 67:16
provides [1] - 45:7
providing [1] - 29:24
provision [1] - 32:3
proximity [2] - 17:5, 68:3
Public [10] - 3:16, 55:17, 56:6, 69:17, 70:17, 71:15, 71:20, 72:4, 74:7, 74:18
PUBLIC [2] - 1:1, 1:10
public [7] - 12:2, 12:6, 14:14, 22:4, 32:9, 34:9, 34:10
public's [1] - 27:25
PUC [10] - 17:15, 17:16, 17:18, 45:9, 45:11, 45:15, 45:18, 46:14, 49:9, 53:25
PUC's [1] - 18:4
pull [2] - 32:14, 33:5
purpose [1] - 53:2
pursuant [7] - 5:21, 26:12, 52:17, 53:11, 54:7, 55:11, 55:20
put [7] - 23:7, 26:20, 31:21, 34:6, 57:17, 59:18, 66:1
putting [3] - 29:14, 38:6, 48:14

Q

quality [12] - 12:2, 12:4, 13:11, 24:1, 24:5, 24:6, 24:8, 25:10, 25:20
questions [14] - 19:7, 20:11, 21:12, 21:14, 21:21, 23:2, 23:13, 23:17, 23:25, 29:21, 32:12, 34:4, 53:14, 71:24
quick [1] - 54:14
quite [1] - 71:15
quote [2] - 13:25, 14:2
quoted [1] - 9:17

R

railroad [1] - 18:20
raptor [6] - 16:6, 42:12, 42:18, 43:5, 43:6, 43:16
rather [3] - 14:20, 52:19, 69:3
rationale [3] - 16:9, 40:6, 58:6
read [9] - 5:13, 20:19, 41:6, 41:8, 46:17, 55:3, 55:14, 58:17, 68:22
reading [1] - 55:22
reads [1] - 38:12
ready [5] - 23:18, 31:20, 52:2, 65:12
real [5] - 18:17, 38:6, 38:17, 38:19, 67:23
realize [1] - 66:23
reallocated [1] - 16:5
really [11] - 25:12, 42:11, 47:23, 57:20, 63:4, 65:7, 68:17, 69:10, 70:20, 72:5
realm [1] - 25:11
Realtime [2] - 74:6, 74:19
reason [5] - 14:15, 30:23, 41:17, 60:8, 61:1
reasonable [1] - 31:13
reasons [1] - 40:21
rebuttal [2] - 5:25, 19:12
receive [3] - 14:5, 29:13, 30:13
received [7] - 27:12, 27:16, 28:16, 28:19, 28:23, 60:4
recent [1] - 12:8
receptors [1] - 7:6
recess [2] - 3:14, 33:25
recognize [4] - 21:7, 25:19, 65:10, 69:8
recognized [2] - 18:17, 18:18
recommendation [1] - 15:10
recommended [1] - 18:8
recommends [2] - 15:19, 16:13
record [14] - 6:15, 6:21, 8:18, 9:19, 10:9, 10:14, 18:7, 19:16, 46:5, 62:3, 71:20, 71:21, 72:1, 72:3
redoing [1] - 64:10
reduce [2] - 9:1, 13:24
redundant [1] - 47:25
refer [1] - 52:9
referenced [2] - 11:19, 46:18
references [1] - 46:24
refers [2] - 57:7, 63:18
regard [5] - 8:2, 19:17, 19:22, 20:2, 49:11
regarding [3] - 16:16, 17:4, 61:10
regards [2] - 25:10, 58:14
region [3] - 10:16, 18:2, 19:6
Registered [2] - 74:5, 74:19
regular [1] - 57:21
regulation [2] - 7:12, 13:5
regulations [2] - 12:5, 69:15
regulatory [1] - 69:3
regurgitate [1] - 67:19
Reiss [12] - 1:22, 15:7, 15:8, 19:11, 20:14, 22:19, 23:8, 30:6, 32:4, 49:1, 56:13, 61:4
REISS [13] - 4:16, 15:8, 20:22, 22:17, 22:20, 22:24, 23:8, 28:23, 49:1, 56:13, 57:14, 57:16, 61:3
related [1] - 14:23
relation [1] - 24:5
relationship [1] - 24:7
relevant [1] - 9:4
reliable [1] - 11:18
relied [1] - 9:22
relief [1] - 64:14
relieves [1] - 41:5
remaining [1] - 27:18
remember [4] - 3:12, 22:1, 49:4, 61:4
reminder [1] - 5:10
remotely [1] - 28:4
remove [3] - 46:4, 49:12, 57:23
removed [3] - 55:5, 62:9, 62:13
render [1] - 18:21
renewed [1] - 8:17
repaired [1] - 57:9
repeat [1] - 42:16
rephrase [1] - 24:12
replace [1] - 37:22
replacement [1] - 30:8
replete [1] - 9:13
replication [1] - 29:3
reported [1] - 13:15
Reported [1] - 1:24
Reporter [4] - 74:6, 74:19, 74:19
reporter [1] - 74:9
Reporting [1] - 1:24
representatives [1] - 27:19
represented [1] - 5:3
representing [3] - 4:14, 4:21, 5:2
request [2] - 8:8, 60:7
requests [1] - 10:20
require [4] - 15:23, 16:17, 16:20, 31:10
required [11] - 6:19, 7:11, 10:3, 11:23, 12:3, 12:23, 15:21, 21:9, 23:4, 30:12, 49:10
requirement [3] - 30:17, 31:14, 31:16
requirements [4] - 11:8, 67:10, 67:11, 67:14
requires [1] - 54:3
requiring [1] - 30:11
reread [1] - 34:24
rereading [1] - 52:18
research [2] - 42:14, 42:16
residence [2] - 8:22, 8:23
residents [3] - 12:18, 14:13, 14:17
Resources [1] - 25:12
resources [2] - 7:23, 25:16
respect [1] - 69:13
respectfully [1] - 10:20
respective [1] - 14:7
respects [1] - 70:10
responsibility [1] - 69:21
rest [2] - 4:10, 18:13
restriction [1] - 14:11
rests [1] - 11:8
result [1] - 18:24
review [2] - 11:19, 11:23
reviewing [1] - 33:10
reviews [1] - 17:18
revised [2] - 15:20, 15:23
revision [1] - 16:7
revisit [1] - 69:15
revoke [4] - 45:15, 45:18, 47:7, 49:9
revoked [3] - 45:9, 45:11, 46:13
RIDGE [1] - 1:4
Ridge [50] - 1:18, 4:3, 5:16, 5:20, 5:25, 6:1, 6:3, 6:9, 6:11, 6:14, 12:21, 15:11, 15:25, 16:6, 16:17, 16:23, 17:1, 19:11, 20:18, 20:21, 20:25, 21:6, 21:8, 21:25, 22:8, 22:10, 26:12, 27:19, 31:11, 31:13, 31:20, 35:18, 39:16, 39:20,

39:23, 40:7, 40:13, 40:14, 42:2, 42:10, 42:12, 45:23, 46:2, 46:10, 50:5, 61:9, 71:13
Ridge's [1] - 6:24
rights [4] - 17:13, 17:17, 66:7, 71:25
risks [1] - 15:25
Rislov [1] - 1:14
road [2] - 18:19, 58:4
roads [5] - 14:18, 20:2, 25:17, 57:19, 57:21
roadway [1] - 14:14
Robish [2] - 4:20, 4:24
role [1] - 18:4
Roman [1] - 63:15
route [1] - 12:10
RPR [1] - 1:24
rules [7] - 6:18, 7:15, 11:12, 11:23, 12:23, 17:21, 55:20
running [1] - 47:4

S

S7 [10] - 15:15, 24:17, 26:14, 29:8, 29:14, 29:18, 31:5, 51:8, 52:9, 64:2
safe [2] - 31:25, 73:6
safety [12] - 8:19, 10:1, 10:3, 10:4, 10:8, 11:15, 12:2, 12:6, 14:15, 17:25, 18:9, 19:4
scenes [1] - 56:9
scheduled [1] - 12:11
SCHUMACHER [11] - 3:5, 4:4, 4:9, 6:13, 10:13, 19:13, 19:21, 27:14, 28:12, 28:16, 46:16
Schumacher [9] - 1:18, 4:4, 6:14, 19:14, 27:9, 27:15, 28:13, 46:11, 46:16
Schumacher's [1] - 11:24
scientific [1] - 40:8
SDCL [3] - 5:21, 12:13, 26:13
se [2] - 1:20, 1:21
season [1] - 12:12
second [9] - 16:4, 16:12, 20:16, 30:23, 40:14, 43:25, 57:7, 62:18, 62:23
secondly [1] - 30:12
section [2] - 34:8, 34:9
see [15] - 21:9, 24:21, 27:4, 27:10, 27:17, 35:18, 36:24, 37:9, 37:17, 38:18, 46:17, 56:7, 56:8, 58:8, 66:10
seem [3] - 58:18, 60:12, 60:13
self [1] - 27:24
self-explanatory [1] - 27:24
semantics [2] - 45:14, 57:8
send [3] - 26:21, 33:16, 33:17
sense [2] - 59:23, 64:25
sent [2] - 6:5, 27:2
sentence [5] - 19:20, 47:2, 58:16, 63:19, 63:22
sentences [2] - 46:23, 47:1
separately [1] - 32:15
series [1] - 26:16
serious [6] - 7:17, 7:22, 11:14, 12:1, 17:22, 19:3
seriously [2] - 12:17, 69:14
Service [1] - 16:2
set [1] - 16:3
setback [3] - 14:14, 69:12, 69:15
setbacks [4] - 6:19, 10:3, 68:9, 69:9
settlement [3] - 39:17, 39:22, 41:4
seven [1] - 10:6
several [3] - 20:12, 29:17, 71:24
shadow [6] - 6:25, 8:21, 9:10, 14:3, 17:11, 18:8
shall [18] - 5:18, 5:21, 13:1, 16:23, 20:17, 20:20, 35:17, 52:10, 52:16, 55:7, 55:20, 59:6, 59:13, 59:16, 60:4, 63:24
shall...all [1] - 59:17
sheet [1] - 12:20
short [7] - 3:14, 33:25, 38:3, 38:16, 40:21, 41:12, 55:14
shorthand [2] - 74:9
shoulders [1] - 53:8
show [3] - 3:9, 7:2, 7:3
showing [2] - 7:13, 9:25
shown [1] - 10:2
shows [8] - 6:15, 6:22, 6:25, 7:16, 8:18, 10:7, 18:7, 45:5
shut [2] - 31:24, 55:15
side [1] - 32:24
significant [4] - 41:14, 43:18, 44:6, 62:17
similarly [2] - 9:12, 62:5
simply [4] - 14:20, 43:14, 43:17, 55:6
site [2] - 12:8, 25:16
sites [1] - 9:1
situation [1] - 64:8
six [1] - 62:7
sleep [1] - 13:25
slight [1] - 15:16
slow [2] - 5:13, 10:11
small [2] - 14:7, 58:18
smidgen [1] - 10:11
smoothly [1] - 28:5
social [2] - 7:18, 17:23
soft [1] - 50:21
softens [1] - 50:3
soils [2] - 58:17, 59:17
solely [1] - 11:9
solid [1] - 13:6
someone [3] - 57:2, 64:3, 65:15
sometime [1] - 64:21
somewhere [2] - 46:12, 47:16
soon [1] - 27:6
sorry [1] - 57:15
sort [2] - 38:17, 59:7
sound [16] - 6:24, 7:2, 8:21, 9:2, 9:10, 11:18, 11:21, 11:25, 13:10, 19:15, 22:1, 22:2, 31:14, 56:2, 68:6, 68:13
sounding [1] - 4:1
South [18] - 1:24, 2:3, 2:4, 3:16, 8:13, 11:11, 11:23, 12:23, 14:25, 16:8, 24:23, 25:11, 40:12, 41:19, 42:15, 43:20, 74:7, 74:13
SOUTH [2] - 1:2, 74:1
southeastern [1] - 42:15
spacial [1] - 41:23
speaking [3] - 5:5, 5:8, 5:11
species [2] - 25:7, 42:4
specific [3] - 21:2, 42:4, 46:17
specifically [2] - 17:20, 25:16
specify [1] - 47:17
speech [1] - 11:24
spell [2] - 30:23, 31:21
spend [1] - 70:11
spoken [2] - 60:17, 60:22
spray [3] - 31:24, 31:25, 35:2
sprayers [2] - 35:2
SS [1] - 74:2
STAFF [1] - 1:12
Staff [72] - 1:23, 4:14, 6:2, 6:9, 8:5, 13:14, 13:21, 15:5, 15:9, 15:10, 15:13, 15:19, 15:22, 16:7, 16:12, 16:13, 16:15, 16:21, 17:3, 17:7, 17:13, 18:8, 19:7, 19:18, 19:23, 21:2, 21:22, 21:25, 22:7, 23:1, 23:9, 26:14, 28:2, 28:18, 28:22, 28:23, 29:2, 29:8, 29:13, 30:3, 30:5, 31:1, 32:4, 37:25, 38:23, 45:23, 48:20, 49:2, 49:5, 49:8, 50:2, 56:5, 56:10, 56:14, 57:6, 57:17, 60:4, 60:10, 61:1, 61:4, 61:8, 61:15, 61:18, 62:9, 64:3, 67:10, 70:18, 71:3, 71:21, 72:4
Staff's [10] - 15:15, 15:17, 16:9, 20:15, 22:23, 23:10, 24:17, 26:4, 50:4, 72:16
stand [1] - 19:15
standard [1] - 17:19
standards [2] - 12:4, 13:5
standpoint [7] - 25:24, 42:21, 47:20, 54:8, 66:24, 67:7, 69:14
Stanton [1] - 9:17
start [9] - 3:10, 3:13, 20:14, 20:16, 23:6, 27:21, 28:7, 28:10, 66:19
started [2] - 42:1, 42:2
starting [1] - 23:4
state [18] - 7:11, 12:3, 14:18, 14:21, 17:20, 20:18, 29:12, 37:10, 40:20, 42:18, 48:23, 10
54:15, 55:6, 57:10, 63:9, 63:14, 65:2, 71:17
State [2] - 2:3, 74:7
STATE [2] - 1:2, 74:1
statement [3] - 12:20, 64:22, 69:5
statements [1] - 65:2
States [1] - 25:17
states [9] - 48:2, 52:16, 53:9, 53:25, 55:11, 59:5, 60:4, 63:8, 63:13
stating [1] - 20:17
stationed [1] - 8:13
statute [17] - 46:18, 46:24, 46:25, 48:11, 48:13, 48:22, 49:8, 49:9, 49:11, 54:3, 54:16, 54:24, 55:4, 55:14, 56:2, 56:15, 66:13
stemmed [1] - 49:4
stems [1] - 16:14
stick [1] - 38:25
stickler [1] - 57:8
still [7] - 26:25, 33:10, 40:3, 42:7, 45:2, 50:4, 55:10
store [1] - 59:17
story [1] - 70:13
strange [1] - 21:6
strike [1] - 60:20
striking [1] - 57:12
stringent [1] - 56:12
strip [1] - 59:16
strongest [1] - 70:8
structures [1] - 7:10
struggle [2] - 47:23, 68:17
studied [1] - 7:9
studies [8] - 7:2, 7:3, 7:11, 7:23, 11:21, 13:12, 19:15, 43:2
study [20] - 6:25, 11:18, 11:25, 13:10, 13:11, 16:6, 21:1, 22:1, 22:2, 38:17, 39:19, 40:17, 42:2, 42:12, 42:25, 43:9, 43:16, 43:22, 43:24, 44:14
subcontractors [1] - 12:25
subject [1] - 55:16
subjective [2] - 31:8, 52:8
submission [1] - 13:9
submitted [4] - 6:24,

12:5, 13:14, 19:16
substantial [4] - 7:21, 9:21, 9:24, 13:17
substantially [6] - 8:19, 9:5, 9:25, 10:7, 17:24, 19:4
sudden [1] - 34:8
suffice [1] - 25:24
sufficient [1] - 70:1
suggested [3] - 13:19, 31:10, 52:25
suggestion [2] - 32:9, 58:15
suggestions [2] - 20:15, 27:4
SULLY [1] - 74:3
summary [2] - 10:19, 14:19
sunglasses [1] - 44:19
supplant [2] - 38:11, 60:21
support [6] - 8:8, 9:8, 18:17, 48:1, 70:3, 70:14
supported [5] - 9:21, 10:16, 68:4, 68:14, 68:15
supporting [3] - 19:1, 32:24, 72:19
survey [1] - 16:25
surveys [1] - 7:24
Swanson [5] - 6:5, 6:6, 10:24, 21:18, 66:6
Swanson's [1] - 68:19
system [2] - 23:4, 23:6

T

takings [1] - 9:14
talks [1] - 21:25
task [1] - 66:12
taxes [1] - 8:11
tear [1] - 58:3
teleconferenced [1] - 2:1
Teleconferenced [1] - 1:7
temporary [1] - 8:11
terms [2] - 25:13, 55:18
test [2] - 22:6, 34:12
testified [3] - 9:5, 12:15, 12:19
testify [1] - 41:13
testimony [7] - 8:25, 9:8, 9:15, 41:20, 67:23, 68:2, 70:8
THE [5] - 1:1, 1:2, 1:4, 1:10
themselves [2] - 6:23, 17:10
theory [1] - 70:1
therefore [2] - 7:8, 29:12
therein [1] - 55:19
they've [2] - 28:1, 70:19
thinking [6] - 37:10, 37:12, 57:12, 62:5, 64:24, 70:24
third [2] - 40:16, 60:3
thoughts [1] - 23:10
thousands [1] - 71:5
threat [4] - 7:17, 7:22, 11:13, 17:22
three [13] - 5:25, 6:10, 11:16, 12:20, 16:5, 19:11, 33:18, 34:19, 38:18, 40:21, 47:20, 47:22, 62:7
three-year [1] - 16:5
threshold [1] - 7:6
throughout [3] - 52:9, 52:11, 66:16
throw [1] - 21:10
Thurber [2] - 1:14, 15:6
Title [1] - 54:5
today [12] - 4:24, 5:23, 11:4, 15:18, 17:3, 32:4, 41:3, 46:19, 47:5, 71:14, 72:6, 72:12
today's [1] - 52:19
together [4] - 29:14, 38:7, 57:17, 66:2
took [4] - 34:7, 37:25, 41:14, 74:9
top [2] - 62:19, 62:23
topsoil [2] - 59:16, 59:17
totally [1] - 53:19
touch [1] - 66:17
touched [1] - 68:19
tourism [1] - 12:12
township [1] - 14:18
toxic [1] - 13:7
traded [1] - 39:5
traffic [3] - 12:10, 12:11, 20:2
transcribed [1] - 5:11
transcribing [1] - 5:12
Transcript [1] - 1:7
transcript [1] - 2:1
transcription [1] - 74:12
transfer [3] - 53:25, 56:10, 56:19
transferred [1] - 55:16
transferring [1] - 56:16
transfers [2] - 56:7, 57:2
travelers [1] - 14:15
traveling [1] - 57:21
tremendous [1] - 71:3
trepidation [1] - 47:11
trespass [1] - 9:14
tribes [1] - 7:24
tried [2] - 50:7, 57:18
trip [1] - 73:6
trouble [1] - 64:3
troubling [1] - 66:18
trucks [1] - 58:1
true [1] - 74:11
truth [1] - 12:22
try [2] - 3:10, 19:20
trying [1] - 50:2
turbine [9] - 8:16, 9:1, 49:14, 62:11, 62:15, 62:23, 64:9, 69:6
turbines [7] - 14:7, 25:16, 31:12, 31:25, 43:5, 49:12, 62:8
turn [7] - 10:24, 11:2, 15:5, 20:10, 33:17, 51:23, 60:2
turning [1] - 8:9
twice [1] - 37:17
two [30] - 3:6, 13:14, 15:16, 15:21, 21:7, 28:1, 33:19, 34:18, 38:4, 38:12, 38:13, 39:6, 40:13, 41:16, 41:17, 41:21, 41:22, 42:9, 42:22, 42:24, 43:2, 43:10, 43:17, 44:18, 46:23, 47:1, 59:15, 60:9, 62:6
two-minute [1] - 3:6
two-year [6] - 38:4, 38:13, 41:16, 41:17, 42:22, 42:24
type [2] - 5:14, 39:4
types [1] - 59:1
typically [1] - 13:13

U

U.S [1] - 16:1
uncomfortable [2] - 48:7, 67:21
unconvinced [1] - 17:13
under [8] - 14:21, 20:3, 25:11, 29:12, 37:18, 55:20, 56:2, 59:8
undermine [1] - 63:3
understood [1] - 59:22
undertake [1] - 38:13
unduly [3] - 10:15, 18:1, 19:5
United [1] - 25:17
unless [4] - 46:17, 54:1, 63:4, 65:15
unnecessary [2] - 46:25, 50:9
unpersuasive [1] - 14:20
unreasonable [2] - 14:12, 18:24
unusable [1] - 18:21
up [17] - 8:12, 10:11, 27:16, 29:8, 29:18, 31:7, 38:25, 42:2, 43:13, 43:16, 43:23, 52:24, 55:15, 56:19, 59:13, 66:23, 69:6
upcoming [1] - 48:23
useful [1] - 40:17
Utilities [8] - 3:16, 55:17, 56:6, 69:17, 70:17, 71:15, 71:20, 72:4
UTILITIES [2] - 1:1, 1:10
utility [1] - 44:1
utilize [1] - 30:11

V

vacillating [1] - 48:5
valuation [3] - 67:23, 67:24, 68:2
valuations [1] - 71:25
value [3] - 68:7, 68:11, 69:7
values [1] - 68:3
variety [1] - 24:19
verb [1] - 59:19
verbatim [1] - 30:5
verbiage [1] - 52:8
verify [2] - 28:13, 28:15
viable [1] - 13:6
VICE [1] - 1:11
Vice [1] - 21:21
voluntarily [1] - 33:5
voluntary [2] - 16:1, 16:18
vote [2] - 44:20, 67:14
voted [1] - 36:9
votes [13] - 35:11, 35:12, 36:1, 44:23, 44:25, 50:20, 50:22, 51:19, 51:20, 61:23, 61:24, 73:1, 73:3

W

waiver [1] - 63:23
waste [3] - 13:6, 13:7
water [7] - 24:1, 24:5, 24:9, 24:15, 25:10, 25:20, 25:22
waters [1] - 25:17
wear [1] - 58:2
website [4] - 26:20, 28:3, 29:3
week [1] - 10:6
weekends [1] - 60:9
weight [1] - 6:14
welcomed [1] - 3:5
welfare [9] - 8:19, 9:6, 10:1, 11:15, 12:18, 12:25, 17:25, 18:9, 19:4
Wells [1] - 39:25
WELLS [1] - 40:4
wells [1] - 42:8
whereas [1] - 43:5
whichever [1] - 45:20
whoever's [1] - 65:10
whole [2] - 68:18, 70:13
whooping [4] - 30:24, 31:3, 32:22, 37:5
wildlife [6] - 15:25, 24:3, 24:10, 24:14, 25:23, 40:20
Wildlife [1] - 16:2
willing [3] - 31:24, 39:18, 39:21
Wind [22] - 1:18, 5:16, 5:21, 6:14, 15:11, 16:1, 16:2, 16:6, 16:7, 16:17, 16:24, 17:1, 20:18, 20:21, 20:25, 21:6, 26:12, 31:11, 31:13, 31:20, 35:18, 61:10
wind [24] - 5:16, 5:20, 25:2, 25:14, 26:11, 40:9, 41:23, 42:5, 42:10, 62:8, 62:10, 62:14, 62:15, 64:9, 66:18, 68:3, 68:6, 68:11, 68:25, 69:1, 69:5, 69:6, 69:7
WIND [2] - 1:4, 1:5
window [1] - 38:16
wish [3] - 36:5, 65:15, 69:19
withdraw [1] - 57:1
witness [6] - 8:24, 13:14, 13:21, 14:2,

16:15, 31:22
witnesses [1] - 9:15
WITTLER [1] - 74:5
Wittler [4] - 1:24, 5:12, 74:17, 74:18
wondering [4] - 24:10, 24:20, 58:11, 62:16
word [18] - 28:15, 29:22, 35:16, 38:11, 38:12, 57:12, 58:15, 60:21, 62:7, 62:8, 62:9, 62:10, 62:11, 62:12, 62:14, 62:20, 64:8, 69:1
words [2] - 43:15, 59:15
workers [2] - 8:12, 8:13
world [1] - 32:24
worry [1] - 37:2
wrestling [2] - 47:12, 47:25
write [1] - 52:21
writes [1] - 53:1
written [4] - 26:17, 31:7, 34:22, 52:24

X

Xcel [3] - 16:3, 40:7, 40:16

Y

yardstick [1] - 69:25
year [23] - 15:23, 16:4, 16:5, 38:2, 38:4, 38:13, 38:18, 38:24, 39:6, 40:14, 41:7, 41:16, 41:17, 42:7, 42:22, 42:24, 43:18, 43:25, 44:13, 44:18
years [17] - 9:4, 12:20, 15:22, 25:8, 38:18, 40:13, 41:21, 41:22, 41:25, 42:9, 42:15, 42:17, 43:17, 47:22, 48:23, 66:19, 66:20
yield [1] - 65:13
yourself [2] - 5:11, 5:13
yourselves [1] - 3:13

Z

zero [1] - 14:6

THE PUBLIC UTILITIES COMMISSION

OF THE STATE OF SOUTH DAKOTA

= =

IN THE MATTER OF THE APPLICATION BY CROWNED RIDGE WIND II, LLC FOR A PERMIT OF A WIND ENERGY FACILITY IN DEUEL, GRANT, AND CODINGTON COUNTIES — EL19-027 ORIGINAL

= =

Transcript of Proceedings
November 26, 2019

= =

BEFORE THE PUBLIC UTILITIES COMMISSION,
GARY HANSON, CHAIRMAN (via teleconference)
CHRIS NELSON, VICE CHAIRMAN
KRISTIE FIEGEN, COMMISSIONER (via teleconference)

COMMISSION STAFF
Karen Cremer
Greg Rislov
Adam de Hueck
Darren Kearney
Jon Thurber
Patrick Steffensen
Joseph Rezac
Lorena Reichert
Kaitlyn Baucom
Deb Gregg

A P P E A R A N C E S

Miles Schumacher,
appearing on behalf of Crowned Ridge Wind II;

A.J. Swanson,
appearing on behalf of the Intervenors;

Amanda Reiss and Kristen Edwards,
appearing on behalf of Staff.

Reported By Cheri McComsey Wittler, RPR, CRR
Precision Reporting, 213 S. Main, Onida, South Dakota
cwittler@venturecomm.net

The following transcript of proceedings was held in the above-entitled matter at the South Dakota State Capitol, 500 East Capitol Avenue, Pierre, South Dakota, on the 26th day of November, 2019.

ACTING CHAIRMAN NELSON: EL19-027, In the Matter of the Application by Crowned Ridge Wind 2, LLC for a Permit of a Wind Energy Facility in Deuel, Grant, and Codington Counties.

The question is shall the Commission grant Intervenor's Motion for Examination or Admission Upon Stipulation of Counsel? Or how shall the Commission proceed?

And we are going to go first to Mr. Swanson representing the Intervenors.

MR. SWANSON: Thank you, Mr. Chairman. The motion that I filed on November the 16th was intended to preserve the opportunity to have my Intervenor and witness Steven Greber -- the opportunity to present his testimony in Affidavit form.

My motion is supplemented then by letters of November 21 and November 22. Basically what is happening or what I have attempted to clarify is that I think having Mr. Greber stand cross-examination remotely by phone right now or tomorrow is no longer necessary.

He assures me as long as attention is paid to the fact that he is 12 hours preceding us on average -- the ship will tend to move around in the sea so it could be 11 hours or 13 hours. As long as we attend to that from Pierre during the course of the hearing that is now

scheduled for February 4 through 7, he should be able to participate by telephone.

ACTING CHAIR NELSON: And so this is Commissioner Nelson. Are you withdrawing your motion?

MR. SWANSON: As long as there's nothing else to discuss that's on the table now. I guess if Mr. Schumacher is taking the position that he is going to require personal attendance by Mr. Greber, then I would like to hear that statement today because Mr. Greber is going to be on a vessel leased to the U.S. government and will not be available during the February setting.

ACTING CHAIR NELSON: Okay. Then, given that, we'll play this out. Anything else at this point, Mr. Swanson?

MR. SWANSON: No.

ACTING CHAIR NELSON: And we'll go to Mr. Schumacher with Crowned Ridge.

MR. SCHUMACHER: Thank you, Mr. Chairman.

We don't see any reason to compel personal attendance under the circumstances. We have some history working with witnesses testifying telephonically before the Commission and believe this is a circumstance where that is appropriate. So we have no objection to that.

ACTING CHAIR NELSON: And Staff.

MS. REISS: Thank you. This is Amanda Reiss for

Staff. And Staff would have no objection to allowing Mr. Greber to testify via telephone.

ACTING CHAIR NELSON: And just give me a moment. I want to consult with counsel for a moment.

(Pause.)

ACTING CHAIR NELSON: So I don't think, Mr. Swanson, there is any need for rebuttal. Upon consulting counsel here, we can proceed either of two ways. We can either have you on the fly turn this into a motion to allow for telephonic testimony, or you can simply withdraw this today and file that motion sometime later.

MR. SWANSON: Well, I'd be happy to turn it into a motion without further ado to allow this witness to appear telephonically. Mr. Greber also stated that he didn't think the captain would allow Miles Schumacher to try and join the ship during the course of the hearing so I guess present by an appearance by telephone is the only option I have left.

ACTING CHAIR NELSON: Well, if they're sailing in the South Pacific, maybe we all want to join them. I'm not sure.

Mr. Schumacher, anything for you to weigh in?

MR. SCHUMACHER: Thank you. No, Chairman Nelson.

ACTING CHAIR NELSON: And Staff.

MS. REISS: No, thank you.

ACTING CHAIR NELSON: Okay. With that, I'm going to open it up to Commissioners for any questions or comments. Obviously, we're kind of changing things up here.

Questions or comments from the Commissioners?

CHAIRMAN HANSON: Sounds like everything has been resolved. Thank you, Mr. Chair.

ACTING CHAIR NELSON: And I will simply say I'm pretty well on record as being leery of telephonic testimony because we've had some bad experiences in the past, and it's particularly difficult for our court reporter sometimes to follow that testimony.

Given this circumstance, I'm willing to risk it one more time. My apologies to Cheri in advance. But it's with the caveat that if the connection is not good and such that the court reporter cannot follow the communication, you know, we'll pull the plug on it at that point. That's the risk that he runs.

MR. SWANSON: Well, it is a phone connection provided by the U.S. government. What can go wrong?

ACTING CHAIR NELSON: We'll see. Thank you.

Additional discussion.

COMMISSIONER FIEGEN: You know, I appreciate

Commissioner Nelson's comment about if it's not working, we have to stop the flexibility and make sure our record is correct and complete. So I agree with Commissioner Nelson.

ACTING CHAIR NELSON: Additional discussion?

Seeing none, I will move in EL19-027 that we grant an alternative motion to allow for telephonic testimony, with the condition that it is of a quality that those of us in person and the court reporter can follow.

Discussion on the motion.

Hearing none, all those in favor will vote aye; those opposed, nay.

Commissioner Fiegen.

COMMISSIONER FIEGEN: Fiegen votes aye.

ACTING CHAIR NELSON: Commissioner Hanson.

CHAIRMAN HANSON: Aye.

ACTING CHAIR NELSON: And Nelson votes aye. Motion carries.

We appreciate all the parties working together to kind of help make this happen, and we're hoping for great audio that day.

STATE OF SOUTH DAKOTA)

:SS CERTIFICATE

COUNTY OF SULLY)

I, CHERI MCCOMSEY WITTLER, a Registered Professional Reporter, Certified Realtime Reporter and Notary Public in and for the State of South Dakota:

DO HEREBY CERTIFY that as the duly-appointed shorthand reporter, I took in shorthand the proceedings had in the above-entitled matter on the 26th day of November, 2019, and that the attached is a true and correct transcription of the proceedings so taken.

Dated at Onida, South Dakota this 12th day of December, 2019.

_____

Cheri McComsey Wittler,
Notary Public and
Registered Professional Reporter
Certified Realtime Reporter

1

11 [1] - 3:24
12 [1] - 3:22
12th [1] - 8:13
13 [1] - 3:24
16th [1] - 3:12

2

2 [1] - 3:2
2019 [4] - 1:8, 2:4, 8:11, 8:14
21 [1] - 3:17
213 [1] - 1:24
22 [1] - 3:17
26 [1] - 1:8
26th [2] - 2:4, 8:10

4

4 [1] - 4:1

5

500 [1] - 2:3

7

7 [1] - 4:1

A

A.J [1] - 1:21
able [1] - 4:1
above-entitled [2] - 2:2, 8:10
ACTING [15] - 3:1, 4:3, 4:12, 4:16, 4:24, 5:3, 5:6, 5:20, 6:1, 6:3, 6:10, 6:23, 7:5, 7:16, 7:18
Adam [1] - 1:14
additional [2] - 6:24, 7:5
admission [1] - 3:6
ado [1] - 5:14
advance [1] - 6:16
Affidavit [1] - 3:15
agree [1] - 7:3
allow [4] - 5:10, 5:14, 5:16, 7:7
allowing [1] - 5:1
alternative [1] - 7:7
Amanda [2] - 1:22, 4:25
AND [1] - 1:5
apologies [1] - 6:16
appear [1] - 5:15
appearance [1] - 5:18
appearing [3] - 1:20, 1:21, 1:23
APPLICATION [1] - 1:4
Application [1] - 3:2
appointed [1] - 8:8
appreciate [2] - 6:25, 7:20
appropriate [1] - 4:23
assures [1] - 3:21
attached [1] - 8:11
attempted [1] - 3:18
attend [1] - 3:24
attendance [2] - 4:8, 4:20
attention [1] - 3:21
audio [1] - 7:22
available [1] - 4:11
Avenue [1] - 2:3
average [1] - 3:22
aye [4] - 7:12, 7:15, 7:17, 7:18

B

bad [1] - 6:12
Baucom [1] - 1:17
BEFORE [1] - 1:10
behalf [3] - 1:20, 1:21, 1:23
BY [1] - 1:4

C

cannot [1] - 6:18
Capitol [2] - 2:3
captain [1] - 5:16
carries [1] - 7:19
caveat [1] - 6:17
CERTIFICATE [1] - 8:2
Certified [2] - 8:6, 8:19
CERTIFY [1] - 8:8
CHAIR [14] - 4:3, 4:12, 4:16, 4:24, 5:3, 5:6, 5:20, 6:1, 6:3, 6:10, 6:23, 7:5, 7:16, 7:18
Chair [1] - 6:9
Chairman [3] - 3:11, 4:18, 5:24
CHAIRMAN [5] - 1:10, 1:11, 3:1, 6:8, 7:17
changing [1] - 6:5
CHERI [1] - 8:5
Cheri [3] - 1:24, 6:16, 8:18
CHRIS [1] - 1:11
circumstance [2] - 4:22, 6:15
circumstances [1] - 4:20
clarify [1] - 3:18
Codington [1] - 3:4
CODINGTON [1] - 1:5
comment [1] - 7:1
comments [2] - 6:5, 6:7
Commission [3] - 3:5, 3:7, 4:22
COMMISSION [3] - 1:1, 1:10, 1:12
Commissioner [5] - 4:4, 7:1, 7:3, 7:14, 7:16
COMMISSIONER [3] - 1:11, 6:25, 7:15
Commissioners [2] - 6:4, 6:7
communication [1] - 6:19
compel [1] - 4:19
complete [1] - 7:3
condition [1] - 7:8
connection [2] - 6:17, 6:21
consult [1] - 5:4
consulting [1] - 5:8
correct [2] - 7:3, 8:12
counsel [3] - 3:7, 5:4, 5:8
COUNTIES [1] - 1:5
Counties [1] - 3:4
COUNTY [1] - 8:3
course [2] - 3:25, 5:17
court [3] - 6:13, 6:18, 7:9
Cremer [1] - 1:13
cross [1] - 3:19
cross-examination [1] - 3:19
CROWNED [1] - 1:4
Crowned [3] - 1:20, 3:2, 4:17
CRR [1] - 1:24
cwittler@venturecomm.net [1] - 1:25

D

DAKOTA [2] - 1:2, 8:1
Dakota [5] - 1:24, 2:2, 2:3, 8:7, 8:13
Darren [1] - 1:14
Dated [1] - 8:13
de [1] - 1:14
Deb [1] - 1:17
December [1] - 8:14
Deuel [1] - 3:3
DEUEL [1] - 1:5
difficult [1] - 6:13
discuss [1] - 4:6
discussion [3] - 6:24, 7:5, 7:11
DO [1] - 8:8
duly [1] - 8:8
duly-appointed [1] - 8:8
during [3] - 3:25, 4:11, 5:17

E

East [1] - 2:3
Edwards [1] - 1:22
either [2] - 5:8, 5:9
EL19-027 [3] - 1:4, 3:1, 7:6
energy [1] - 3:3
ENERGY [1] - 1:5
entitled [2] - 2:2, 8:10
examination [2] - 3:6, 3:19
experiences [1] - 6:12

F

facility [1] - 3:3
FACILITY [1] - 1:5
fact [1] - 3:22
favor [1] - 7:12
February [2] - 4:1, 4:11
Fiegen [2] - 7:14, 7:15
FIEGEN [3] - 1:11, 6:25, 7:15
file [1] - 5:11
filed [1] - 3:12
first [1] - 3:9
flexibility [1] - 7:2
fly [1] - 5:9
follow [3] - 6:14, 6:18, 7:10
following [1] - 2:1
FOR [1] - 1:4
form [1] - 3:15

G

GARY [1] - 1:10
given [2] - 4:12, 6:15
government [2] - 4:10, 6:22
Grant [1] - 3:3
GRANT [1] - 1:5
grant [2] - 3:5, 7:7
great [1] - 7:22
Greber [6] - 3:14, 3:19, 4:8, 4:9, 5:2, 5:15
Greg [1] - 1:13
Gregg [1] - 1:17
guess [2] - 4:6, 5:18

H

HANSON [3] - 1:10, 6:8, 7:17
Hanson [1] - 7:16
happy [1] - 5:13
hear [1] - 4:9
hearing [3] - 3:25, 5:17, 7:12
held [1] - 2:1
help [1] - 7:21
HEREBY [1] - 8:8
history [1] - 4:20
hoping [1] - 7:21
hours [3] - 3:22, 3:24
Hueck [1] - 1:14

I

II [2] - 1:4, 1:20
IN [2] - 1:4, 1:5
intended [1] - 3:12
Intervenor [1] - 3:13
Intervenor's [1] - 3:6
Intervenors [2] - 1:21, 3:10

J

join [2] - 5:17, 5:21
Jon [1] - 1:15
Joseph [1] - 1:16

K

Kaitlyn [1] - 1:17
karen [1] - 1:13
Kearney [1] - 1:14
kind [2] - 6:5, 7:21
Kristen [1] - 1:22
KRISTIE [1] - 1:11

L

leased [1] - 4:10
leery [1] - 6:11
left [1] - 5:19
letters [1] - 3:16
LLC [2] - 1:4, 3:2
Lorena [1] - 1:16

M

Main [1] - 1:24
MATTER [1] - 1:4
matter [3] - 2:2, 3:1, 8:10

MCCOMSEY [1] - 8:5
McComsey [2] - 1:24, 8:18
Miles [2] - 1:19, 5:16
moment [2] - 5:3, 5:4
motion [10] - 3:6, 3:12, 3:16, 4:4, 5:10, 5:11, 5:14, 7:7, 7:11, 7:19
move [2] - 3:23, 7:6
MR [7] - 3:11, 4:5, 4:15, 4:18, 5:13, 5:24, 6:21
MS [2] - 4:25, 6:2

N

nay [1] - 7:13
necessary [1] - 3:20
need [1] - 5:7
NELSON [16] - 1:11, 3:1, 4:3, 4:12, 4:16, 4:24, 5:3, 5:6, 5:20, 6:1, 6:3, 6:10, 6:23, 7:5, 7:16, 7:18
Nelson [4] - 4:4, 5:25, 7:4, 7:18
Nelson's [1] - 7:1
none [2] - 7:6, 7:12
Notary [2] - 8:7, 8:18
nothing [1] - 4:5
November [6] - 1:8, 2:4, 3:12, 3:17, 8:11

O

objection [2] - 4:23, 5:1
obviously [1] - 6:5
OF [6] - 1:2, 1:4, 1:5, 8:1, 8:3
one [1] - 6:16
Onida [2] - 1:24, 8:13
open [1] - 6:4
opportunity [2] - 3:13, 3:14
opposed [1] - 7:13
option [1] - 5:19
ORIGINAL [1] - 1:5

P

Pacific [1] - 5:21
paid [1] - 3:21
participate [1] - 4:2
particularly [1] - 6:13
parties [1] - 7:20
past [1] - 6:13
Patrick [1] - 1:15
Pause [1] - 5:5
PERMIT [1] - 1:5
permit [1] - 3:3
person [1] - 7:9
personal [2] - 4:8, 4:19
phone [2] - 3:20, 6:21
Pierre [2] - 2:3, 3:25
play [1] - 4:13
plug [1] - 6:19
point [2] - 4:13, 6:20
position [1] - 4:7
preceding [1] - 3:22
Precision [1] - 1:24
present [2] - 3:14, 5:18
preserve [1] - 3:13
pretty [1] - 6:11
proceed [2] - 3:8, 5:8
proceedings [3] - 2:1, 8:9, 8:12
Proceedings [1] - 1:7
Professional [2] - 8:6, 8:19
provided [1] - 6:22
Public [2] - 8:7, 8:18
PUBLIC [2] - 1:1, 1:10
pull [1] - 6:19

Q

quality [1] - 7:8
questions [2] - 6:4, 6:7

R

Realtime [2] - 8:6, 8:19
reason [1] - 4:19
rebuttal [1] - 5:7
record [2] - 6:11, 7:2
Registered [2] - 8:5, 8:19
Reichert [1] - 1:16
Reiss [2] - 1:22, 4:25
REISS [2] - 4:25, 6:2
remotely [1] - 3:19
Reported [1] - 1:24
Reporter [4] - 8:6, 8:19, 8:19
reporter [4] - 6:14, 6:18, 7:9, 8:9
Reporting [1] - 1:24
representing [1] - 3:10
require [1] - 4:8
resolved [1] - 6:9
Rezac [1] - 1:16
Ridge [3] - 1:20, 3:2, 4:17
RIDGE [1] - 1:4
risk [2] - 6:15, 6:20
Rislov [1] - 1:13
RPR [1] - 1:24
runs [1] - 6:20

S

sailing [1] - 5:20
scheduled [1] - 4:1
SCHUMACHER [2] - 4:18, 5:24
Schumacher [5] - 1:19, 4:7, 4:17, 5:16, 5:23
sea [1] - 3:23
see [2] - 4:19, 6:23
seeing [1] - 7:6
setting [1] - 4:11
shall [2] - 3:5, 3:7
ship [2] - 3:23, 5:17
shorthand [2] - 8:9
simply [2] - 5:11, 6:10
sometime [1] - 5:11
sometimes [1] - 6:14
sounds [1] - 6:8
SOUTH [2] - 1:2, 8:1
South [6] - 1:24, 2:2, 2:3, 5:21, 8:7, 8:13
SS [1] - 8:2
staff [4] - 4:24, 5:1, 6:1
Staff [1] - 1:23
STAFF [1] - 1:12
stand [1] - 3:19
STATE [2] - 1:2, 8:1
State [2] - 2:2, 8:7
statement [1] - 4:9
Steffensen [1] - 1:15
Steven [1] - 3:14
stipulation [1] - 3:7
stop [1] - 7:2
SULLY [1] - 8:3
supplemented [1] - 3:16
Swanson [4] - 1:21, 3:9, 4:14, 5:7
SWANSON [5] - 3:11, 4:5, 4:15, 5:13, 6:21

T

table [1] - 4:6
teleconference [2] - 1:10, 1:11
telephone [3] - 4:2, 5:2, 5:18
telephonic [3] - 5:10, 6:11, 7:7
telephonically [2] - 4:21, 5:15
tend [1] - 3:23
testify [1] - 5:2
testifying [1] - 4:21
testimony [5] - 3:15, 5:10, 6:12, 6:14, 7:8
THE [5] - 1:1, 1:2, 1:4, 1:10
Thurber [1] - 1:15
today [2] - 4:9, 5:11
together [1] - 7:20
tomorrow [1] - 3:20
took [1] - 8:9
transcript [1] - 2:1
Transcript [1] - 1:7
transcription [1] - 8:12
true [1] - 8:11
try [1] - 5:17
turn [2] - 5:9, 5:13
two [1] - 5:8

U

U.S [2] - 4:10, 6:22
under [1] - 4:20
up [2] - 6:4, 6:5
UTILITIES [2] - 1:1, 1:10

V

vessel [1] - 4:10
via [3] - 1:10, 1:11, 5:2
VICE [1] - 1:11
vote [1] - 7:12
votes [2] - 7:15, 7:18

W

ways [1] - 5:9
weigh [1] - 5:23
willing [1] - 6:15
Wind [2] - 1:20, 3:2
WIND [2] - 1:4, 1:5
wind [1] - 3:3
withdraw [1] - 5:11
withdrawing [1] - 4:4
witness [2] - 3:14, 5:14
witnesses [1] - 4:21
WITTLER [1] - 8:5
Wittler [2] - 1:24, 8:18

STATE OF SOUTH DAKOTA

PUBLIC UTILITIES COMMISSION

Docket No. EL19-027

In the Matter of the Application by Crowned Ridge Wind II, LLC for a permit of a Wind Energy Facility in Deuel, Grant, and Codington Counties, South Dakota.

ORIGINAL

TRANSCRIPT OF PUBLIC INPUT MEETING

BEFORE THE PUBLIC UTILITY COMMISSION:

Commissioner Gary Hanson, Chairman
Commissioner Chris Nelson, Vice Chairman
Commissioner Kristie Fiegen

Watertown Event Center
1901 9th Avenue Southwest
Watertown, South Dakota

August 26, 2019
5:30 P.M.

ORIGINAL

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PROCEEDINGS

CHAIRMAN HANSON: Good afternoon, Ladies and Gentlemen. Thank you for stopping by. We're looking forward to your comments. My name is Gary Hanson. I'm the Chairman of South Dakota PUC. With me this evening are Vice Chair Chris Nelson and Commissioner Kristie Fiegen. We appreciate the fact that you traveled this far so far and we encourage you to share your thoughts with us.

Our purpose this evening -- And I have some preliminary business I have to get out of the way and give you some -- You know, before I do that, I saw Fred Deutsch in the audience, and Nancy York. We appreciate your legislative delegation to an extent being here. You're pointing.

UNIDENTIFIED SPEAKERS: Hugh Bartels.

CHAIRMAN HANSON: Hugh Bartels. Excuse me. Representative Bartels.

REPRESENTATIVE BARTELS: I snuck in late.

CHAIRMAN HANSON: I hope that doesn't cost me in the legislature.

REPRESENTATIVE BARTELS: We'll see how appropriations goes. (Laughter.)

CHAIRMAN HANSON: We never want to offend anyone in appropriations.

Our purpose this evening is to hold a Public Input Meeting in Docket EL19-027, *In the Matter of the Application by Crowned Ridge Wind II, LLC, for a Permit of a Wind Energy Facility in Deuel, Grant, and Codington Counties.*

On July 9, 2019, Crowned Ridge Wind II filed an application to construct a wind energy facility. The project would be situated within approximately a 60,996-acre project area in the townships of Waverly, Kranzburg North and Kranzburg South, Troy, Rome, Goodwin, and Havana. The total installed capacity of the project would be approximately 301 megawatts with up to 132 wind turbines and other associated facilities. The proposed project would utilize the Crowned Ridge Wind II five-mile 230 kV generation tie line to transmit generation. Crowned Ridge Wind II has a purchase and sale agreement with Northern States Power to sell the Project and Facility Permit if it is constructed. The project is proposed to be completed in 2020 and cost approximately $425 million.

A copy of the application is with the Deuel, Grant and Codington County Auditors. It is also available on the Commission's website under EL19-027, or by calling, writing, or stopping by the Commission office.

At tonight's input meeting, the Applicant is to provide information to the public about the proposed project and to hear your comments about the project. We encourage you to comment. Please keep in mind that no decisions are being made tonight or in the immediate future.

Some important words regarding your rights and opportunities. By law, the parties to the proceeding at this time are Crowned Ridge Wind II, Commission staff, and nine persons who have already applied for and have been granted party status. Under South Dakota law, each municipality, county, and governmental agency in the area where the facility is proposed to be sited or any person residing in the area where the facility is proposed to be sited or any directly interested person may be granted party status by making written application to the Commission on or before 5:00 p.m. on September 9, 2019.

We have applications for party status available here this evening, if you'd like to apply. The form is also available on the Commission's website or by contacting the Commission. You do not need to become a party to the docket for your voice to be heard by the Commission.

We're here tonight to hear your comments and

your concerns about the project. We also accept comments in writing from anyone, either by mail, personal delivery, or e-mailing the Commission right up until the time of the decision. You only need to apply for party status if you want to formally provide actual testimony or evidence, conduct discovery, cross-examine witnesses, make legal arguments, and preserve your right to appeal to the courts if you do not believe our decision is legally correct.

The Commissioners must base our decision upon the strength of actual evidence presented to the Commission.

No one is being sworn in or cross-examined this evening, and your credibility or expertise is not being examined. So the comments made this evening are not considered to be evidence.

Your comments will provide the Commission and the Applicant with issues that are, perhaps, unique or that you just want to make certain we consider during the evidentiary hearing. As Commissioners we have numerous questions of our own that we will ask during the evidentiary hearing. Tonight is your night to ask questions and make comments for the Applicant to answer and for us to make certain they are answered during the evidentiary hearing.

Each of the Commissioners and staff thoroughly read all comments submitted by the public, and comments are also filed in the docket.

If you have written comments for us tonight, please give them to the Commission staff.

For the permit to be approved, state law states that the Applicant must show that the proposed wind facility will comply with all applicable laws and rules; will not pose a threat of serious injury to the environment, nor to the social and economic condition of inhabitants or expected inhabitants in the siting area; will not substantially impair the health, safety, or welfare of the inhabitants; and will not unduly interfere with the orderly development of the region with due consideration given to the views of governing bodies of affected local units of government.

Based on these factors, the Commission will decide whether the permit for the proposed project should be granted, denied, or granted with such terms and conditions as the Commission finds appropriate. State law requires that we issue our decision within nine months of the application being filed. That date is April 9, 2020.

Nancy McClanahan is our court reporter here

this evening. You may have noticed as I was speaking, when I'm reading every once in a while I catch myself and need to slow down. She's a very good typist. We've had her here a number of times. And we appreciate very much if you are going to read something, that you at least read it slowly. Please use the microphone when you speak, introduce yourself, spell your name slowly, so we can, as Commissioners, get it written down. Speak clearly and at a reasonable pace. Like I say, she's very proficient, but we don't want any auctioneering this evening.

In order to ensure fairness and impartiality throughout the nine months allotted to this process, the Commissioners and their advisers are not allowed to engage in private ex parte conversations with anyone regarding this project. However, some Commission staff members may visit with and answer most of your questions. Those Commission staff members who are here are Darren Kearney, Eric Paulson, Mikal Hanson. I believe Kristen Edwards. Was she going to be?

KAREN CREMER: No, she is not here.

CHAIRMAN HANSON: She is not here. And Brittany Olson. Feel free to seek them out if you have any questions, or if you need help with anything

this evening.

Please write your name and information on the sign-in sheets so we have a record of who attended. Please mute your cell phones.

We're going to begin this evening by having the representatives of Crowned Ridge Wind II make their presentation to explain the proposed project. Following that presentation, we will open it up to you. This will be your opportunity to make comments and to ask questions.

I would like to see a show of hands of approximately how many people plan to speak this evening so we can get an idea of the amount of time for each person. About 15?

KAREN CREMER: Yes.

CHAIRMAN HANSON: Anyone having a problem with holding it within five minutes? Given the amount of time to get up to the -- We just have a microphone. Okay. So we'll hand the microphone around to you as we do that too.

COMMISSIONER FIEGEN: And I have one more.

CHAIRMAN HANSON: Okay. Great. So we'll be looking at five minutes hoping that you can keep it within that, if you can. Maybe your spouse will yield another five minutes too. And with that, Commissioner

Fiegen has an additional item.

COMMISSIONER FIEGEN: This is off the record.

(DISCUSSION OFF THE RECORD.)

CHAIRMAN HANSON: So with that, I will turn the meeting over to the Applicant for their presentation.

DARYL HART: Good evening. My name is Daryl Hart. I'm the Directer of Renewable Development, NextEra Energy Resources. NextEra Energy Resources filed the Crowned Ridge Wind, LLC Application, and Crowned Ridge Wind II is the wholly owned, indirect subsidiary of NextEra Energy Resources.

This is a little background. NextEra Energy Resources is an American company and wholly-owned, wholly owns about 118-plus wind farms and is the largest generator of wind and solar power in the world, as of 2018. Crowned Ridge Wind II or CR II -- CRW II possesses a Purchase and Sale Agreement with Northern States Power, NSP. What does that mean? Well, Crowned Ridge Wind II will be developed as well as permitted and constructed by NextEra Energy Resources. At which point, at commercial operation, we expect that to happen around the fourth quarter of 2020. At which point, once operations are declared,

the site will then be transferred over to NSP for ownership and operation for the life of the wind farm.

Just a little background about the project. Crowned Ridge Wind II is seeking an energy facility permit approval for the proposal of up to 300.6 megawatt project in Codington, Deuel, and Grant counties, South Dakota. The project is to satisfy NSP's renewable energy requirements within their service territory within the MISO, which is the Midcontinent Independent System Operator regional grid, specifically to deliver zero-emission and competitively-priced electricity. The demand for this power has already been approved and recognized by the Minnesota Public Utilities Commission, as well as the North Dakota Public Service Commission. Therefore, the Crowned Ridge Wind II project will supplement NSP's pursuit of, including higher ratio of renewable energy within their generation portfolio.

So at this time, I will be handing over the microphone to Tyler Wilhelm, who is the senior project manager for the project.

TYLER WILHELM: Good evening, everybody. Thank you all for your attendance here tonight. I'm going to walk you through a project overview of the Crowned Ridge II project.

To the right you'll see a depiction of what is the project area. Some local landmarks that help with the physical orientation of the project boundary or project area, the black line running through roughly the center of the polygon there, that's Highway 212. Just north of that. We have Kranzburg to the south. You have Goodwin. All the way up to the northwest where you see that dot, that's Waverly, just outside of the project area. And then you have Bemis down there to the southeast within the project footprint.

The Crowned Ridge II facility permit application was filed on July 9, 2019. Assuming the South Dakota PUC's nine-month review and approval process, we would expect to commence construction in Q2 2020, or the second quarter of 2020.

The project has a nameplate capacity of 300.6 megawatts, represents a $400 million investment in the state of South Dakota and is located in Codington, Grant, and Deuel counties.

On this slide is the same project area that you saw on the last; however, this includes some more detail and which is the project site map. This was filed as Figure 3-A in our application, and we'll be providing an updated figure for the site plan on our

supplemental testimony in September.

The project area is comprised of 60,996 acres. Of those acres, 40,911 contain active wind farm agreements. The project will consist of 132 GE turbines; 66 of which will be located in Codington; 66 that will be located in Deuel; and two turbine locations that are proposed in Grant. Additional project facilities include access roads to the turbines and other project facilities, underground collection cabling, two MET towers, and an operations and maintenance facility.

So an update on the land portion of the project. Land acquisition is near complete. Nearly all have been obtained to support the project that was proposed. There are three easements that are still pending. And I hope everybody can see where there is kind of a peach-ish color on the map. Those represent where they're still pending approval. One of those is for a turbine location. The other property is for a collection corridor that would support an adjacent turbine, and then we have one construction access road needed to support the construction process for a proposed turbine location. So those are the three that are outstanding.

Since our filing we entered into three wind

farm easement agreements to support the Crowned Ridge II turbine location 125, CR II turbine location 129, and then also an additional easement to support a collection corridor, which is just south of Bemis. All of these properties were previously noted as pending approval on our application, and it will be updated in our supplemental testimony. The project team anticipates that we'll have all easements in place by September 20, 2019.

This slide depicts the two turbine technologies that will be utilized for the project. The one on the left is the primary turbine. It's a GE 2.3 megawatt turbine. There will be 117 of these, and they are roughly 485 feet tall.

The second turbine that will be utilized on the right, that's our GE 2.1 megawatt turbine. There will be 15 of these, and these roughly 452 feet tall. The difference in the turbine height is the actual tower height. It is not the length of the blades, which are consistent on both models.

There will be a big boost to the local economy with 250 construction jobs, which will increase local spend, and 12 full-time, long-term O&M jobs created for the life of the project, as well as improvements to existing township and county roads.

Such improvements are necessary to accommodate the construction traffic, as well as the heavy project components that will be delivered to the project area. $40 million in payments will go out to landowners for the life of the project for the generating assets.

This is a depiction of the tax revenues that will be generated over the 25-year period of the project. You can see it's broken down here by county. Deuel County being first, reflecting a total $12.3 million generated over the 25-year operating life; second being Codington, at $12.9 million; and then Grant County where our project is -- excuse me, our footprint is much smaller, will be roughly $190,000 generated.

Over the development site we've had the opportunity and privilege to get involved with some of the local support, the organizations, groups, and events. I'll note a couple of these for you. The first one being the Crystal Springs Rodeo. There is a picture of that on the top right. We were the exclusive sponsor of the Extreme Bulls event that was implemented, I believe, two years ago? The next one being, we were able to provide contributions to the Wind Application Center at the South Dakota State University to help that program stay alive. And we've

also recently contributed turbine components to Mitchell Tech to help with some hands-on training opportunity there. The last one I'll note is from the turbine purchase order to support the project, we were able to extend employment at Molded Fiber Glass in Aberdeen as well as adding 60 additional jobs to that workforce.

Stakeholder outreach has been extensive as well since commencing development on the project. A couple to note, we've had a lot of involvement with planning and zoning boards, as well as the county commissions in Codington, Deuel, and Grant County. We've linked up with the Sisseton-Wahpeton Oyate Tribe, as well as several others to help with a lot of our cultural survey work in the field. And we've also had open coordination with the United States Fish & Wildlife Service, South Dakota Game, Fish & Parks, as well as the South Dakota State Historical Society. And that picture down at the right was captured during one of our landowner events held actually in this building here.

The project compliance. For many of those in the audience here today may be aware that all three counties did adopt new siting requirements for wind energy systems in their counties, which we were able

to work hand-in-hand with those counties on. Some consistencies that you'll see across all three counties would be that the one-mile setback was implemented from the municipal boundaries. In Deuel County there is also a one-mile setback implemented from the lake district at Bullhead Lake. Another consistency you'll see is that all counties include a shadow flicker limitation at all receptors of no more than 30 hours on an annual basis.

I'll go ahead and pass the mic to Mark Thompson to continue on with the wind farm description.

MARK THOMPSON: Good afternoon. As Tyler said, Mark Thompson. I'm the manager for the engineering group that supports the wind development team. You know, we have gone through some of the details as far as the wind farm outlay. I'll just go through some of the engineering aspect that helps guide the whole wind farm process and the whole operation and aspect of the wind farm.

The four major aspects of the wind farm includes: The turbines. These generate the megawatts that we hear so often being mentioned. Once those megawatts are generated, they have to go to the substation where they're integrated, where a step up

in terms of their voltage and integrated in the existent power system that we have.

The mode of transportation. Transportation because you're moving the power is the cable, the cables that you put in the ground, and these are buried at the depth of 48 inches. Once you get to the substation, you have major components such as the GSU that is used to step up the voltage so that it can intermingle with the existing transmission facility.

One facility that is very important is the operational facility. This facility is usually used to monitor the site to ensure safety operation and reliability of the farm.

The picture says a thousand words. What we have here is an actual turbine foundation. You can see excavation and the soil that is piled up around the actual foundation. The next slide I'll show you where the reclamation of the soil. It's part of the design, of course, to make sure that the turbine will stay in place, even under the most adverse wind condition. So what you have here is what is known, typically known as a spread foundation. We've excavated to a depth of about eight feet. We placed rebar, poured concrete of course, and you can see the stockpile around the foundation. At the end of the

day, all of that will be replaced and be part of the actual foundation. Once the foundation is in the ground and it's cured, it's ready to be -- to accommodate the tower itself.

The turbine, as you know, consists of three major components. No. 1 is the actual tower, which is in three pieces. You have the base and then the top section. On top of the top section, you have the nacelle, and of course you have the rotor blade that is attached to the nacelle.

I want you to focus just at the bottom where the crane, that's known as the crane pad. All of that used to be soil that was stockpiled. As you can see, it's now reclaimed. It's actually part of the foundation.

Here, I mentioned earlier, the cable that is used to move the power from the actual generator to the substation. The top picture shows the actual trench that has been open to lay these cables in to the depth of 48 inches, as I mentioned before. Once these are laid in, the soil is replaced and it's compacted to ensure that you don't have erosion in the various diggings of the machines.

The second picture shows the substation itself being built. Those are actual support steel

inside the substation, and once this is completed, it will accommodate all the major equipment needed for the operation of the substation itself.

I mentioned before the operation of the site. It's very important that we maintain operability, maintainability, safety. This site, Crowned Ridge, will have up to eight techs in the field that are local, with a site manager. The site will also be operated remotely using a SCADA communication. Meaning, you can stay, for this for particular NSP, they can stay at their control center and monitor what goes on at the site. If something goes wrong, they will know in time and take the appropriate action.

So decommissioning. After the site has exceeded its useful life, it's going to be decommissioned. NSP will be responsible for all that cost. But all aboveground facilities will be removed. Facilities within the ground, those will also be removed. And the site will be reclaimed to preconstruction condition.

This is the contact information for Tyler. If you have questions at the end or you can certainly make contact with him and get the information you want. That concludes my presentation. Thank you.

CHAIRMAN HANSON: Thank you very much. I

appreciate the presentation. And no doubt there is a few folks with some questions and maybe some folks with some answers. So we'll appreciate it if you sort of squirrel in and have a little bit of a challenge getting in to the front. There are some chairs up here that say *Reserved* on them, and they're reserved for you now if you're going to speak.

So there is no numbers to be chosen. It's just up to you folks to when you'd like to get the urge and feel compelled to fill our heads with good information, just come on forward. Good evening.

KATHY HAAS: Good evening.

CHAIRMAN HANSON: Thanks for breaking the ice for us.

KATHY HAAS: I'm Kathy Hass.

CHAIRMAN HANSON: Let's see if that mic is on. It doesn't sound like it is.

KATHY HAAS: No, it doesn't.

CHAIRMAN HANSON: When you speak, if you would spell your name slowly, like I said, and tell us approximately where you live so that we get an idea where people come from. Thank you very much, Kathy.

KATHY HAAS: Okay. I'm Kathy. Spelled with a K. Haas. *H*, two *As*, one *S* as it Sam. I live west of Bemis -- or east of Bemis, I'm sorry. And the way

your map shows, how far can the wind towers be apart?

DARYL HART: Are you asking the distance between the two turbines?

KATHY HAAS: Yeah, between the two wind towers.

TYLER WILHELM: So the distance between the wind turbines will vary. To give an average distance to assume is 1400 feet. However, they could be spaced closer based off of the wind resource. Ultimately it comes down to the manufacturer's specs and ultimately getting a sign-off from the manufacturer that our site is suitable as proposed.

KATHY HAAS: If you look at the map here, it shows I'm going to have one in the backyard in the neighbor's land, and then one in the front yard. It's not a very big place. It's only like 20 acres. And then there is one on the other side of me. And the land is -- Can they be that close? Aren't they loud?

TYLER WILHELM: There is some noise associated with the wind turbines, however, at the sites proposed, we are in compliance with both local and state requirements. I'm anxious to know where your house is so I can get a better understanding of where these are in the general area, to get you more information as far as how far away they are, and to

get to follow up with you on the proposed noise levels that we have currently in place.

KATHY HAAS: Okay.

TYLER WILHELM: I'm happy to take your information now or we can talk afterwards.

KATHY HAAS: I can talk afterwards.

TYLER WILHELM: Okay. Sure.

KATHY HAAS: Thank you.

TYLER WILHELM: Thank you.

CHAIRMAN HANSON: Kathy, can we have your address so that we can look at the map and figure out exactly where you are in relation to those towers?

KATHY HAAS: 17717 472nd Avenue. 472nd Avenue.

CHAIRMAN HANSON: This is the one time my wife allows me to ask young ladies what's their address.

(LAUGHTER.)

CHAIRMAN HANSON: Thank you.

KATHY HAAS: Thank you.

JOANNE WEEG: I'm Joanne Weeg. W-E-E, *G* as in goat. We live in Bemis and I notice that in Goodwin they had to be within a mile away from Goodwin. Did I understand that correctly?

TYLER WILHELM: Yes, ma'am. I believe it's

within one mile, has to be set back at least one mile from the nearest residence from the municipality of Goodwin.

JOANNE WEEG: Okay. What is it for Bemis, then? There is houses, livable houses, in Bemis. There is 27 of us that live in Bemis.

TYLER WILHELM: Sure. I don't believe that there is a county setback requirement from the town of Bemis. I don't believe that was --

JOANNE WEEG: So you can get into my backyard?

TYLER WILHELM: No, ma'am, we can't site any infrastructure on those who don't have active land easement agreement. One of the -- I would be happy to provide information as far as how far away the turbines are from Bemis.

JOANNE WEEG: Well, I would like to know. I really would because -- I don't know. I like our scenery. I like when I can step outside and have no noise. (Interruption by reporter. Brief discussion off the record.)

THE REPORTER: I would like to know. I really would --

JOANNE WEEG: -- how far they are from Bemis, you know, or from our residence. But I would like to

be able to walk out my backdoor and not hear a buzzing or get a shadow every so many seconds. I just don't feel that that's really necessary to be that close to Bemis.

TYLER WILHELM: Again, happy to follow up with you and provide you the distances, noise and shadow flicker levels, so you have a better understanding of what's being proposed.

JOANNE WEEG: Oh, I have a good understanding of what's being proposed. I have people that live by these and really don't like them. Yeah, I'll give you my address and you can give me your information.

TYLER WILHELM: Sure.

JOANNE WEEG: 1124 176th Street. Actual address is Goodwin but we live in Bemis. Brad and Joanne Weeg. In a letter that we received it said that we would be something like a half a mile from the nearest one.

TYLER WILHELM: That's referring to the public notices that went out?

JOANNE WEEG: Yes.

TYLER WILHELM: I believe the requirement is within a half mile of the proposed turbine location -- or project area, I'm sorry. The project area.

JOANNE WEEG: Again, I would like to know the

information, if you could get that to me.

TYLER WILHELM: Absolutely.

JOANNE WEEG: Thank you.

CHAIRMAN HANSON: Thank you, Joanne.

JOANNE WEEG: You're welcome.

CHAIRMAN HANSON: Good evening.

GAIL BAEZ: Good evening. My name is Gail Baez. G-A-I-L. B-A-E-Z. And I live in Goodwin, although it's sort of a rural property. I guess the real question here, I think for a lot of people is noise level, and I know you said it's within legal requirements. But realistically, what does that mean? If somebody's within half a mile of a turbine, can you give us some kind of example, what would the noise level be like? Is it going to be like a freight train, or is it going to be like a 10-miles-per-hour wind? Some sort of example that we can understand.

JAY HALEY: At a distance of a half mile, you'll hear noise levels would be in the neighborhood of 42 to 44 decibels.

GAIL BAEZ: And what does that mean? Just in practical sense. Is that what a refrigerator would sound like? A car would sound like?

JAY HALEY: Two people having a conversation about three feet apart would be 55. So that's

60 decibels.

GAIL BAEZ: Two people three feet apart.

JAY HALEY: Just talking normally, that would be in the range of 50 to 60 decibels.

GAIL BAEZ: Okay. So what we would be hearing would be somewhat louder than you and I talking three feet apart?

JAY HALEY: No, no. It would be lower. It would be quieter.

CHAIRMAN HANSON: Do you have an example for her of 42 decibels --

GAIL BAEZ: Yeah.

CHAIRMAN HANSON: -- because you told her it was going to be approximately 42 and the example is 55. It would be helpful if she could have the 42.

JAY HALEY: Just going by one of these standard charts: 10 decibels would be like a pin dropping; 20 decibels would be like rustling leaves; 30 decibels would be a whisper in a quiet rural area; 40 decibels is like a typical library sound level; 50 decibels is a refrigerator; 60 decibels would be the sound of an air conditioner at approximately 100 feet or conversations in a restaurant or an office.

GAIL BAEZ: All right. And then just one other question. I think you say as far as Goodwin was

concerned, they had to be within a mile of -- I don't know if it was an individual houses, residences. My property is somewhat rural so it's not right in Goodwin. But so does that still, is that still true, or is it different because it's a rural property? It's an acreage. It's like 14 acres.

TYLER WILHELM: Sure. So the way that the county ordinance is written is it's one mile from the closest residence within the municipality of Goodwin. So within the municipality boundary. I'm not familiar with exactly where your property is located. If it is on the outskirts of that, I mean, assuming one mile from the closest house within the municipal boundary that may be closest to you to give you a general sense of how far away we have to maintain. But one of those things where I'm not exactly sure where your property is at.

GAIL BAEZ: Well, it's not right within the town area. It's out more towards the lake area and it's 14 acres. So does that mean it would have to be a mile from my house or no?

TYLER WILHELM: If it's not within the boundary of the municipality district, it is not required to be one mile.

GAIL BAEZ: Okay. One final question then.

TYLER WILHELM: Sure.

GAIL BAEZ: The map that I got in the mail, you know, I really couldn't tell the distance from my house, and I couldn't -- the servers were down or something today so I couldn't look on the maps online. Is there a way for people here to get an idea as to exactly where one of these turbines would be located distance from their houses, because I know it says within a half a mile but that's a lot of leeway.

TYLER WILHELM: So in our noise and shadow flicker reports that we submitted within our application we have receptors that are numbered, and there is not a landowner name tied to that receptor, but we would be happy to provide you the information of what, you know, what number is tied to your home and provide you with the information as to the closest turbine and the noise and shadow flicker level that would be associated with that location.

GAIL BAEZ: Would one of you be that contact person? Would you be that contact person?

TYLER WILHELM: It would be either myself or somebody else on the project.

GAIL BAEZ: Okay. Thank you.

CHAIRMAN HANSON: Excuse me. Figure 3-A on your project map, it shows Waverly, Kranzburg, Bemis.

I don't see Goodwin. I know where it is, but it doesn't show. Any particular reason? Did you just miss that?

TYLER WILHELM: It may be off on one of the figures that we submitted.

CHAIRMAN HANSON: It's on 7.

TYLER WILHELM: It's on 7 but not on 3? Oh.

CHAIRMAN HANSON: Excuse me. With a magnifying glass I can see it. I'm sorry.

COMMISSIONER FIEGEN: It doesn't have the name. It's not labeled. Is it?

COMMISSIONER NELSON: Look on Figure 2.

CHAIRMAN HANSON: We know where it is.

COMMISSIONER FIEGEN: Right. We know where it's at. It's just not labeled. So the public I don't know. I just want to make sure the public --

TYLER WILHELM: Sure.

COMMISSIONER NELSON: Look on Figure 2.

TYLER WILHELM: Figure 7, I'm looking at right now, does include Goodwin.

CHAIRMAN HANSON: Yep. The question was why it wasn't on that particular one. Thank you. Good evening.

GARRY EHLEBRACHT: Hello there. Garry Ehlebracht. G-A-R-R-Y. E-H-L-E-B-R-A-C-H-T.

17539 468th Avenue, Goodwin, South Dakota. I am in the middle of it.

One thing that I would like to express to everybody, non-participators in general, is Section 5.2 of the Lease and Easement Agreement as it was proposed to my neighbor, Laretta Kranz, the effect easement reads: Owners grant to operator, Crowned Ridge Wind Energy, LLC, a nonexclusive easement for audio, visual, view, light, flicker, noise, shadow, vibration, air turbulence, wake, electromagnetic, electrical and radio frequency interference, and any other effects attributed to the wind farm or actively located on the owner's property or on adjacent properties over and across the owner's property. That is part of the effect easement.

So the owners are getting paid for this. They are not allowed to talk about this. I think as non-participators, you need to know what we're not getting compensated for in the taking of our land. They cannot do it. But yet they're pushing their way around and they're doing it. I don't know how -- Tyler, I'm sure is a good man, but they're pushing their way around and they're taking what they want from people that don't want them. There is not -- Again, there is not very many of us. There is more

non-participators than there are participators. It seems like they're not listening to nobody but the participators, the one that has the land.

I have 18 acres. If any part of that shadow comes on my land, they're taking property from me, which I don't think is right. They know it's not right. They can put those wherever they want them, but yet they choose to put them next to people's homes that don't want them.

UNIDENTIFIED SPEAKER: That's right.

GARRY EHLEBRACHT: This has been going on since September 20 of last year when we had our meeting in Deuel County. We had four hours, I believe, of testimony from non-participators that presented evidence to the Board of Adjustors. I was assaulted at that meeting by a commissioner who is now the head of the commissioners of South Dakota. I know you know who he is. The State's Attorney was there. Everybody seen it. I have witnesses that seen it. And nothing has been done. The State's Attorney is supposed to get ahold of another State's Attorney to handle this case and it's never been done. So that just doesn't seem right to me.

The same commissioner was asked at a county commissioner meeting, "Are you getting a turbine?" He

said, "No." I came back two weeks later. There is his wind energy agreement. His signature is on it. When I asked him if that was his signature, he said, "I'm not going to answer that because it will incriminate me."

Here is the commissioner minutes that state what I said and that he said that he was not getting them. So he was lying. And if you talk to the people of Deuel County, a lot of his people that know him, he does it all the time.

UNIDENTIFIED SPEAKER: He does, yes.

GARRY EHLEBRACHT: He does it -- I mean, it's crazy, but his golf scores, he lies on his golf scores, and they know it. (Laughter) People watch him do it, and he's the head of the commissioners in South Dakota. That's what's not right. Thank you.

(APPLAUSE.)

CHAIRMAN HANSON: We're going to try not to do any applauding or cheering and things of that nature. I know that some of us can't help but chuckle once in a while. We can't help it, clapping or trading signs and things of that nature. When Garry was referring to the head of the commissioners in South Dakota, as the Chair of the South Dakota Public Utilities Commission, I wanted to make certain that

he's not referring to me. I don't have any sort of financial interest in this whatsoever. Thank you.

Next up. Who is next up?

KENNETH MAYER: Hi, I'm Kent Mayer. K-E-N-N-E-T-H. M-A, as in apple, Y-E-R. I guess my biggest problem with this is, I'm pretty interested in astronomy and stuff, and I really don't like all the red flashing lights in it. When you're driving down the Interstate, you can see them for miles. Actually, you can see them from over by Hayti. So even, I mean, guys 30, 40 miles away are kind of noticing these and it's an eyesore. It's not really something that I like to wake up and look at.

I'm a mechanical engineer myself so I kind of, you know, understand wind, and I agree with it in a small form. I think that a lot of us should be working on creating being self-sufficient rather than creating an eyesore. I guess that's about all I have. Thank you.

CHAIRMAN HANSON: Approximately where do you live, Kenneth?

KENNETH MAYER: I live three miles east of Goodwin and two miles south of 212.

CHAIRMAN HANSON: Thank you. And that's the first time of all these years in all of these, lots

and lots of wind farms that we've heard someone talk about astronomy. So there is a good purpose to these meetings.

DEAN MACK: Dean Mack. Live just east of Bemis right on that -- right along the blacktop. Address is 17594 468th Avenue. I got three different parcels of land. I got three letters in the mail. I'm not a hundred percent against ya; I'm not a hundred for ya. If Kranzburg and Goodwin, the towers need to stay a mile away from them towns, then they need to stay a mile away from Bemis. It doesn't matter if the town is ten people, a hundred people, or two people, a town is a town. That's why there is a sign along the highway when you go by.

Second of all, you guys keep saying about they got to be half a mile away. Well, technically a half a mile, correct me if I'm wrong, is 2,640 feet. four times your tower height, the height is under 2,000 feet so you can't honestly tell the people that they're half a mile away from their house. They're closer than that; right?

Their tower is not quite 500 feet tall, and you got to be four times the height, it wouldn't be quite 2,000 feet, and you're telling people that they're half a mile away. Technically, they're not

half a mile away because half a mile is 2,640 feet.

TYLER WILHELM: Sure. I understand your logic. I don't recall saying that turbines will be a half a mile away from homes. There is county ordinances in place that list the distances that is required for us to site these turbines from homes, which we often exceed. For instance, and you mentioned Bemis; correct?

DEAN MACK: Yep.

TYLER WILHELM: For a non-participant it's four times the turbine height.

DEAN MACK: So that wouldn't be quite 2,000 feet.

TYLER WILHELM: Correct. They would have been 45 times four.

DEAN MACK: Right. Right. So they're not a half mile. Because I heard people say half a mile away. They're not a half mile away. They're closer than that. Just so we got that clear.

TYLER WILHELM: Yes, sir.

DEAN MACK: Then my other than question is, if we're going to build them, and you dig that transmission line in, what records do you have of tile lines and stuff like that underground that you got to cross? Because I've got some I know that you're going

to have to go over it.

TYLER WILHELM: My first question, do you have an active wind easement in the project?

DEAN MACK: No, I did not sign. I did not sign.

TYLER WILHELM: So we would not be running anything across your property.

DEAN MACK: No, I got, where I ran tile, I went through the neighbor's land and got his signature. I paid the entire bill. Probably 15 years ago it was done. So the tile is on his land but it's my tile.

TYLER WILHELM: Sure. So the big part of the conversations that we have with landowners for participation is getting information such as where tile is located on the property and how we can shift infrastructure to the extent possible to minimize --

DEAN MACK: Right.

TYLER WILHELM: -- impact to tile, and where the tile is impacted, there is competition to help restore that. We either provide the compensation necessary to restore the tile or restore it ourselves.

DEAN MACK: How do you know where it's at, because the man is dead that did own the land and his kids own it now? He was not out there the day the

tile was put in. Me and two other guys were the only guys out there, and they no longer work in the tile business.

TYLER WILHELM: When we have conversations with landowners --

DEAN MACK: Right.

TYLER WILHELM: -- these discussions come up as far as where existing infrastructure is on the property and tile does come up. It doesn't come up in every single conversation --

DEAN MACK: Right.

TYLER WILHELM: -- but we talk directly to the owners of the land, and then oftentimes those who help farm the property as well. So if you have concerns about the tile, I'm happy to get tile maps from you, provide it to our E&C team, our execution team and get that matter taken into consideration.

DEAN MACK: Okay. That would be fine. And then if you ever put a gravel road over it then to get to one of your towers, say, 10, 15 years down the road that tile needs to be reput in or fixed or patched or whatever, and we got to tear into your road, that should not be my expense, that should be your expense because you put the road over that tile; correct?

TYLER WILHELM: Any impacts or, yeah, any

impacts to the existing land prior to us being there, if there is anything that happens, prior to construction.

DEAN MACK: There is two tile lines that I'm talking about. One that I put in roughly 15 years ago, and one that was dug in by hand in the 1930s so there is actually two of them.

TYLER WILHELM: Yeah, that's something that we are obligated to fix.

DEAN MACK: Okay. Just wanted to make that clear. Thank you.

CHAIRMAN HANSON: Thank you. Next up.

TIM LINDGREN: My name is Tim Lindgren. T-I-M. L-I-N-D-G-R-E-N. I live in northern Waverly Township. I'm right in the middle of Crowned Ridged I, but I'm here in support of our friends in Deuel County who are opposed to Crowned Ridged II. I like Deuel County, especially the Crystal Springs, Gary area, and the Hidewood area, and I think it was a big mistake when the DOT closed the rest area, the Hidewood rest area but that's another matter.

But we are finding out that wind turbines can be a liability during cold, extreme cold weather. During one of the times electricity was at its highest

demand, wind power was not available. Weather stations installed on wind turbines automatically shut down the wind tower when the temperatures drop too low. When we need electricity the most, wind turbines are drawing energy from the grid to keep the turbines lubricated and the computer systems running. This creates a negative energy production. The electric company must depend on other sources of electricity to make up for the negative production. And those sources are coal, gas, and market and one is there was nothing, not enough electricity on the market to buy.

Okay. Then I also have a relative in the Toronto area, and I seen him about a year ago and asked him what he thought of living right next to wind turbines and he says, I hate them. He says, They leak oil constantly. The developer did not make do on their promises to keep up the roads. And he says, How many large corporations really care about the little guy? Thank you.

KRISTI MOGEN: Hi, Kristi Mogen. K-R-I-S-T-I. Mogen, M-O-G-E-N. I'm from Twin Brooks, one mile south of there.

After attending public WES hearings over the last two years, it amazes me how many issues that will greatly impact health, safety, and welfare, quality of

life, and a danger to the whole community and the environment are still being glossed over. And I'm asking when will this Commission quit playing Russian Roulette with rural residents lives?

I live seven miles from Dakota Range I footprint. During the process I was treated like I shouldn't be there asking questions and trying to protect the quality of life for my family and my community.

Now, a year later, Crowned Ridge I hearing, an expert hired by wind, Jay Haley, and excepted as such by this Commission, confirmed that the noise from Dakota Range would affect people and property 25 miles away. This should be a concern to the Commission as they did not have all the information to fully -- to be fully informed for the permitting decision on Dakota Range I. Now that the Commission is aware, will the Commission require notice to all the effected properties?

During the docket 18-19 during the public hearing, this Commission was asked several times about burying the transmission lines associated with this project. Now a year later during the Crowned Ridge I hearing, NextEra wind engineer, Mark Thompson, stated, And with wind and ice, your weak link becomes that

transmission line. Just wonder how many impacts we will learn about a year or two down the road that should have been addressed before getting a permit.

I would also like to ask, will this Commission require Crowned Ridged I to remove the transmission lines to nowhere if the court system finds that the local and the state permits are illegal or invalid?

How many lawsuits are against this Applicant in South Dakota? There are two in Grant County, and the conditional use permit is for both Crowned Ridge I and Crowned Ridge II. Will there be more? Is it wise for this Commission to issue permits for Applicants when the outcome of those lawsuits is unknown?

This Commission has heard many times concerns about liens and mortgages being placed on easement holders. I have brought the documents to show a wholly owned subsidiary of NextEra, as is the Applicant, has caused both liens and mortgages. If this happens in this proposed project, will it affect the farmer's ability to get operating loans or sell his property?

These Applicant's -- The Applicant's affiliate or entity in 2012 sent a letter to many landowners stating they would not be renewing the

agreement because of several criteria, including wind resource and environmental. Yet here we are today. Why is that? Could it be because the Applicant has proposed, with this proposed project can fleece American tax payers to the tune of more than $32 million in production tax credits all while destroying the goodness of rural South Dakota.

During the Crowned Ridge I discovery, the intervenors asked for the capacity factor. We were told that it was confidential. The capacity factor is actually in the public domain. I provided these documents. They're a part of Minnesota PUC Docket 02/AA-19-293. Will the Commission question the methods to arrive at that capacity factor? Would that number be the same if the Applicant paid taxes on the capacity factor instead of the production? What is the true electricity produced after the turbine usage is taken from the grid, is removed from the factor? Will the public ever get to see that number? What number and method does the Applicant use to present all the estimated revenue projected to the schools, townships, and counties. In the Crowned Ridge I docket, we were given several different answers.

For this project I have included a Register of Deeds' documents from Deuel and Codington counties.

These include a board member with a conflict of interest. He is receiving turbine number Crowned Ridge 70. He has influenced the Board of Adjustment and voted on WES ordinances. Also included in the memorandums for wind leases and easements, showing the grantor will be paid for effects, noise and non-obstruction easements for land in the contract and adjacent properties. Non-participators have given the Applicant no permission to have effects, noise, or non-obstruction. What South Dakota Codified Laws gives the Commission the authority to force non-participators' land to be encumbered with industrial waste from the Applicant?

I was not able to find on the public records the so-called confidentiality agreements. Why is that? If the proposed project is so great for our communities, why has the proposed project that has been worked on since 2007 been hidden from the public until 2017? Do you have any questions?

THE REPORTER: Do you have a copy of your statements?

KRISTI MOGEN: Yes.

THE REPORTER: Thank you.

RICH RALL: Good evening.

CHAIRMAN HANSON: Good evening.

RICH RALL: First name is Rich. Last name is Rall, R-A-L-L. I live in rural Goodwin.

In regard to what they sound like. If you take a fire extinguisher, squeeze the trigger and release. That's what they sound like, the turbines, as the blades spin around.

I would like to know how you guys figure out the noise receptor from my house. I'm a non-participant. How did you guys figure it out at the location? I live in rural Goodwin. Did you actually physically come on my property, or is it done on a computer?

TYLER WILHELM: We do not physically enter any property that we don't have access rights to. So the GPS location of your receptor would have been done by an aerial application such as like GoogleEarth or something like that.

RICH RALL: They actually put it behind a wall of my house so you're going to have less noise behind the house. That's not right. This is not right. You can't tell me that I'm not going to have that much noise.

Your phone rings, and an unknown person calls you that you have won a substantial amount of money. Or you get a phone call that your grandson or daughter

is in a foreign country and needs your financial help. Or you receive a check in the mail from some unknown company with which you have never done business with. What are these? Scams. We have all been taught if it sounds too good to be true: It's a scam.

Along comes NextEra Energy. Reliable, low cost green energy. Money for roads, bridges, schools. Good paying jobs for locals. They never mentioned the amounts until tonight. Some of the numbers were mentioned but nothing was mentioned in the ads. It is the same speech given to each county; Codington, Grant, Deuel. This all again, too good to be true: It's a scam.

Reliable energy. Wind turbines generate electricity 30 percent of the time. The other 70 percent they are actually taking electricity from the grid to operate. So now you need to build a peaking plant using natural gas, which is a fossil fuel, to produce electricity.

They are not green. Rare earth metals which are mined in China to make the magnets. China does not have an EPA so they make more air pollution to process it. Fly ash is a coal byproduct and it's used in the 2,500 tons of concrete for each tower. Coal is also used for the production of 900 tons of steel, and

oil is used to operate the turbine. Diesel fuel is used in transport site production and erection. All of these are fossil fuels.

Have you guys ever been in the rest area, need to use the bathroom real bad, and you can't get in because you got the stupid turbines in there? It takes three vehicles to move one turbine blade. They take up the whole stinking rest area for one turbine blade, for all three turbine blades. And you got to use the bathroom and you can't even go in there because they got things blocked up. I do a lot of traveling. I've seen way too much of that. They're supposed to be on their side of the road and they're going down, they actually take up more than their side of the road. And by law, I don't have to move over. They're covering the center line. They are required to move over.

Money for roads. After they are destroyed by the excessive truck traffic and weight.

Money for schools, which is based on the number of students. People will move away and the enrollment will decline.

The good paying jobs. These are temporary because they will still use their own crews. Besides, it's not their money; it's all federal government

subsidy. In other words, it's ours, the tax payers' money. Again, it's all too good to be true: A scam.

The life of the project may be 20 years, however the payback is 30. What banker would loan you the money on that? The turbine transmission life is seven to ten years. What happens then? The cost to repair or replace a transmission about $1 million. The burden of this will be indirectly passed onto the consumer.

Canada, Australia, and every other country, including Germany, whose government falsified data, their electric rates have skyrocketed and so will ours. NextEra is guaranteed a 23-cent kilowatt hour in addition to what's on top of our current rate.

NextEra claims their decommissioning bond will pay for the decommissioning. Is there going to be a neutral party to watch this fund so it actually doesn't go into somebody else's pocket? Once again, that's taxpayer money.

In reality, the transmission and the blades are the Achilles' heels of each turbine and require frequent maintenance. The fiberglass blades cannot be recycled like NextEra claims. In Casper, Wyoming, the cost of burying 1000 blades in the landfill was estimated at $675,485 per the Cowboy State Daily.com. Not very

green. Too good to be true: A scam.

How can you trust NextEra? They have a blank page in the participant's contract for anything to be added later on and it's all legal because it's a signed contract. They grease the palms of some of the local and zoning commissioners in all three counties; Deuel, Grant and Codington. Yet those people have refused to recuse themselves even though they have a conflict of interest. How can they be unbiased? Even some of the PUC members have a conflict of interest.

CHAIRMAN HANSON: Next up.

GREG RICHTER: Ready? Greg Richter. R-I-C-H-T-E-R. Address is 16525 462nd Avenue, Watertown. Question on non-participant property values. Do you folks know if there is any known issues of value decreasing because of a turbine in close proximity?

DARYL HART: We have several studies, as well as nationwide studies show there is no correlation between the wind farm or wind generation facility and the degradation of a real estate property price.

GREG RICHTER: I spoke with one of your NextEra land contract gentleman. I was given his name by Luke Muller, because Luke wouldn't give me a call back. Talked to him, told him my situation.

Interesting, he says, you might have to do what you need to do on that. I talked to a gentleman by Brandon, from the PUC. He was in the paper, told him my issue, took my name down and thought it was quite interesting also and was very good information.

We are selling our property and we had a signed Purchase Agreement for an agreed-upon price. Basically, the wind farm is not on our property, small acreage, under three acres so it's very small. Obviously, it's not part of the wind farm so we thought that out of the goodness of heart we better disclose that to the potential purchase buyers. We put it on the disclosure form after the fact and they pulled out of the purchase.

Our realtor now is stating that we might have to drastically reduce the price to sell the property, partly because of the wind farm. And I spoke to a prominent lawyer in town just informally. He thought I may have a good case, and he said I could possibly seek litigation regarding the decrease to the value of the property. Just case in point.

I have that purchase agreement. I have a copy of the text from the party stating that that is exactly why they pulled out of the purchase of the property and the disclosure forms, so. Specific case

of property values being effected by the tune of tens of thousands of dollars of property loss value from the sale of the property.

CHAIRMAN HANSON: Could you describe your property to us? Approximate distance.

GREG RICHTER: It is about three-quarters a mile south-southeast of Waverly. And the wind turbine is on the Comes land. What is the setback on that, did you say, for non-participants? This gentleman's statement was the setback.

TYLER WILHELM: For Codington County?

GREG RICHTER: Yes.

TYLER WILHELM: So for Codington County the setback is 1,500 for non-participants.

GREG RICHTER: Yeah. It's probably right there. It's damn close.

TYLER WILHELM: On top of that, I would note that we also have to maintain a 50 dBA noise threshold to the property line --

GREG RICHTER: Yep.

TYLER WILHELM: -- of the non-participant where there is an existing receptor, which would put us potentially over 1,500 feet.

GREG RICHTER: Yeah. I would be curious to know those figures, the decibel on that.

TYLER WILHELM: Sure. Yes.

CHAIRMAN HANSON: Could you describe your property to us. It's an acreage, I assume?

GREG RICHTER: It's an acreage. Fairly newer house built in '01. New 56 by 60 pole shed that was fairly within, probably 12 years old, so. Very nice place. Any other questions?

COMMISSIONER NELSON: Can you give me your address one more time?

GREG RICHTER: Yeah. 16525 462nd Avenue and it's Watertown.

DARYL HART: And, sir, you have our contact information. We can maybe discuss, we can talk to you after the meeting or after the time of the back and forth.

GREG RICHTER: Okay, yeah. Very good. Thank you. Are you done, Commissioner Nelson?

COMMISSIONER NELSON: Yes.

CHAIRMAN HANSON: Thank you.

COMMISSIONER NELSON: Yes, thank you.

CHAIRMAN HANSON: Next up? You can save a little time if you'd like to scoot up to the chairs here. Good evening.

GEORGE HOLBORN: George Holborn, Sioux Falls, South Dakota. Spelled H-O-L-B-O-R-N. To the best of

my knowledge, the first complaints registered by Google industrial wind turbines is nearly four decades old and a result from single 2.0 megawatt turbine there in Boone, North Carolina. And many of these complaints were made by people who had no knowledge that turbine existed.

On March 2018 I presented what we found in Codington County Ordinance 65 Industrial District. Noise. All noise shall be muffled so as not to be objectionable due to intermittence, beam frequency or shrillness. We suggested this ordinance was in conflict with industrial wind turbines at the time. First District Government answered we have different standards for different settings. At that point, we were not allowed follow-up.

So my question is, why is noise less or more objectionable at an industrial site in Codington County than an industrial wind turbine site in Codington County? Are those non-participants living among the turbines of less importance than other county citizens? Such inconsistencies are imposed upon those who without choice by every layer of government dealing with industrial wind turbines.

Secondly, this past spring we attended an evidentiary hearing in Fort Pierre. We and others

wrote follow-up letters to the PUC. Commissioner Hanson responded in kind to Brad Johnson and me with very similar verbiage. He went on, by law we must take several factors into account when considering whether or not to grant a wind siting permit. The primary duty, the primary duty of the Commission is to ensure the location, the construction and operation to the facilities will provide minimal adverse effects to the health, safety, and welfare of the environment and the citizens. Again, our decisions, he goes on, must be based upon evidence that is presented to the Commission by parties of the docket.

At Prevailing Wind Park, LLC, the PUC granted the non-participants 40 dBA. The Applicant's expert was held in high regard. The Applicant employee seemed to be held in higher regard than even the sound expert hired by the PUC. At the Deuel Harvest evidentiary hearing, independent expert testimony was ignored when the PUC determined everyone, those participating with the wind developer and those found to live in the Deuel County sacrifice zone could live with a 45 dBA. Please remember every 10 decibels increase in noise loudness doubles after receptor. That number would determine the threshold limit for

the non-participants.

Mr. Rand continues: If the PUC wishes to hold the health, safety, and welfare in preeminence above the profits of the wind developer, the threshold for non-participants should begin at 35 dBA. Now, these numbers may seem fastuous to a politician or an absentee participant, but, in fact, it can be a life-changing eventuality for those forced to live among the turbines.

So you aware per Commissioner Hanson's letter of what will produce minimal adverse effects to the health, safety, and welfare of the environment and the citizens. It appears to me that you are obfuscating your primary duty. *Your primary duty*, your words, not mine.

Please consider the words of D.M. Deutschlander. "Good behavior best serves to keep order and preserve society; bad behavior undermines order and threatens society." Governments should be concerned with behavior that deprives another of life or property without justice. Thanks.

CHAIRMAN HANSON: Thank you, George. Further presentations or questions?

GAIL BAEZ: I spoke but I have one more question. It's on a different topic, if that's okay.

CHAIRMAN HANSON: All right. Since no one else is.

GAIL BAEZ: I'll just be real quick.

CHAIRMAN HANSON: You have a friend I assume who has just given you their five minutes.

GAIL BAEZ: My property is rural. Gail Baez. B-A-E-Z. There is what we were told was a bird sanctuary, and I don't know if it's officially a bird sanctuary but it's near the Round Lake/School Lake area. And I know it's a very popular hunting site -- geese, ducks, you know, all sorts of birds, gorgeous. I'm just wondering if anybody has taken that into consideration, because just from what I have read, there are a lot of -- there is a lot of impact on birds. And I know there is a study out there that says that cars kill more than wind turbines and I'm somewhat doubtful of that.

SARAH SAPPINGTON: You said Round Lake?

GAIL BAEZ: It's Round Lake, School Lake, that whole area.

SARAH SAPPINGTON: That area is outside of the project area but we can double check. All of environmental impacts are listed in the application.

GAIL BAEZ: Okay. That -- I'm sorry. Go ahead.

SARAH SAPPINGTON: Yeah, and so all the environmental impacts are listed in the application, including any issues with birds or any other wildlife, that we can --

GAIL BAEZ: Because even if it were out of the area, three feet, five feet or something, obviously that could still be a problem.

CHAIRMAN HANSON: Good evening.

ANITA RAML: Hello. My name is Anita Raml. A-N-I-T-A. R-A-M-L. And my husband and I live at 46562 170th Street, Goodwin. And we are proponents. We are getting wind towers on our property. And everybody has their opinion, you know, good or bad. We have found that working with NextEra, we have had no problems. We have had so many different people coming on to our land taking different surveys, like, artifacts from Indians and all that, and we've had people go through our creeks and stuff to make sure there aren't any little frogs or something like that that are endangered.

And if you look at the people that are saying, the flicker. Well, we got all these TV towers and communication towers that have red lights. And I, myself, when I see a wind tower going down the Interstate, I think, wow, you know, we got wind energy

and we don't have a big smokestack, because I have been going through Montana, going out to the West Coast, and you can see that smoke just rolling miles away. So I believe wind power is in the right direction.

And I also read an article in the Tristate Neighbor magazine that you had put an article in, Mr. Hanson, and it says, Why are you letting all these wind towers in? And you said, We need evidence. That is what he says. If all these applications come in and they are doing just what the applications ask of them, and there is no evidence against them, how can we not let them have their application? And I've listened to a lot of these complaints and it comes down to, okay, this commissioner or this county agency. Well, look at who you're voting for. Maybe if you're not, don't like what they're doing, replace them. Get a different commissioner or whatever it takes.

I live one-half mile from a dairy farm, and I can hear -- I sit outside. I can hear those fans running all the time. I mean, those are loud. My husband went to a sale down by Lake Benton. He was right under a wind tower and he could not hear it. So and now I've got another application for another

confined animal a mile away. And the smell? Nobody worries about that. And they worried about trespassing.

Well, you've got all these planes and everything else that are going over. Are they trespassing? I've had helicopters going right over my and they even shake the windows in my house. It's just what they have to do. We have to live with some thing and, you know, I can't see why a flicker or a shadow would be trespassing.

So that's my opinion and I'm hoping that the Commissioners will look at all the evidence and give the wind tower, NextEra, the application for approval. Thank you.

CHAIRMAN HANSON: Next up.

WAYNE BORGHEIINK: My name is Wayne Borgheiinck. B-O-R-G-H-E-I-I-N-C-K. This spring, first week of April, south of Storm Lake, Iowa, wind turbines fields were two miles away. I stopped at 3:00 in the morning and at 3:00 in the morning, do you know how loud they are? At 3:00 in the morning, more than two miles away, I could feel the wind turbines every time they turned. I could hear them distinctly.

Later on, Lake Benton, Minnesota, Hole in the Mountain Park down there. Last month, at 3:00 in the

morning, when it's still damp out, them wind turbines are distinctly loud and I can feel it a mile and a half away.

This spring I took a friend to the VA. On the way home I took him through Toronto-Estelline. He's a Vietnam veteran and a Desert Storm veteran. Took 10 minutes standing between those turbines standing on the road and he was nauseated so we had to leave. Took him down the road until he felt better, got out again, and took less than five minutes and he nauseated from the turbines nearby.

I find the majority of people oppose wind turbines in this area, but many of them are not here because they have lost faith and believe this is a dog and pony show. They feel the decision is already made ahead of time. They lost faith in the government.

U.S. Desert Storm veterans are told for a year that our chronic pain and fatigue was our imagination. One VA doctor told me personally, "Do not think of it and it won't hurt." Veterans' organizations, along with independent research because government research did not do the job, and finally convinced Congress or proved to Congress that the percentage of Desert Storm veterans with these conditions was grossly higher than the rest of the

percentage of society.

Now, I hear thousands -- I read and I hear thousands of people that live near wind turbines are having health issues to include wind turbine syndrome, vertigo and balance issues, sleep disturbance, headaches, tinnitus, nervous and sporadic heartbeat, nauseous, difficulty with concentration, memory loss, and anger vibroacoustic disease, and also according to World Health Organization Medical Code T75.2, it causes direct tissue and organ damage. And you wonder why these people are concerned about the noise and the flicker near them. Okay. That's a good reason to be concerned.

Volumes of documents from peer reviewed, independent studies and testimony from the part of people who live around these things have been submitted to county and state officials to support this health problem. They were pushed aside. Some of them are referred to as antidotal. Man, that's just like telling this veteran the thing's in your head. Don't think about it and you won't feel it. Man, I'll tell you what, it takes me back a ways. Okay? No, they told you the wind turbine research and the reports they come up with by government agencies, where the people that do these studies are told by

elected officials who have received thousands of dollars of campaign from NextEra.

Now, that information is available on Open Secrets dot org. along with other public domains. I assure you, when compared to the rest of society, the number of people experiencing these health issues while being exposed to wind turbines will be gross to higher than the rest of society. While the exact cause is not yet totally understood, it is obvious that these health problems are from exposure to wind turbines which by all of these county ordinances are way too close to residents.

In fact, Mason County, Iowa, just a few weeks ago their Health Department declared wind turbines a health hazard in line with the World Health Organization and made a mandatory mile-and-a-half setback. Now, these are real numbers. This is reality. Now, reality is facts. You want facts? Here is your facts. When Congress can act on these type of facts to care for us veterans, it's pretty obvious our local and state governments should fall in line with that to protect our citizens. And that's how you can restore faith in the system. Start listening to the people, the real people with the real facts, the real feelings. Thank you.

COMMISSIONER NELSON: Wayne, where do you live?

WAYNE BORGHEIINK: I live in Waverly.

COMMISSIONER NELSON: Thank you.

WAYNE BORGHEIINK: Sorry for not telling you. I'm sorry for leaving that out.

CHAIRMAN HANSON: We're going to have a short recess.

(RECESS TAKEN AT 7:01 P.M. TO 7:14 P.M..)

CHAIRMAN HANSON: A couple of housekeeping items. If you have turned in written items to our court reporter, Nancy, you need to sign those and place your address on them if you would like to have them posted on the PUC site. Additionally -- Let's see, what is the additionally?

COMMISSIONER FIEGEN: If they don't want them posted, she would like them.

CHAIRMAN HANSON: Nancy has informed us, if you have written comments of what you discussed, she would like to have them so that she can refer to them to make sure she gets everything correct.

Okay. So we're back on. I thought you were going to take the podium. You have about 40 pages there so I --

(LAUGHTER.)

LINDA LINDGREN: I could.

CHAIRMAN HANSON: It's going to be a little long. Are you going to challenge us?

LINDA LINDGREN: Sure.

CHAIRMAN HANSON: Thanks for coming.

LINDA LINDGREN: My name is Linda Lindgren. 16050 464th Avenue, South Shore.

The Negative Health Effects of Wind Turbines: Wind Turbine Syndrome. The negative effects the wind turbines can cause great harm to people who have had no previous problems. Audible noise, infrasound, shadow flicker are some of the components of wind turbine syndrome. Disruption to the view shed is another factor affecting the health of people living within a commercial wind electricity plant.

Lack of sleep from the noise can cause a number of diseases by decreasing our resistance. High blood pressure, anxiety, depression, cancer, and numerous other diseases can develop by lack of sleep and the noise itself. Inaudible noise or infrasound causes the body to build scar tissue. Infrasound affects the heart by thickening the walls by up to 20 percent. The defense the body builds against infrasound causes all sorts of problems; arthritis, cancer, heart problems, anxiety and the list goes on.

Shadow flicker can cause epilepsy, dizziness, vertigo, migraines, etc. The view shed disruption causes depression as it disrupts the peace and tranquility that many people must have to stay healthy. How many of us can say that they or their family members have no health problems that would be exacerbated by infrasound, shadow flicker, and audible noise? Anyone who has cancer or is a cancer survivor has heart problems, epilepsy, autism, PTSD, depression, motion sickness, COPD, sinus pressure problems, and the list goes on. They will have exponentially worse symptoms living in a commercial wind electric generating complex.

And many of the people that would be suffering will be veterans. I think we should give our veterans the rights they fought so hard to defend.

Disruption of the view shed is another factor affecting our health. To many people the peace and serenity of living in the country is necessary for our mental health and well-being. People with depression and PTSD, for example, will suffer if their beautiful area they live in is ruined by these giants. Is the idea of a few dollars more important than the health safety, well-being of our citizens? It is your job to protect us. Please deny this permit, or at the very

least have a two-mile setback with waiver.

Also I would like to reiterate the Prevailing Wind was given a 40-decibel noise level by the PUC. The same PUC that granted 45 decibels to Crowned Ridge I. Please, give the people in the Crowned Ridge II project the same courtesy, health and safety, as you did in Prevailing Wind.

I'm wondering, was it too much trouble to tell the non-participator when they sent out those letters the distances and sound and flicker studies of their home? They would have time to really find out what the decibel level means.

And one more thing here. The Applicant has omitted receptors and let's call the receptors what it is -- a home. The Commission has the duty and the public has the right to know.

CHAIRMAN HANSON: Mr. Nelson has a question for you.

COMMISSIONER NELSON: Yes. Linda, be very specific what receptors are not in their report. That we do need to know.

LINDA LINDGREN: My co-conspirator, Kristi, was not able to finish so she gave this to me so I'll ask her.

KRISTI MOGEN: I can provide that.

COMMISSIONER NELSON: Okay.

CHAIRMAN HANSON: Good evening, sir.

DARO CRANDALL: Good evening. Daro Crandall. D-A-R-O. Last the name is C-R-A-N-D-A-L-L. Fifth generation Dakotan. I'm here in opposition just because more so than anything about the future of this state. Would you guys be building in South Dakota without the tax subsidy? You don't have to answer. I think I know the answer.

I asked for reclamation. You said NSP will replace down to four feet but the foundation goes down to eight feet. What happens to that last four feet?

DARYL HART: Would you like me to answer?

SPEAKER FROM THE AUDIENCE: You can.

DARYL HART: The last four feet remain and that is due to the extensive environmental impact that's required to remove the rest of the foundation.

DARO CRANDALL: So that's not total reclamation?

DARYL HART: It's reclamation down to four feet.

DARO CRANDALL: You claim they're environmentally safe in operation yet many existing turbines leak oil.

MARK THOMPSON: Yes. You will have leaks,

which are minimal on turbines. There are SPTC plan that was put in place to take care of any spill that would eventually hit the ground.

DARO CRANDALL: I know down in Toronto in the Brookings area, you can physically see where the oil has run down the turbines. There is also the effect the turbines have on wildlife, particularly birds. I think it was addressed earlier by somebody. How do you guarantee the 30 hours of flicker per year?

JAY HALEY: The turbines can be shut off automatically by the operator, based on the calendar and the knowledge of exactly what time of the day and what day of the year that flicker will occur. They can program that into the turbine and tell the turbine to shut off in five minutes or ten or whatever it takes.

DARO CRANDALL: How about the decibel level? How do you fix that? It's more than 42 decibels.

JAY HALEY: Noise is controlled by distance from residents.

DARO CRANDALL: Okay. So basically, when you guys are done with this, you guys are from Florida, once you're done and sold it off to NSP, you're washing your hands of the whole thing? Is that pretty much it?

DARYL HART: The responsibility of the project for the Crowned Ridge?

DARO CRANDALL: Once you're done building and sell it to NSP, then you're going to wash your hands of the whole thing?

DARYL HART: I'm sorry, wash our hands, but --

DARO CRANDALL: Well, it's sold to NSP, then you guys, you care less of what happens in reclamation and things like that.

CHAIRMAN HANSON: Please don't talk over each other.

DARO CRANDALL: Because that's what I'm trying to find out. Your commitment goes to the building itself. Thank you.

CHAIRMAN HANSON: Thank you. I just wanted to make sure you understood. Don't talk over each other. She can't type two conversations at the same time. Thank you.

DARO CRANDALL: Okay.

DARYL HART: The responsibility for the project for reclamation/decommissioning move to the future owner of the project, NSP.

DARO CRANDALL: All right. One other thing is, tourism is one of the major economic factors

in South Dakota. I realize farming is too. I grew up on a cattle ranch. Due to unforeseen things with drought we no longer run that business, but I understand landowners, you know, looking for ways to make up extra income. So I don't fault you for that, but just think of the future. I got a quote I'd like to share with you all. It's by Theodore Roosevelt.

"No one but he who has partaken thereof can understand the keen delight of hunting in lonely lands. For him is the joy of the horse well ridden and the rifle well held; for him the long days of toil and hardship, resolutely endured, and crowned at the end with triumph. In after years there shall come forever to his mind the memory of endless prairies shimmering in the bright sun; of vast snow-clad wastes lying desolate under gray skies; of the melancholy marshes; of the rush of mighty rivers; of the breath of the evergreen forest in summer."

I don't hear anything about wind generators there. And I guess what I would like to leave you all with is the words of Katharine Lee Bates. Anybody familiar with her? "O beautiful for spacious skies for amber waves of grain." I hear nothing in there about wind turbines. I mean, I live in South Dakota because I'm a prairie son, and I'm a proud prairie

son, and I'd like to preserve the prairie as much as we can.

COMMISSIONER NELSON: Daro, can you give us your residence address?

DARO CRANDALL: Yeah, just -- 2101 Cedar Drive Northeast, Watertown.

JOANNE WEEG: Joanne Weeg. I know I was up once before, but I do have a concern after listening. A neighbor of mine I just found out is a participant in the wind turbines. Not saying that's bad. Not saying it's good. But I do know that she has just purchased quite bit of land right in Bemis, which goes right up to my property, and pretty sure she's going to take down all the tree groves that's there for these wind turbines. So what are we going to do to preserve our trees? Bemis is not that big but it is pretty. And now half the tree rows in Bemis are going to be gone. I'm addressing you guys. So what can we do to preserve that? What's the game plan for that?

TYLER WILHELM: Per our conversation earlier, I would like to understand exactly where your place, is and we will follow up on that. I will give and provide information which is public or online where the turbines are. Help understanding where this treeline is and if it will even be impacted.

Oftentimes there is no reason for us to remove trees. Sometimes there is.

JOANNE WEEG: I know she bought up -- Go ahead. Sorry.

TYLER WILHELM: I was just going to say it's all about location and a case-by-case situation. All we can do is help you understand what's proposed in the general area, in proximity to your property.

JOANNE WEEG: Everything that she bought is within this tree grove. So even if she was just going to use it for the farm land, she's still going to destroy it, but I know that -- I just now found out that she is a participant. You got my address; right?

TYLER WILHELM: I have your contact information, yes, ma'am.

AMBER CHRISTENSON: Yep. Thank you.

CHAIRMAN HANSON: Thank you.

AMBER CHRISTENSON: Hello. Amber Christenson, Strandburg. I wasn't going to speak but I do have a couple questions from your presentation. So the distance, when you build the foundation, the foundation looks like it's maybe what? Typically about 60 feet; is that right?

MARK THOMPSON: About 50 feet in diameter.

AMBER CHRISTENSON: Fifty feet. Well, looks

like there was a lot of earth moved around there. Typically, how much soil, how much room is actually disturbed during the construction of one turbine?

MARK THOMPSON: So what you saw on that photograph was basically earth being excavated to actually place the foundation and additional earth being excavated to access that location. Once you're done, once the entire foundation is in place, all of that earth is put back in place. Now, the question might be asked, but you just put a 50-foot slab of concrete. But actually, the design of the foundation does incorporate putting back most, if not all, of that soil and it's used for balancing. It balances the nacelle at the top so that you don't have problems. The weight of that soil is very important to come back on top of the concrete.

AMBER CHRISTENSON: And compacted.

MARK THOMPSON: And compacted.

AMBER CHRISTENSON: And that compaction is what keeps it from -- timber.

MARK THOMPSON: The question was asked whether or not eight feet is enough depth for a foundation that size, and the answer to that is, yes, it is, and it's because of the amount of soil that goes back on top of the concrete.

AMBER CHRISTENSON: So, typically, in a field, like, how much of a field is disturbed? Like, I know you said that that dirt is put back, but I mean, that was like maybe a quarter. I don't know.

MARK THOMPSON: It's less than a quarter of an acre that is disturbed.

AMBER CHRISTENSON: Oh, really?

MARK THOMPSON: Yes. You mean for the actual foundation itself?

AMBER CHRISTENSON: Oh, no, just when you're building it. I mean, it just looks like the whole field was kind of -- That's just the only picture I've seen on construction.

MARK THOMPSON: So the temporary disturbance for an actual wind turbine, when you talk about temporary disturbance, you're talking about access road, the crane pad. It's about four to four-and-a-half feet.

AMBER CHRISTENSON: All right. Thank you. And then another question for you, Mr. Thompson. After the foundation is poured, or built, whatever, after the foundation is completed, approximately how long does that have to cure, or how long before you actually assemble the actual tower on top of a foundation?

MARK THOMPSON: Typically, the time that you wait has to do with the cure of the concrete. And you typically go seven days, you test the concrete to make sure that it's hard enough. If you don't have that hardness that you're looking for in terms of time, you go another seven, eight days. So you typically wait about two weeks before you start putting all of the infrastructure on top of it.

AMBER CHRISTENSON: Really, only two weeks and then it's solid? Okay.

MARK THOMPSON: (Nods affirmatively.)

AMBER CHRISTENSON: Then, this one is for either Daryl or Tyler. So you have all the FAA approval, I believe, for Crowned Ridge II; is that correct?

TYLER WILHELM: No. We actually have, I believe -- I believe it's four turbines that are remaining to meet FAA approvals.

AMBER CHRISTENSON: Okay. Okay. So my time counts like when they're answering my questions as well? Okay. Well, then I'm going to scoot right along and say, Darren, you negotiated the conditions, I believe, for Crowned Ridge II and you set the conditions to be 250 feet that they could move a turbine. Were you notified that the FAA only approved

a one-second movement? Did they tell you that? Which is what in our area would be 101 feet?

CHAIRMAN HANSON: Darren is not the only person who negotiates. We have attorneys and a number of other persons.

AMBER CHRISTENSON: All right. That was my impression from the hearing. My mistake.

CHAIRMAN HANSON: He's not --

AMBER CHRISTENSON: Okay. So you weren't notified -- I don't know who to ask then.

CHAIRMAN HANSON: Well, you can ask the Applicant.

SPEAKER FROM THE AUDIENCE: So did you notify them that you could only move turbines one second?

TYLER WILHELM: That's a requirement from the FAA. So if you need a determination, you can only move the turbine up to one second.

AMBER CHRISTENSON: Right.

TYLER WILHELM: Correct. What was it, did I notify --

AMBER CHRISTENSON: I just didn't know if they were aware of that, because they said 250 feet and one second is only 101 feet.

TYLER WILHELM: Well, so the Commission through other wind dockets and what we've seen what

the feet is, there is a possibility up to 250 feet. We ship the turbines, by all means, we are letting the PUC know that we have shipped to a turbine location regardless of the distance.

AMBER CHRISTENSON: Okay. I don't think we're connecting here, but that's okay.

TYLER WILHELM: I'm sorry. I didn't understand the question. Please repeat it.

AMBER CHRISTENSON: The other thing is Crowned Ridge I has no money. Does Crowned Ridged II have a bank account with any money, or are we going to do liens and mortgages?

DARYL HART: There is no money assigned to Crowned Ridge II. There is no bank account.

AMBER CHRISTENSON: All right. Thank you.

CHAIRMAN HANSON: Who is next? Next up? Lots of good questions tonight.

UNIDENTIFIED SPEAKER: Yes, sir.

CHAIRMAN HANSON: Okay.

WAYNE BORGHEIINK: I spoke earlier. Can I just ask one question?

CHAIRMAN HANSON: Well, I broke the precedent but I'll allow it. So we'll give everybody two shots.

WAYNE BORGHEIINK: Okay. Name is Wayne Borgheiink. Do you have that? I have a friend east

of Milbank who's in the middle of the construction project right now. He talked to me the other day, and he says, they're coming in with semi loads of explosives because east of Milbank they're using explosives to penetrate the bedrock so they can make 40 feet to get the towers in. That brings an issue. Up in this area we have shallow aquifers. Now, you start igniting, you start setting off explosives, and blow the circuits all around our area here, that is going to be real interesting. The question would be, is how is that affecting our aquifers and doesn't anybody even know how that's going to affect the aquifers, or are they just assuming it's not going to affect the aquifers? I don't know, you might not be able to answer that question, because, but --

CHAIRMAN HANSON: So the question is, are there semi loads of dynamite? Are you going to a 40-foot depth and what's the effect? And is there anyone watching out for the aquifers?

MARK THOMPSON: I can answer the question about the depth of the foundation. Crowned Ridge II has no foundation below eight feet. Okay.

WAYNE BORGHEIINK: Well, my question --

CHAIRMAN HANSON: Just let him answer.

WAYNE BORGHEIINK: I was just told the

40 feet is the transmission line, though. And like I said, I know -- I'm very familiar with east of Milbank there is a lot of granite bedrock there, and they are using, and they are, they are using explosives, because yesterday, one explosive vibrated. I don't know how far from his house it was. He was sitting in front of the house. His lawn chair on his deck bounced off of the deck from the explosion. I'd say that's kind of an interruption of people's lives and that does not really fall in line with the statement, with the mission that they're not supposed to interrupt people's lives out here while they're doing this, so.

MARK THOMPSON: I'm also familiar with the foundation designed for the line, and those are not at a depth of 40 feet. Based on what we know and the design that we have put forward, we don't have to use explosives to get to the depth that we're looking for on this project.

WAYNE BORGHEIINK: I don't know about this project, but I know that project they are using explosives.

AL ROBISH: Al Robish from Strandburg. I'm going to talk a little bit more about the foundation. You say you only go down eight feet?

MARK THOMPSON: Yes, sir.

AL ROBISH: No rebar or anything that spreads out to anchor that? Only 50 foot diameter is going to hold that thing from tipping?

MARK THOMPSON: Yes.

AL ROBISH: I've seen pictures of them where they tip over and the concrete is still attached to it. What happened to that?

MARK THOMPSON: The design behind the foundation is almost -- It's not anchored in the ground as you mentioned.

AL ROBISH: Did they used to do that?

MARK THOMPSON: There are foundations that are anchored. They're known as rock anchor foundations.

AL ROBISH: Okay.

MARK THOMPSON: As a matter of fact, rock anchor foundation might be shallow of what we go with ours. These are not rock anchor foundation. These are actual foundations. They're better known as spread foundation.

AL ROBISH: Spread foundation?

MARK THOMPSON: Yes.

AL ROBISH: Okay. Thank you.

CHAIRMAN HANSON: Anybody else? Yes. Good

evening.

AMY RALL: Good evening. My name is Amy Rall. I'm from Goodwin, rural Goodwin.

CHAIRMAN HANSON: Spell your last name.

AMY RALL: R-A-L-L.

CHAIRMAN HANSON: Thank you.

AMY RALL: We moved from White to get away from these towers, and now we're dealing with them again. I hate the thought of having to move again. We have been a retirement home for horses from a therapeutic riding facility for about 30 years. One horse, Rio, was an exception. He came from a friend of mine who had cancer, couldn't take care of anymore. We had an old horse, Mister, 38 years old, started going downhill, and we knew we were going to put him down. Normally what we would do is we would get another horse before having to put the one down, because horses need a companion. Rio would go ballistic without a friend. But because of the wind towers, we decided to find a different home for Rio. So now he's elsewhere free from turbines here.

You may ask, why didn't you just get another horse? We don't want to put torture, torture our animals. We don't want the shadow flicker, vibrations, air turbulence, low frequency noise,

stress. Horse's reaction would be to, they just like they want to run away. Wind-up getting hurt trying to go through fences. There was a study conducted by then Ph.D. candidate Mariana Alves-Pereina, after horses were born and raised, developed asymmetric flexural limb disorders shortly after wind turbines became operational. This was back in November of '06. Happened in Portugal. There were no other changes in the area.

Mariana wrote, "Tissue analysis of the defected tendons were performed and revealed the classical features of low frequency noise induced biological responses: thickening of blood vessel walls due to proliferation of collagen in the absence of an inflammatory process."

The study of 19 foals that had front limbs, including coffin and pedal bone rotation and clubbed feet. Several of the horses had to be euthanized. The towers that were installed were 984 to 2297 feet from their farm. The study showed healthy horses brought into the farm showed adverse effects shortly after being there.

I have also read about dairy cows not producing as much milk. There is a higher death rate among calves, and other animals. And we all know that

they are bird and bat killers.

In this area, where they're proposing this, we got a lot of farmers, a lot of cattle. What's it going to do to all those cattle? And what's it going to do to other horses, the cattle, other animals? What's it going to do to us? How many people in three counties, participants and non-participants, understand what kind of effects the wind towers are going to have on them? They won't hear it from NextEra. Setbacks should be at least two miles from all residences, in town and rural. Personally, I would prefer 10 miles.

CHAIRMAN HANSON: Thank you, Amy.

KRISTI MOGAN: Hi, it's Kristi. I'm going to take my second crack and ask two questions. Tyler, during the presentation, did you use Grant County's ordinance that was in effect in November and December of 2018? Or did you use the new one that came into effect at the end of January 2019? The conditional use permit for Grant County was approved in December of 2018. Which ordinance did you use in the presentation?

TYLER WILHELM: Well, for this piece of Grant County, was separate from what I believe you're referring which was the the Cattle Ridge Wind which is

part of CR I docket, which is separate from this one. So we would have used the -- Sorry, I don't know the ordinance by name. It would have been the ordinance that is listed within the presentation.

KRISTI MOGAN: The ordinance in the presentation is the new ordinance that was done in January of 2019.

TYLER WILHELM: If that is the new ordinance, then -- I'm sorry, are you saying what's in the app. was in the presentation is not consistent with the newest ordinance?

KRISTI MOGAN: I was under the impression that these are Crowned Ridge I and II turbines? You're saying their Cattle Ridge?

TYLER WILHELM: No, these are just Crowned Ridge II turbines. I know that we've been through multiple proceedings in Grant County with Cattle Ridge, Crowned Ridge, Crowned Ridge II so I just wanted to make sure we were on the same page.

KRISTI MOGAN: I think you should check your ordinance that's being used.

TYLER WILHELM: Sure. Okay.

KRISTI MOGEN: Do you remember in April, I think it was April, we were at the hearing for the transmission lines, and we were told those foundations

were 40 feet?

TYLER WILHELM: I believe that we boldly said potentially up to 40 feet in certain areas. I would like to check the minutes as far as what was actually said.

KRISTI MOGEN: I don't have those with me, but it seems that there is a little consensus over here that we're remembering 40 feet.

TYLER WILHELM: It's a possibility that up to 40 feet was mentioned.

KRISTI MOGAN: Okay. All right. Thanks.

CHAIRMAN HANSON: The last invite. Well, we appreciate all of you being here this evening. This is always a challenging process for the Commission. I want to reiterate a couple of things that I think are important, and I know that my fellow Commissioners may have something to say as well. There have been a lot of questions pertaining to the decision-making process. The state law requires us to follow evidence that is presented during an evidentiary hearing or through the process of submitting evidence that is accepted to the Commission. We're not legislators. I'm not putting legislators down. I was one once upon a time. The fact is that, as a legislator, you gather information you hear what people say, and make your

decision.

Our position is it has to be based on evidence, whether we love something or hate something, we have to base it on the evidence that's presented to us, and there are times that we struggle with that. But the fact is that whatever decision we make, it can be appealed to the Circuit Court and to the Supreme Court and we can be overturned. So our orders are generally around 40 pages long, because we have to justify all of those criteria that are based in law.

So if you have some strong feelings about something, if you have some evidence to present to us, we want that to assist us in making our decision. A lot of the things that were presented here this evening are items that we deal with pretty much every time. Some of them are new to us. And we will ask those questions during the process. But we won't necessarily have the evidence. There is some folks that read some things to us this evening. We appreciate that. But, again, that's not evidence to us.

Those persons who were promised a follow-up by the Applicant, that they say they would follow up with you and work with you, we would appreciate very much knowing that they do actually follow up and how

that process works with you. And as I stated earlier, we're not able to talk to you directly. We're in a quasi-judicial position similar to a judge. You wouldn't be able to walk up to a judge outside of the courtroom and outside of the hearing process and start talking to them about your case, so to speak. So the docket, you're not allowed to do that with us, because it prejudices our position. We would have to recuse ourselves and not participate.

Some of the questions were regarding items that we don't control, necessarily. We are required to give due consideration to local government. So if you've got a challenge as some folks said with the local government, you need to work that out.

There was statements, several statements about our decisions not necessarily being consistent from one docket to the next. That is, again, because we base our decision, we're required to base our decision on the evidence that is presented to us. And we can't carry over that evidence from one docket to the next to the next. So if in one case, for instance, we used forty decibels and in another we used 45, the strongest evidence, and there is conflicting evidence that's presented to us through the entire process. So we have to base our decision

on that strongest evidence. And the strongest evidence in one may have showed 40 decibels and another one, 45. So that's how some of the areas are not totally consistent. And before I say anything else, I'll jump over to the other Commissioners.

COMMISSIONER NELSON: Thank you. I have just one question for the Applicant. At this point, do you have a completed transmission interconnection agreement for this project?

DARYL HART: The interconnections have not been executed for this project, but we have two positions for the full capacity that we have applied for.

COMMISSIONER NELSON: When do you expect those agreements would be executed?

TYLER WILHELM: So let me rephrase the -- reanswer that. So we do have one interconnection agreement that is executed for this project for roughly 200 MW. We have an additional queue that's out there that would allow us to supply the full capacity of the site. I believe our first study cycle for that interconnection queue comes December of this year. And those would be executed late 2020. That actual interconnection agreement would be executed late 2020.

COMMISSIONER NELSON: So there is a possibility that that may not happen; is that accurate?

TYLER WILHELM: There is a lot of studies that need to be considered by both us and the customer so there is a possibility, yes, sir.

COMMISSIONER NELSON: Thank you. That's all the questions I've got tonight. As Commissioner Hanson indicated, we will have an opportunity as this progress plays out to ask a lot more questions. I simply want to say thank you to those of you that came tonight. I appreciate all of your comments. Obviously, we heard some great passion from some of those speakers tonight. I appreciate that. So, again, thank you for being part of this process. We're a long ways from being done with it, and I suspect that we will be working with a number of you as we play this out. Thank you.

CHAIRMAN HANSON: Commissioner Fiegen.

COMMISSIONER FIEGEN: So, thank you. At the evidentiary hearing, I will follow up with a question, if that's a MISO interconnection. I won't waste your time tonight. But thank you so much for coming out.

I do have a question for the Applicant. When you show community benefits, and I know this is a

broken record so you, the Commissioners have heard me and I know you guys have all heard me. I'm assuming that the Deuel School District, Waverly, and Watertown are at that ten-year time frame. So the first five years it's full payment; the last five years are that 20 percent step down so that it goes to zero at ten. Why don't you show the South Dakota School District payment from year 11, I guess, after 10 on to 25?

DARYL HART: So after the ten-year benefit, which I believe goes to the state and the local effort, I guess, I'm not a tax expert, but I believe that the local effort takes the place of it, so.

TYLER WILHELM: So if I heard the question correctly, Commissioner, so what we represented in our presentation was the local benefit and we did not include what happens after the year ten and then it goes to the state. That was left out because we were speaking to the local crowd here and wanted to reflect something that wasn't inflated that also included the state which caused confusion on the time being extended.

COMMISSIONER FIEGEN: So thank you. So this is the ten-year benefit to Deuel School Harvest, and then is it their first percentage that they get out of this school aid formula from year 11 to 25? Is that

in that amount, or is that just the first ten years?

TYLER WILHELM: It's just the first ten years.

COMMISSIONER FIEGEN: Okay. Thank you. That's my questions today, but thank you so much for2019 0 coming out and, Chairman Hanson, turn it over to you.

CHAIRMAN HANSON: Thank you. And Ladies and Gentlemen, as the Commissioners said, this is going to be a long process and if you wish to participate, there is a methodology for doing that. Just contact the PUC and we'll go through that process. Have a good evening and please travel safe.

(MEETING CONCLUDED AT 7:56 P.M.)

STATE OF SOUTH DAKOTA)
:SS **CERTIFICATE**
COUNTY OF CODINGTON)

BE IT KNOWN that the foregoing record was stenographically reported by me with backup audio recording, NANCY McCLANAHAN, a court reporter; and that the foregoing 2-90 pages are a true and correct transcript of all the proceedings had upon the taking of said proceeding, all done to the best of my skill and ability.

DATED at Watertown, South Dakota, Codington County, on this 13th day of October, 2019.

/s/ Nancy McClanahan

Nancy McClanahan
Stenographic Court Reporter
IA CSR/RPR/RMR

THE PUBLIC UTILITIES COMMISSION

OF THE STATE OF SOUTH DAKOTA

= =

IN THE MATTER OF THE APPLICATION BY CROWNED RIDGE WIND II, LLC FOR A PERMIT OF A WIND ENERGY FACILITY IN DEUEL, GRANT, AND CODINGTON COUNTIES — EL19-027 ORIGINAL

= =

Transcript of Recorded Proceedings
September 17, 2019

= =

BEFORE THE PUBLIC UTILITIES COMMISSION,
GARY HANSON, CHAIRMAN
CHRIS NELSON, VICE CHAIRMAN
KRISTIE FIEGEN, COMMISSIONER

COMMISSION STAFF
Karen Cremer
Greg Rislov
Adam de Hueck
Darren Kearney
Jon Thurber
Eric Paulson
Kaitlyn Baucom
Kristen Edwards
Mikal Hanson

A P P E A R A N C E S

Miles Schumacher and Brian Murphy,
appearing on behalf of Crowned Ridge Wind II;

Amber Christenson and Kristi Mogen,
appearing pro se;

Amanda Reiss,
appearing on behalf of Staff.

Reported By Cheri McComsey Wittler, RPR, CRR
Precision Reporting, 213 S. Main, Onida, South Dakota
cwittler@venturecomm.net

The following transcript of recorded proceedings was held in the above-entitled matter at the South Dakota State Capitol, 500 East Capitol Avenue, Pierre, South Dakota, on the 17th day of September, 2019.

CHAIRMAN HANSON: Docket EL19-027, In the Matter of the Application by Crowned Ridge Wind II, LLC For a Permit of a Wind Energy Facility in Deuel, Grant, and Codington Counties.

The Intervenors are represented by Mr. Schumacher. The Staff assigned to this -- did I say Mr. Schumacher? Good luck with that.

Staff assigned to this docket -- at least I know that -- Darren Kearney, Jon Thurber, Eric Paulson, Kristen Edwards, Amanda Reiss, and Mikal Hanson.

Questions for us today are shall the Commission issue a procedural schedule? Shall the Commission grant CRW the second's request to designate Section 11.10 as found in the August 6 Application for party status as confidential? Or how shall the Commission proceed?

And we've seen a lot of filings since we first met and discussed this and deferred it, and we are interested in the final update from Crowned Ridge Wind.

MR. SCHUMACHER: Thank you, Mr. Chairman. Miles Schumacher again.

First of all, Applicant has no objection to the proposed procedural schedule. And on the confidentiality matter we would like to offer just a very brief argument.

For background, as part of the certain Intervenor's petition for party status they quoted

Section 11.10 of a form of easement that Crowned Ridge Wind II provided many years ago to one of the landowners with the understanding, as explained in the Affidavit of Hart, that the form of easement was to be held confidential.

Section 11.10 is in hundreds of executed wind easements throughout the U.S. which have been held confidential. In fact, although copies of the old easement form with Section 11.10 have been left with residents that ultimately did not execute the agreement, the form of agreement has remained confidential per our request when we provided it to these residents.

The standard here is whether Crowned Ridge Wind took reasonable steps to maintain the confidentiality of Section 11.10, and it has. Section 11.10 qualifies as a trade secret or otherwise confidential information under ARSD 20:10:01:39(4)(6) and ARSD 20:10:01:42, as well as SDCL 15-6-26C-7 and SDCL 37-29-1(4).

In the effort not to repeat the arguments in the brief and the affidavit of Hart, I'll highlight why Section 11.10 qualifies for confidential treatment. Section 11.10 sets forth a provision that Crowned Ridge Wind II has not included in its current easement agreement and, therefore, public disclosures of the provision shows the competitors of Crowned Ridge II what

Crowned Ridge Wind II and its affiliated companies throughout the U.S. has included in its easement and what it no longer offers in its easement, which provides these competitors with information they can use to develop more attractive offers to landowners, which in turn directly impacts the competitiveness of Crowned Ridge Wind II's affiliates, given the highly competitive nature of wind project development and the competition for participating landowners, as Hart explains in his Affidavit.

The development of wind projects fundamentally depends on securing willing landowners. As the Affidavit of Hart explains, it costs millions of dollars to develop a project. To the extent, for example, an affiliate of Crowned Ridge Wind does not sign up sufficient participants for a project because a competitor is able to use the information and gain insight from understanding that Crowned Ridge Wind affiliates no longer offers Section 11.10 and the project does not go forward, the economic harm to the affiliates of Crowned Ridge Wind will be in the millions of dollars (Inaudible).

Staff contends that since the concept in Section 11.10 (Inaudible).

CHAIRMAN HANSON: Miles, pause for just a second, please.

Okay. Thank you. Someone may have turned on a phone in some -- or a web page or something of that nature in the background, and it interfered with what you were saying in your last sentence. Would you start over with that sentence, please.

MR. SCHUMACHER: I hear another beep, but I don't hear much.

CHAIRMAN HANSON: Mr. Schumacher, can you hear me?

MR. SCHUMACHER: Yes. I can now.

CHAIRMAN HANSON: All right. For some reason, we lost everyone for a moment, and hoping that other folks on the phone can hear us as well. I'm not going to run through everyone. We'll just check.

MR. SCHUMACHER: I have just a little bit left here. Thank you, Mr. Chairman.

CHAIRMAN HANSON: Thank you.

MR. SCHUMACHER: Staff contends that since the concept in 11.10 is commonly known in the industry, Section 11.10 is not appropriately considered a trade secret.

We believe Staff's argument is in error. Staff incorrectly views 11.10 in isolation and on a stand-alone basis rather than a part of the larger confidential easement and the gives and takes in that easement, as

well as the business decision not to include it in the current form of easement.

On these points, Staff and Intervenors provide no evidence that the industry knows and understands how Section 11.10 was used in the context of the entire easement and why it is no longer used. In fact, Crowned Ridge is the only party that has provided evidence which comes in the form of the Affidavit from an experienced wind developer, Daryl Hart, and shows by a preponderance of the evidence that Section 11.10 should be treated as confidential. Mr. Hart's Affidavit is the only evidence offered on this issue.

For reference, ARSD 20:10:01:42 states, "The party requesting confidentiality has the burden of proving by a preponderance of the evidence that the information qualifies as confidential information by showing that disclosure would result in material damage to its financial or competitive position, reveal a trade secret, or impair the public interest."

Further, the Commission has broad authority to --

CHAIRMAN HANSON: Miles, you said you only had it sounded like one sentence left. I'm going to check to make certain that the Intervenors are still on the phone with us.

Amber Christenson, are you on the phone?

MS. CHRISTENSON: Yes, I am. Thank you for checking.

CHAIRMAN HANSON: Yes. And Kristi Mogen?

MS. MOGEN: Yes, I am. Thank you.

CHAIRMAN HANSON: All right. Thank you very much.

MR. SCHUMACHER: Just a couple sentences yet. Thank you, Mr. Chairman.

CHAIRMAN HANSON: All right.

MR. SCHUMACHER: Finally, Section 11.10 has no relevance to this proceeding. It is undisputed that the Crowned Ridge Wind easements do not include Section 11.10. Whether Crowned Ridge Wind at some time in the past used Section 11.10 does not go to any of the regulatory or statutory criteria in this proceeding, which is further support that it should not be publicly disclosed.

Rather at the heart of Intervenor's argument that it wants public disclosure of easement provisions, including 11.10, is the theory that allowing shadow flicker and sound on a nonparticipants's property is a taking of property without compensation in violation of State and Federal Constitutions.

Not only is the Intervenor's argument wholly

without merit, the case law in this case makes it clear that such a legal claim is not ripe for consideration until the wind project is actually operational.

I have Brian Murphy and Daryl Hart here to answer any questions that the Commission might have.

Thank you.

CHAIRMAN HANSON: Thank you.

And I will turn to the Intervenors next and then to Staff. And, Amber Christenson, you are first by right of the alphabet.

MS. CHRISTENSON: All right.

My statement was similar to what I wrote in about, is there's no meeting of the minds that the people they left the Application with would keep it confidential. There's no signed confidentiality anything.

You know, Crowned Ridge may have wished they would have kept it confidential, but my understanding of a contract, it has to have a meeting of the minds, and I don't see that as one.

And I also believe that we need to show the public what's out there. You know, we're here to protect South Dakota. We're not here to protect NextEra Energy.

That's my statement. Thank you.

CHAIRMAN HANSON: Thank you, Ms. Christenson.

And I'll turn next to Ms. Mogen.

MS. MOGEN: I agree with Amber and Staff. You know, this agreement, this contract, has been spread all over northeastern South Dakota. We've seen many different versions of it.

And, you know, NextEra still has not produced a confidentiality agreement with the person who is the other Intervenor who is presenting this document. If they show up with one of those, then maybe I'd reconsider my position, but they do not have one. This is fair game for everybody.

CHAIRMAN HANSON: Thank you.

And Staff. Ms. Reiss.

MS. REISS: Thank you, Mr. Chair. This is Amanda Reiss for Staff.

Staff filed a brief laying out our position on this matter and would stand by for questions.

Thank you.

CHAIRMAN HANSON: Thank you. And I'm sure there are some questions, especially -- as I understand it then, Mr. Schumacher, you've -- according to the written items we have received, you're withdrawing. And, as I understand today, you've stated today verbally you're withdrawing your request that -- for confidentiality on both items that you had originally requested

confidentiality on; is that correct?

MR. SCHUMACHER: We are still looking for confidential treatment of the language in Section 11.10.

CHAIRMAN HANSON: Thus, your argument.

All right. Well, thank you. I'm a bit perplexed that you would do that. In looking at --

When this was originally presented my feeling was you certainly have the right to request that because if another party announces something and presents something for public consumption, then certainly you have the right to at least request the Commission to look at that and determine whether it should be.

It seemed obvious to me that if these are already in the public knowledge, that it's strange to request that they would be granted confidentiality again.

I enjoy reading A.J. Swanson's letters, his pros and -- I'm sorry he can't be with us because of his broken wrist, but I thought he made very good points. And, frankly, I thought that our Staff made excellent points. And I don't find your arguments substantive.

I'll give you an opportunity to respond to that, but your written responses and your verbal -- your oral presentation today pretty much presents all of your arguments.

I'm just at a loss of how you can -- I guess in Ms. Christenson's letter, which I guess I found entertaining too, was her statement that the unsigned contracts are like a swarm of gnats flying around the head of this docket and that these wind contracts, with all similar and sometimes slightly varied language, are scattered around northeastern South Dakota like confetti at Times Square on New Year's Eve.

I'm thinking she exaggerated just a smidgen on that, but if that's the case, how can you claim confidentiality when, in fact, they are ubiquitously distributed -- universally distributed around, well, probably several states?

That's a question.

MR. SCHUMACHER: Chairman Hanson, there's a difference between being passed around by hand among the various landowners and posting them on the docket where they are accessible by our competitors across the country.

And the concern is is that posting them on the docket serves no purpose other than to put Crowned Ridge in a position where its competitors are free to pick up that language and use it to the disadvantage of Crowned Ridge. And that's far different from having them passed around by word of mouth or hand to hand among the

landowners in the area.

CHAIRMAN HANSON: Well, I beg to differ with you. Your competitors are quite well experienced, and they're in -- throughout the -- international. And they could easily access those. I think they're in the public wherewithal at the present time.

The two arguments that you make that there's no other purpose to them, most certainly there's a purpose of presenting to the Commission, for one, and to argument that there is something that can be done about shadow flicker.

I have some other questions, but I'm going to allow -- I'm going to allow for other Commissioners if they have questions at this time. Or concerns.

Commissioner Nelson.

COMMISSIONER NELSON: For Mr. Schumacher, the letter you filed yesterday, I apologize, but I have no idea what you're asking for. Can you help me understand what you were asking for in that letter?

MR. SCHUMACHER: Yes.

Commissioner Nelson, the filing had been made to put a redacted confidential version on the docket, and, to our knowledge, there have been no requests for that information. And we've been attempting to have a protective order in place, and our feeling now is is that

until a request is made for that confidential version, it serves no purpose to continue to be on the docket so we're looking to pull it.

COMMISSIONER NELSON: Okay. Thank you. I appreciate that.

No further questions.

CHAIRMAN HANSON: Questions? Commissioner Fiegen has none.

So is there a motion on this docket?

Commissioner Nelson.

COMMISSIONER NELSON: I move in EL19-027 that we grant Staff's request for a procedural schedule and that we find that Section 11.10 is not confidential for the reasons listed in Staff's brief.

CHAIRMAN HANSON: Discussion on that motion.

COMMISSIONER NELSON: I will say two things. Actually I'm going to say three things.

Staff's brief laid out two reasons why they felt that this should not be confidential. The first relied upon the language of ARSD 20:10:01:41. And Staff's contention that that would, in fact, allow someone who was the nonfiler to request confidentiality such as is happening in this case, I don't agree with that conclusion.

But it ends up being irrelevant because I do

believe that Staff's conclusions regarding the fact that the material itself is not confidential wins the day and wins the argument and, therefore, my motion to not retain the confidentiality of this particular language.

As has been noted, this language was spread around. And I find it an incredible argument to think that you can provide this language to people in attempts to sign up landowners and then all the sudden later say, oh, but, by the way, you have a responsibility to keep it confidential.

It doesn't work that way. You can't just give somebody something and then later say, oh, by the way, there's parameters around what we just gave you. And so, therefore, I don't believe it should remain confidential.

The last thing I will say, and Mr. Schumacher had it in his written arguments and he repeated it again today -- and I want you to think about this. His reasoning for keeping this confidential -- and I'm going to quote this. He said today "to prevent more attractive offers to landowners."

Well, when we get all of these developers coming to South Dakota, one of the things that they are contending is, by golly, you should approve our Application because we are benefiting landowners. And

now he's saying, well, by golly, we wouldn't want to do anything to further improve the offer to landowners. I just find that offensive as it relates to South Dakota landowners.

And so for all those reasons, my motion.

CHAIRMAN HANSON: Further discussion on the motion? No?

I apologize. I was going to ask a question of Mr. Christenson and Ms. Mogen.

Ms. Christenson, did you -- I don't believe that you did but -- I know you didn't sign anything, but did you state to them that you would keep it confidential when they presented the information to you?

MS. CHRISTENSON: They didn't present it to me.

CHAIRMAN HANSON: So you've just received it from other parties?

MS. CHRISTENSON: Yeah. Neighbors. Neighbors that had blank ones in their possession.

CHAIRMAN HANSON: Thank you. And, Ms. Mogen, is that the situation with you as well?

MS. MOGEN: That's correct.

CHAIRMAN HANSON: Okay. Thank you very much.

And in discussion I would just say that I believe every party -- every party, whether they're an Intervenor or whether they're the Applicant, has the

right, Staff has the right, to request that something be held confidential -- in confidentiality. And then it's up to the Commission to decide whether it should or should not be. Otherwise -- even if it's someone else that presents the information. Otherwise, people could present confidential information, and there would be no means other than trying to go to court to stop it. And that falls on our shoulders.

I stated my position earlier, and I will be supporting the motion.

Any further discussion on the motion?

Hearing none, Commissioner Nelson.

COMMISSIONER NELSON: Aye.

CHAIRMAN HANSON: Commissioner Fiegen.

COMMISSIONER FIEGEN: Fiegen votes aye.

CHAIRMAN HANSON: Hanson votes aye. The motion carries.

One question on this docket: According to 20:10:01:43 under Requests For Access To Confidential Information, "Requests for access to confidential information shall be handled as follows:" Sub 4 states, "Upon a determination that the information is not confidential, the information shall be afforded confidential treatment for an additional period of 10 days or for a longer period as ordered by the

Commission to give the party asserting confidentiality an opportunity to seek review by the Court."

So that is under statute -- or under rules. And, as I understand, they now have 10 days to seek Court intervention.

MS. CREMER: Yes. This is Karen Cremer, and that would be correct. And it would be -- if they're not going to seek Court review, it would be nice if they would let us know that so that we can make this public as soon as possible.

CHAIRMAN HANSON: Thank you. And it does state that unless the Commission decides to add additional time.

Is there any desire -- a motion from any of the Commissioners to allow the Applicant additional time, more than the 10 days?

Hearing none, we will move to item 6 on the agenda.

STATE OF SOUTH DAKOTA)

:SS CERTIFICATE

COUNTY OF SULLY)

I, CHERI MCCOMSEY WITTLER, a Registered Professional Reporter, Certified Realtime Reporter and Notary Public in and for the State of South Dakota:

DO HEREBY CERTIFY that as the duly-appointed shorthand reporter, I took in shorthand the proceedings had in the above-entitled matter on the 17th day of September, 2019, and that the attached is a true and correct transcription of the proceedings so taken.

Dated at Onida, South Dakota this 27th day of September, 2019.

/s/ Cheri McComsey Wittler
Cheri McComsey Wittler,
Notary Public and
Registered Professional Reporter
Certified Realtime Reporter

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/s [1] - 19:17

1

10 [3] - 17:25, 18:4, 18:16
11.10 [21] - 3:13, 4:1, 4:6, 4:9, 4:15, 4:21, 4:22, 5:18, 5:23, 6:19, 6:20, 6:23, 7:5, 7:10, 8:11, 8:14, 8:15, 8:21, 11:3, 14:13
15-6-26C-7 [1] - 4:18
17 [1] - 1:8
17th [2] - 2:4, 19:10

2

2019 [4] - 1:8, 2:5, 19:11, 19:14
20:10:01:39(4)(6 [1] - 4:17
20:10:01:41 [1] - 14:20
20:10:01:42 [2] - 4:17, 7:13
20:10:01:43 [1] - 17:19
213 [1] - 1:24
27th [1] - 19:13

3

37-29-1(4) [1] - 4:18

4

4 [1] - 17:21

5

500 [1] - 2:3

6

6 [2] - 3:14, 18:17

A

A.J [1] - 11:17
able [1] - 5:15
above-entitled [2] - 2:2, 19:10
access [3] - 13:5, 17:19, 17:20
accessible [1] - 12:18
according [2] - 10:21, 17:18
Adam [1] - 1:14
add [1] - 18:12
additional [3] - 17:24, 18:12, 18:15
affidavit [1] - 4:20
Affidavit [5] - 4:3, 5:9, 5:11, 7:8, 7:11
affiliate [1] - 5:13
affiliated [1] - 5:1
affiliates [3] - 5:7, 5:17, 5:19
afforded [1] - 17:23
agenda [1] - 18:18
ago [1] - 4:2
agree [2] - 10:2, 14:23
agreement [5] - 4:10, 4:11, 4:24, 10:3, 10:7
allow [4] - 13:13, 14:21, 18:15
allowing [1] - 8:21
alone [1] - 6:23
alphabet [1] - 9:10
Amanda [3] - 1:22, 3:10, 10:15
amber [1] - 8:1
Amber [3] - 1:20, 9:9, 10:2
AND [1] - 1:5
announces [1] - 11:9
answer [1] - 9:5
apologize [2] - 13:17, 16:8
appearing [3] - 1:19, 1:21, 1:22
Applicant [3] - 3:21, 16:25, 18:15
APPLICATION [1] - 1:4
Application [4] - 3:2, 3:14, 9:14, 15:25
appointed [1] - 19:8
appreciate [1] - 14:5
appropriately [1] - 6:20
approve [1] - 15:24
area [1] - 13:1
argument [8] - 3:23, 6:22, 8:19, 8:25, 11:4, 13:9, 15:3, 15:6
arguments [5] - 4:19, 11:21, 11:25, 13:7, 15:17
ARSD [4] - 4:17, 7:13, 14:20
asserting [1] - 18:1
assigned [2] - 3:6, 3:8
attached [1] - 19:11
attempting [1] - 13:24
attempts [1] - 15:7
attractive [2] - 5:5, 15:20
August [1] - 3:14
authority [1] - 7:20
Avenue [1] - 2:3
aye [3] - 17:13, 17:15, 17:16

B

background [2] - 3:24, 6:3
basis [1] - 6:24
Baucom [1] - 1:16
beep [1] - 6:6
BEFORE [1] - 1:10
beg [1] - 13:2
behalf [2] - 1:19, 1:22
benefiting [1] - 15:25
between [1] - 12:16
bit [2] - 6:15, 11:5
blank [1] - 16:18
Brian [2] - 1:19, 9:4
brief [5] - 3:23, 4:20, 10:16, 14:14, 14:18
broad [1] - 7:20
broken [1] - 11:19
burden [1] - 7:14
business [1] - 7:1
BY [1] - 1:4

C

Capitol [2] - 2:3
carries [1] - 17:17
case [4] - 9:1, 12:10, 14:23
certain [2] - 3:24, 7:24
certainly [3] - 11:8, 11:10, 13:8
CERTIFICATE [1] - 19:2
Certified [2] - 19:6, 19:19
CERTIFY [1] - 19:8
Chair [1] - 10:14
CHAIRMAN [26] - 1:10, 1:11, 3:1, 5:24, 6:8, 6:11, 6:17, 7:22, 8:4, 8:6, 8:10, 9:7, 9:25, 10:12, 10:19, 11:4, 13:2, 14:7, 14:15, 16:6, 16:15, 16:19, 16:22, 17:14, 17:16, 18:11
Chairman [4] - 3:19, 6:16, 8:9, 12:15
check [2] - 6:14, 7:23
checking [1] - 8:3
Cheri [3] - 1:24, 19:17, 19:18
CHERI [1] - 19:5
CHRIS [1] - 1:11
CHRISTENSON [4] - 8:2, 9:11, 16:14, 16:17
Christenson [6] - 1:20, 8:1, 9:9, 9:25, 16:9, 16:10
Christenson's [1] - 12:2
claim [2] - 9:2, 12:10
clear [1] - 9:1
CODINGTON [1] - 1:5
Codington [1] - 3:4
coming [1] - 15:22
Commission [10] - 3:11, 3:12, 3:15, 7:20, 9:5, 11:11, 13:9, 17:3, 18:1, 18:12
COMMISSION [3] - 1:1, 1:10, 1:12
Commissioner [6] - 13:15, 13:21, 14:7, 14:10, 17:12, 17:14
COMMISSIONER [7] - 1:11, 13:16, 14:4, 14:11, 14:16, 17:13, 17:15
Commissioners [2] - 13:13, 18:15
commonly [1] - 6:19
companies [1] - 5:1
compensation [1] - 8:23
competition [1] - 5:8
competitive [2] - 5:7, 7:18
competitiveness [1] - 5:6
competitor [1] - 5:15
competitors [5] - 4:25, 5:4, 12:18, 12:22, 13:3
concept [2] - 5:22, 6:19
concern [1] - 12:20
concerns [1] - 13:14
conclusion [1] - 14:24
conclusions [1] - 15:1
confetti [1] - 12:7
confidential [27] - 3:15, 4:5, 4:8, 4:11, 4:16, 4:21, 6:24, 7:11, 7:16, 9:15, 9:18, 11:3, 13:22, 14:1, 14:13, 14:19, 15:2, 15:10, 15:15, 15:19, 16:12, 17:2, 17:6, 17:19, 17:20, 17:23, 17:24
confidentiality [13] - 3:22, 4:14, 7:14, 9:15, 10:7, 10:24, 11:1, 11:15, 12:11, 14:22, 15:4, 17:2, 18:1
consideration [1] - 9:2
considered [1] - 6:20
Constitutions [1] - 8:24
consumption [1] - 11:10
contending [1] - 15:24
contends [2] - 5:22, 6:18
contention [1] - 14:21
context [1] - 7:5
continue [1] - 14:2
contract [2] - 9:19, 10:3
contracts [2] - 12:4, 12:5
copies [1] - 4:8
correct [4] - 11:1, 16:21, 18:7, 19:12
costs [1] - 5:12
COUNTIES [1] - 1:5
Counties [1] - 3:4
country [1] - 12:19
COUNTY [1] - 19:3
couple [1] - 8:8
court [1] - 17:7
Court [3] - 18:2, 18:4, 18:8
Cremer [2] - 1:13, 18:6
CREMER [1] - 18:6
criteria [1] - 8:16
crowned [1] - 4:22
Crowned [17] - 1:19, 3:2, 3:18, 4:1, 4:13, 4:25, 5:1, 5:6, 5:14, 5:17, 5:19, 7:7, 8:13, 8:14, 9:17, 12:21, 12:23
CROWNED [1] - 1:4
CRR [1] - 1:24
CRW [1] - 3:13
current [2] - 4:23, 7:2
cwittler@venturecomm.net [1] - 1:25

D

DAKOTA [2] - 1:2, 19:1
Dakota [10] - 1:24, 2:3, 2:4, 9:23, 10:4, 12:7, 15:23, 16:3, 19:7,

19:13
damage [1] - 7:17
Darren [2] - 1:14, 3:9
Daryl [2] - 7:9, 9:4
Dated [1] - 19:13
days [3] - 17:25, 18:4, 18:16
de [1] - 1:14
decide [1] - 17:3
decides [1] - 18:12
decision [1] - 7:1
deferred [1] - 3:17
designate [1] - 3:13
desire [1] - 18:14
determination [1] - 17:22
determine [1] - 11:12
Deuel [1] - 3:3
DEUEL [1] - 1:5
develop [2] - 5:4, 5:12
developer [1] - 7:9
developers [1] - 15:22
development [2] - 5:8, 5:10
differ [1] - 13:2
difference [1] - 12:16
different [2] - 10:5, 12:24
directly [1] - 5:5
disadvantage [1] - 12:23
disclosed [1] - 8:18
disclosure [2] - 7:17, 8:20
disclosures [1] - 4:24
discussed [1] - 3:17
discussion [4] - 14:15, 16:6, 16:23, 17:11
distributed [2] - 12:12
DO [1] - 19:8
docket [9] - 3:1, 3:8, 12:5, 12:17, 12:21, 13:22, 14:2, 14:9, 17:18
document [1] - 10:8
dollars [2] - 5:12, 5:20
done [1] - 13:10
duly [1] - 19:8
duly-appointed [1] - 19:8

E

easement [11] - 4:1, 4:4, 4:9, 4:23, 5:2, 5:3, 6:25, 7:2, 7:6, 8:20
easements [2] - 4:7, 8:13
easily [1] - 13:5
East [1] - 2:3
economic [1] - 5:19
Edwards [2] - 1:16, 3:10
effort [1] - 4:19
EL19-027 [3] - 1:4, 3:1, 14:11
ends [1] - 14:25
energy [1] - 3:3
ENERGY [1] - 1:5
Energy [1] - 9:23
enjoy [1] - 11:17
entertaining [1] - 12:3
entire [1] - 7:5
entitled [2] - 2:2, 19:10
Eric [2] - 1:15, 3:9
error [1] - 6:22
especially [1] - 10:20
Eve [1] - 12:8
evidence [5] - 7:4, 7:8, 7:10, 7:12, 7:15
exaggerated [1] - 12:9
example [1] - 5:13
excellent [1] - 11:20
execute [1] - 4:10
executed [1] - 4:6
experienced [2] - 7:9, 13:3
explained [1] - 4:3
explains [2] - 5:9, 5:12
extent [1] - 5:13

F

facility [1] - 3:3
FACILITY [1] - 1:5
fact [5] - 4:8, 7:6, 12:11, 14:21, 15:1
fair [1] - 10:10
falls [1] - 17:8
far [1] - 12:24
Federal [1] - 8:24
felt [1] - 14:18
FIEGEN [2] - 1:11, 17:15
Fiegen [3] - 14:8, 17:14, 17:15
filed [2] - 10:16, 13:17
filing [1] - 13:21
filings [1] - 3:16
final [1] - 3:18
finally [1] - 8:11
financial [1] - 7:18
first [4] - 3:16, 3:21, 9:9, 14:19
flicker [2] - 8:22, 13:11
flying [1] - 12:4
folks [1] - 6:13
following [1] - 2:1
follows [1] - 17:21
FOR [1] - 1:4
form [6] - 4:1, 4:4, 4:9, 4:11, 7:2, 7:8
forth [1] - 4:22
forward [1] - 5:19
frankly [1] - 11:20
free [1] - 12:22
fundamentally [1] - 5:10

G

gain [1] - 5:16
game [1] - 10:10
GARY [1] - 1:10
given [1] - 5:7
gnats [1] - 12:4
golly [2] - 15:24, 16:1
grant [3] - 3:3, 3:12, 14:12
GRANT [1] - 1:5
granted [1] - 11:15
Greg [1] - 1:13
guess [2] - 12:1, 12:2

H

hand [3] - 12:16, 12:25
handled [1] - 17:21
HANSON [25] - 1:10, 3:1, 5:24, 6:8, 6:11, 6:17, 7:22, 8:4, 8:6, 8:10, 9:7, 9:25, 10:12, 10:19, 11:4, 13:2, 14:7, 14:15, 16:6, 16:15, 16:19, 16:22, 17:14, 17:16, 18:11
Hanson [4] - 1:17, 3:10, 12:15, 17:16
harm [1] - 5:19
Hart [6] - 4:4, 4:20, 5:9, 5:12, 7:9, 9:4
Hart's [1] - 7:11
head [1] - 12:5
hear [4] - 6:6, 6:7, 6:8, 6:13
hearing [2] - 17:12, 18:17
heart [1] - 8:19
held [4] - 2:2, 4:4, 4:7, 17:2
help [1] - 13:18
HEREBY [1] - 19:8
highlight [1] - 4:20
highly [1] - 5:7
hoping [1] - 6:12
Hueck [1] - 1:14
hundreds [1] - 4:6

I

idea [1] - 13:18
II [7] - 1:4, 1:19, 3:2, 4:2, 4:23, 4:25, 5:1
II's [1] - 5:6
impacts [1] - 5:6
impair [1] - 7:19
improve [1] - 16:2
IN [2] - 1:4, 1:5
Inaudible) [2] - 5:21, 5:23
include [2] - 7:1, 8:13
included [2] - 4:23, 5:2
including [1] - 8:21
incorrectly [1] - 6:23
incredible [1] - 15:6
industry [2] - 6:19, 7:4
information [13] - 4:16, 5:4, 5:16, 7:16, 13:24, 16:13, 17:5, 17:6, 17:20, 17:21, 17:22, 17:23
insight [1] - 5:16
interest [1] - 7:19
interested [1] - 3:18
interfered [1] - 6:3
international [1] - 13:4
Intervenor [2] - 10:8, 16:25
Intervenor's [3] - 3:25, 8:19, 8:25
Intervenors [4] - 3:5, 7:3, 7:24, 9:8
intervention [1] - 18:5
irrelevant [1] - 14:25
isolation [1] - 6:23
issue [2] - 3:12, 7:12
item [1] - 18:17
items [2] - 10:22, 10:25
itself [1] - 15:2

J

Jon [2] - 1:15, 3:9

K

Kaitlyn [1] - 1:16
Karen [1] - 18:6
karen [1] - 1:13
Kearney [2] - 1:14, 3:9
keep [3] - 9:14, 15:9, 16:12
keeping [1] - 15:19
kept [1] - 9:18
knowledge [2] - 11:14, 13:23
known [1] - 6:19
knows [1] - 7:4
Kristen [2] - 1:16, 3:10
Kristi [2] - 1:20, 8:4
KRISTIE [1] - 1:11

L

laid [1] - 14:18
landowners [11] - 4:2, 5:5, 5:9, 5:11, 12:17, 13:1, 15:8, 15:21, 15:25, 16:2, 16:4
language [7] - 11:3, 12:6, 12:23, 14:20, 15:4, 15:5, 15:7
larger [1] - 6:24
last [2] - 6:4, 15:16
law [1] - 9:1
laying [1] - 10:16
least [2] - 3:8, 11:11
left [4] - 4:9, 6:15, 7:23, 9:14
legal [1] - 9:2
letter [3] - 12:2, 13:17, 13:19
letters [1] - 11:17
listed [1] - 14:14
LLC [2] - 1:4, 3:2
look [1] - 11:11
looking [3] - 11:2, 11:6, 14:3
loss [1] - 12:1
lost [1] - 6:12
luck [1] - 3:7

M

Main [1] - 1:24
maintain [1] - 4:14
material [2] - 7:17, 15:2
MATTER [1] - 1:4
matter [5] - 2:2, 3:1, 3:23, 10:17, 19:10
MCCOMSEY [1] - 19:5
McComsey [3] - 1:24, 19:17, 19:18
means [1] - 17:7
meeting [2] - 9:13, 9:19
merit [1] - 9:1
met [1] - 3:17
might [1] - 9:5
Mikal [2] - 1:17, 3:10

miles [1] - 5:24
Miles [3] - 1:19, 3:19, 7:22
millions [2] - 5:12, 5:20
minds [2] - 9:13, 9:19
Mogen [5] - 1:20, 8:4, 10:1, 16:9, 16:19
MOGEN [3] - 8:5, 10:2, 16:21
moment [1] - 6:12
most [1] - 13:8
motion [9] - 14:9, 14:15, 15:3, 16:5, 16:7, 17:10, 17:11, 17:16, 18:14
mouth [1] - 12:25
move [2] - 14:11, 18:17
MR [10] - 3:19, 6:6, 6:10, 6:15, 6:18, 8:8, 8:11, 11:2, 12:15, 13:20
MS [9] - 8:2, 8:5, 9:11, 10:2, 10:14, 16:14, 16:17, 16:21, 18:6
Murphy [2] - 1:19, 9:4

N

nature [2] - 5:7, 6:3
need [1] - 9:21
neighbors [2] - 16:17
Nelson [4] - 13:15, 13:21, 14:10, 17:12
NELSON [6] - 1:11, 13:16, 14:4, 14:11, 14:16, 17:13
New [1] - 12:8
next [2] - 9:8, 10:1
NextEra [2] - 9:23, 10:6
nice [1] - 18:8
none [3] - 14:8, 17:12, 18:17
nonfiler [1] - 14:22
nonparticipants's [1] - 8:22
northeastern [2] - 10:4, 12:7
Notary [2] - 19:7, 19:18
noted [1] - 15:5

O

objection [1] - 3:21
obvious [1] - 11:13
OF [6] - 1:2, 1:4, 1:5, 19:1, 19:3
offensive [1] - 16:3
offer [2] - 3:23, 16:2
offered [1] - 7:12
offers [4] - 5:3, 5:5, 5:18, 15:21
old [1] - 4:8
one [8] - 4:2, 7:23, 9:20, 10:9, 10:10, 13:9, 15:23, 17:18
ones [1] - 16:18
Onida [2] - 1:24, 19:13
operational [1] - 9:3
opportunity [2] - 11:22, 18:2
oral [1] - 11:23
order [1] - 13:25
ordered [1] - 17:25
originally [2] - 10:25, 11:7
otherwise [3] - 4:16, 17:4, 17:5

P

page [1] - 6:2
parameters [1] - 15:13
part [2] - 3:24, 6:24
participants [1] - 5:15
participating [1] - 5:8
particular [1] - 15:4
parties [1] - 16:16
party [8] - 3:14, 3:25, 7:7, 7:14, 11:9, 16:24, 18:1
passed [2] - 12:16, 12:24
past [1] - 8:15
Paulson [2] - 1:15, 3:9
pause [1] - 5:24
people [3] - 9:13, 15:7, 17:5
per [1] - 4:11
period [2] - 17:24, 17:25
permit [1] - 3:3
PERMIT [1] - 1:5
perplexed [1] - 11:6
person [1] - 10:7
petition [1] - 3:25
phone [4] - 6:2, 6:13, 7:24, 8:1
pick [1] - 12:22
Pierre [1] - 2:4
place [1] - 13:25
points [3] - 7:3, 11:19, 11:21
position [5] - 7:18, 10:10, 10:16, 12:22, 17:9
possession [1] - 16:18
possible [1] - 18:10
posting [2] - 12:17, 12:20
Precision [1] - 1:24
preponderance [2] - 7:10, 7:15
present [3] - 13:6, 16:14, 17:6
presentation [1] - 11:24
presented [2] - 11:7, 16:13
presenting [2] - 10:8, 13:9
presents [3] - 11:9, 11:24, 17:5
pretty [1] - 11:24
prevent [1] - 15:20
pro [1] - 1:21
procedural [3] - 3:12, 3:22, 14:12
proceed [1] - 3:15
proceeding [2] - 8:12, 8:16
Proceedings [1] - 1:7
proceedings [3] - 2:2, 19:9, 19:12
produced [1] - 10:6
Professional [2] - 19:6, 19:19
project [5] - 5:8, 5:13, 5:15, 5:18, 9:3
projects [1] - 5:10
property [2] - 8:22, 8:23
proposed [1] - 3:22
pros [1] - 11:17
protect [2] - 9:22, 9:23
protective [1] - 13:25
provide [2] - 7:3, 15:7
provided [3] - 4:2, 4:12, 7:7
provides [1] - 5:3
proving [1] - 7:15
provision [2] - 4:22, 4:25
provisions [1] - 8:20
PUBLIC [2] - 1:1, 1:10
public [8] - 4:24, 7:19, 8:20, 9:22, 11:10, 11:14, 13:5, 18:9
Public [2] - 19:7, 19:18
publicly [1] - 8:17
pull [1] - 14:3
purpose [4] - 12:21, 13:8, 14:2
put [2] - 12:21, 13:22

Q

qualifies [3] - 4:15, 4:21, 7:16
questions [8] - 3:11, 9:5, 10:17, 10:20, 13:12, 13:14, 14:6, 14:7
quite [1] - 13:3
quote [1] - 15:20
quoted [1] - 3:25

R

rather [2] - 6:24, 8:19
reading [1] - 11:17
Realtime [2] - 19:6, 19:19
reason [1] - 6:11
reasonable [1] - 4:14
reasoning [1] - 15:19
reasons [3] - 14:14, 14:18, 16:5
received [2] - 10:22, 16:15
reconsider [1] - 10:9
Recorded [1] - 1:7
recorded [1] - 2:1
redacted [1] - 13:22
reference [1] - 7:13
regarding [1] - 15:1
Registered [2] - 19:5, 19:19
regulatory [1] - 8:16
REISS [1] - 10:14
Reiss [4] - 1:22, 3:10, 10:13, 10:15
relates [1] - 16:3
relevance [1] - 8:12
relied [1] - 14:19
remain [1] - 15:14
remained [1] - 4:11
repeat [1] - 4:19
repeated [1] - 15:17
Reported [1] - 1:24
Reporter [4] - 19:6, 19:19, 19:19
reporter [1] - 19:9
Reporting [1] - 1:24
represented [1] - 3:5
request [10] - 3:13, 4:12, 10:24, 11:8, 11:11, 11:15, 14:1, 14:12, 14:22, 17:1
requested [1] - 10:25
requesting [1] - 7:14
requests [3] - 13:23, 17:19, 17:20
residents [2] - 4:10, 4:12
respond [1] - 11:22
responses [1] - 11:23
responsibility [1] - 15:9
result [1] - 7:17
retain [1] - 15:3
reveal [1] - 7:18
review [2] - 18:2, 18:8
Ridge [17] - 1:19, 3:2, 3:18, 4:1, 4:13, 4:25, 5:1, 5:6, 5:14, 5:17, 5:20, 7:7, 8:13, 8:14, 9:17, 12:21, 12:24
ridge [1] - 4:22
RIDGE [1] - 1:4
ripe [1] - 9:2
Rislov [1] - 1:13
RPR [1] - 1:24
rules [1] - 18:3
run [1] - 6:14

S

scattered [1] - 12:7
schedule [3] - 3:12, 3:22, 14:12
Schumacher [8] - 1:19, 3:6, 3:7, 3:20, 6:8, 10:21, 13:16, 15:16
SCHUMACHER [10] - 3:19, 6:6, 6:10, 6:15, 6:18, 8:8, 8:11, 11:2, 12:15, 13:20
SDCL [2] - 4:18
se [1] - 1:21
second [1] - 5:25
second's [1] - 3:13
secret [3] - 4:16, 6:21, 7:19
section [2] - 5:23, 7:5
Section [16] - 3:13, 4:1, 4:6, 4:9, 4:15, 4:21, 4:22, 5:18, 6:20, 7:10, 8:11, 8:14, 8:15, 11:3, 14:13
securing [1] - 5:11
see [1] - 9:20
seek [3] - 18:2, 18:4, 18:8
sentence [3] - 6:4, 6:5, 7:23
sentences [1] - 8:8
September [4] - 1:8, 2:4, 19:11, 19:14
serves [2] - 12:21, 14:2
sets [1] - 4:22
several [1] - 12:13

shadow [2] - 8:21, 13:10
shall [5] - 3:11, 3:12, 3:15, 17:21, 17:23
shorthand [2] - 19:9
shoulders [1] - 17:8
show [2] - 9:21, 10:9
showing [1] - 7:17
shows [2] - 4:25, 7:9
sign [3] - 5:14, 15:8, 16:11
signed [1] - 9:15
similar [2] - 9:12, 12:6
situation [1] - 16:20
slightly [1] - 12:6
smidgen [1] - 12:9
someone [3] - 6:1, 14:21, 17:4
sometimes [1] - 12:6
soon [1] - 18:10
sorry [1] - 11:18
sound [1] - 8:22
sounded [1] - 7:23
SOUTH [2] - 1:2, 19:1
South [10] - 1:24, 2:3, 2:4, 9:23, 10:4, 12:7, 15:23, 16:3, 19:7, 19:13
spread [2] - 10:3, 15:5
Square [1] - 12:8
SS [1] - 19:2
Staff [14] - 1:22, 3:6, 3:8, 5:22, 6:18, 6:22, 7:3, 9:9, 10:2, 10:13, 10:15, 10:16, 11:20, 17:1
STAFF [1] - 1:12
Staff's [6] - 6:22, 14:12, 14:14, 14:18, 14:20, 15:1
stand [2] - 6:23, 10:17
stand-alone [1] - 6:23
standard [1] - 4:13
start [1] - 6:4
state [3] - 8:24, 16:12, 18:11
STATE [2] - 1:2, 19:1
State [2] - 2:3, 19:7
statement [3] - 9:12, 9:24, 12:3
states [3] - 7:13, 12:13, 17:21
status [2] - 3:14, 3:25
statute [1] - 18:3
statutory [1] - 8:16
steps [1] - 4:14
still [3] - 7:24, 10:6, 11:2
stop [1] - 17:7
strange [1] - 11:14
sub [1] - 17:21
substantive [1] - 11:21
sudden [1] - 15:8
sufficient [1] - 5:14
SULLY [1] - 19:3
support [1] - 8:17
supporting [1] - 17:10
Swanson's [1] - 11:17
swarm [1] - 12:4

T

THE [5] - 1:1, 1:2, 1:4, 1:10
theory [1] - 8:21
therefore [3] - 4:24, 15:3, 15:14
thinking [1] - 12:9
three [1] - 14:17
throughout [3] - 4:7, 5:2, 13:4
Thurber [2] - 1:15, 3:9
today [6] - 3:11, 10:23, 11:24, 15:18, 15:20
took [2] - 4:14, 19:9
trade [3] - 4:16, 6:20, 7:18
Transcript [1] - 1:7
transcript [1] - 2:1
transcription [1] - 19:12
treated [1] - 7:11
treatment [3] - 4:21, 11:3, 17:24
true [1] - 19:11
trying [1] - 17:7
turn [3] - 5:5, 9:8, 10:1
turned [1] - 6:1
two [3] - 13:7, 14:16, 14:18

U

U.S [2] - 4:7, 5:2
ubiquitously [1] - 12:11
ultimately [1] - 4:10
under [4] - 4:16, 17:19, 18:3
undisputed [1] - 8:12
universally [1] - 12:12
unless [1] - 18:12
unsigned [1] - 12:3
up [6] - 5:14, 10:9, 12:22, 14:25, 15:8, 17:3
update [1] - 3:18
UTILITIES [2] - 1:1, 1:10

V

varied [1] - 12:6
various [1] - 12:17
verbal [1] - 11:23
verbally [1] - 10:23
version [2] - 13:22, 14:1
versions [1] - 10:5
VICE [1] - 1:11
views [1] - 6:23
violation [1] - 8:23
votes [2] - 17:15, 17:16

W

wants [1] - 8:20
web [1] - 6:2
wherewithal [1] - 13:6
wholly [1] - 8:25
willing [1] - 5:11
Wind [12] - 1:19, 3:2, 3:18, 4:2, 4:13, 5:1, 5:6, 5:14, 5:17, 5:20, 8:13, 8:14
WIND [2] - 1:4, 1:5
wind [8] - 3:3, 4:6, 4:23, 5:7, 5:10, 7:9, 9:3, 12:5
wins [2] - 15:2, 15:3
wished [1] - 9:17
withdrawing [2] - 10:22, 10:24
Wittler [3] - 1:24, 19:17, 19:18
WITTLER [1] - 19:5
word [1] - 12:25
wrist [1] - 11:19
written [3] - 10:21, 11:23, 15:17
wrote [1] - 9:12

Y

Year's [1] - 12:8
years [1] - 4:2
yesterday [1] - 13:17

STATE OF SOUTH DAKOTA) :SS COUNTY OF DEUEL)		IN CIRCUIT COURT THIRD JUDICIAL CIRCUIT
In the Matter of PUC Docket EL 19-027, Application of Crowned Ridge Wind II, LLC for a Permit of a Wind Energy Facility in Deuel, Grant and Codington Counties	*	19CIV20-000027 (as combined by the Court)
AMBER CHRISTENSON, and ALLEN ROBISH, Appellants, vs. SOUTH DAKOTA PUBLIC UTILITIES COMMISSION and CROWNED RIDGE WIND II, LLC, Appellees.	*	*APPELLANTS' CHRISTENSON and ROBISH'S BRIEF to CIRCUIT COURT*

Intervenors below and Appellants herein, Amber Christenson and Allen Robish from Codington County and Grant County, respectively, through undersigned counsel, hereby submit this brief as part of their appeal of the administrative hearing decision below and in doing so respectfully request this Court to reverse the erroneous and unwarranted final decision dated April 6, 2020, granting permit to construct the wind facility in question in Deuel County, Codington County and Grant County and, in doing so, remand this matter back to the PUC.

PRELIMINARY STATEMENT

For ease of reference, Appellants, Amber Christenson and Allen Robish, will typically be referred to as either the "Grant-Codington Co. Appellants", or, "Appellants." Appellees in this matter will be referred to as either "PUC Appellee", or as the "Commission", or as the "PUC", as to "Crowned Ridge Wind-II," or as "CRW-II", or as "Appellee CRW-II." References herein to the extensive administrative hearing record (over 14,255 pages) below will be made by the letters "AR" followed by the applicable administrative record page number(s), where such are able to be so noted.

References to any administrative hearing transcript(s) below will typically be made by the letters "AHT:" followed by the applicable page number(s).

JURISDICTIONAL STATEMENT and STATEMENT OF THE CASE

As generally referenced above, Appellants Christenson and Robish appeal from PUC Appellee's April 6, 2020, Final Decision and Order Granting Permit to Construct Facility; Permit Conditions; and Notice of Entry as related to its issuance of a wind energy facility permit to Appellee CRW-II. Based on the adverse administrative hearing decision below, the appeal in this matter is taken pursuant to the provisions of SDCL § 1-26-30, as provided for by SDCL § 49-41B-30. Appellants each timely and properly filed their respective Notice of Appeals on May 1, 2020 and May 5, 2020, in both Codington and Grant Counties. Thereafter, following PUC Appellee's unopposed motion to change venue (May 11, 2020), the circuit court, pursuant to SDCL § 1-26-31.1, entered its Order changing venue herein (May 19, 2020), and this Court ordered that the Intervenors file(s) would be thereafter combined into this appellate file, 19CIV-000027. On or about July 23-24, 2020, each of the Appellees herein were contacted by your undersigned, on behalf of Appellants, and, given a number of intervening scheduling circumstances for your undersigned, Appellees were courteous enough to agree to Appellants herein filing their jointly filed circuit court brief in this matter by the below-referenced date.

STATEMENT OF ISSUES

ISSUE 1

Whether the Agency/PUC's findings of fact were clearly erroneous and its corresponding conclusions of law amounted to reversible error under SDCL § 1-26-36, in part, since Applicant failed to meet its burden of proof and/or its burden of going forward as required by SDCL § 49-41B-22 and/or ARSD 20:10:01:15.01?

> Over the objection and opposition filed by Intervenors on March 2, 2020 and as outlined again on March 17, 2020, Commission subsequently entered its Findings of Facts (1-73) and Conclusions of Law (1-16). AR pgs. 14232-14245.

Filed: 8/10/2020 4:07 PM CST Deuel County, South Dakota 19CIV20-000027
- Page 1386 -

ISSUE 1-A

Whether Appellee Commission committed prejudicial error in violation of statutory provisions insofar as Applicant admittedly failed to carry its burden of proof by its failure to establish compliance with all applicable laws and rules since it relied on an erroneous version of the Grant County Ordinance, not in effect at the time of its 2018 locally approved Conditional Use Permit ("CUP")?

Appellee PUC wrongly and prejudicially entered Finding of Fact No. 18 (FN. 24) in erroneously finding, in essence, that Appellee CRW-II will be in compliance with applicable laws, including the Grant County Ordinance since, directly contrary to testimony by Jay Haley, that Appellee CRW-II "complies with both versions of the of the Grant County Ordinance – the one in effect at the time of the approval of the Project by Grant County, and the one made effective shortly after the [December 2018 CUP] vote. AHT pgs. 233-234; AR pgs. 9078-9079.

ISSUE 1-B

Whether Appellee Commission committed error in violation of statutory provisions insofar as Applicant failed to meet the statutory requirements of SDCL § 49-41B-25.2 by and through its failure, at the time of the Commission's hearing on the merits of its wind energy facility permit, of being equipped with - or even having applied for - the necessary and statutorily required aircraft detection lighting system (ADLS)?

Appellee PUC wrongfully granted the permit on April 6, 2020, prior to Applicant having been approved for or being equipped with the statutorily required and operational aircraft detection lighting system. AHT pgs. 76-77 and AHT pgs. 86-87.

ISSUE 2

Whether Appellee Commission, failed to receive and consider Appellee Crowned Ridge Wind II, LLC's complete application for a wind energy facility permit through the time of the evidentiary hearing herein contrary to the requirements of South Dakota law, pursuant to SDCL 49-41B-22 (3), including the submission for review of a pre-construction sound or health study in each (or any) of the adversely affected counties?

Appellee CRW-II failed to initiate or complete a pre-construction sound study in any of the three (3) adversely affected counties in the project area.

STATEMENT OF FACTS

Crowned Ridge Wind-II, LLC, as a wholly owned indirect subsidiary of NextEra Energy Resources, LLC, filed its Application with the Commission on July 9, 2019, for a Wind Facility Permit for a wind energy conversion facility to be located in in Codington, Grant and Deuel Counties. *See*, AR pgs. 000001, 000011. The proposed Application indicated that the Project was to include up to 132 wind turbine generators, access roads to turbines and associated facilities, underground 34.5-kilovolt (kV) electrical collector lines, underground fiber-optic cable, a 34.5-kV to 230-kV collection

substation, two permanent meteorological towers, and an operations and maintenance facility. As set forth within the Appellee CRW-II's Application, Crowned Ridge Wind-II has entered into a purchase and sale agreement under which it planned to obtain the permit herein and construct the Project and later transfer the Project, along with its facility permits to Northern States Power Company. AR pgs. 000011. Pursuant to state statute then, the Commission was required to issue a written decision within only nine (9) months of receiving Appellee CRW-II's Application.

After receipt of the Application, the Commission received several applications for party status. As applicable herein, party status was thereafter granted for Amber Christenson and Allen Robish, as Intervenors/Appellants herein, at the Commission's regularly scheduled meeting on July 25, 2019; and in addition, on August 21, 2019, Intervenor status was also granted to at least five (5) additional persons, Garry Ehlebracht, Steven Greber, Mary Greber, Richard Rall, Amy Rall and Laretta Kranz, all being represented by attorney A.J. Swanson, at the Commission's regularly scheduled meeting.

The Commission scheduled a public input meeting for August 26, 2019, in Watertown, SD, during which Appellee CRW-II was to present a brief description of the proposed wind energy facility project to those persons interested in the same and said persons would be permitted to present their views, comments and questions regarding the Application. The Commission also set the deadline for party status (i.e., intervention deadline) for September 9, 2019.

Thereafter, on September 17, 2019, during the PUC's regular meeting, the Commission entered a procedural schedule requiring intervenors to submit pre-filed testimony by December 9, 2019, and indicating for the parties to provide witness lists, exhibit lists, and pre-filed by January 29, 2020. Thereafter, the administrative (evidentiary) hearing was scheduled for February 4-7, 2020. *See*, February 4th: AR pgs. 8844-9133; February 5th: AR pgs. 13309-13625; February 6th: AR pgs. 13630-13771. It was also within and as a part of its pre-hearing meeting (January 29, 2020) that the Commission denied the Motion by Appellee CRW-II attempting to make confidential Section 11.10, the effects clause of the lease(s) offered by the wind farm developer to potential project participants.

Filed: 8/10/2020 4:07 PM CST Deuel County, South Dakota 19CIV20-000027
- Page 1388 -

None of the intervenors submitted pre-filed expert testimony. Intervenors Garry Ehlebracht, Steven Greber, Amy Rall and Laretta Kranz submitted pre-filed direct testimony on December 12, 2019.

Early in the PUC's evidentiary hearing on February 4, 2020, the hearing parties agreed to the admission of all pre-filed and hearing-related exhibits for foundation purposes. Appellee CRW-II then presented their witnesses and corresponding testimony for Applicant. As part of cross-examination of Applicant's initial witness, senior project manager Tyler Wilhelm, who was responsible for the development, permitting, regulatory compliance, and meeting the commercial operations date of the project, Intervenor Christenson presented and had admitted into the hearing exhibit AC-18, which was actually the Grant County ordinance in effect at the time the Grant County Conditional Use Permit Application was made and approved in 2018. *See*, AR pgs. 8727, 8796; *cf.*, AR pgs. 13074-13112. Ultimately, however, Wilhelm admitted that the project was actually "in compliance" with the different/less stringent requirements that Grant County was "working toward adopting" in ordinance to be in effect on and after January 28, 2019 [i.e., for instance in Grant County, [w]ind turbine noise levels at the less stringent - inapplicable - ordinance requirements of less than 45 dBA "measured twenty-five (25) feet from the perimeter of existing non-participating residences, businesses and buildings..."[1]] AHT pgs. 46-55; AR pgs. 8891-8900.

It should be reiterated that Appellee CRW-II's project is to be built in three northeast South Dakota counties: Deuel, Codington and Grant. Ordinances vary between counties in distance and noise, in particular. Not only does each county vary in its siting distance and noise threshold, but within each county there are separate distances and thresholds for residents within each county,

[1] *See*, Exhibit A19-3, [new] Grant County Ordinance Section 14: *Noise*. AR pgs. 3207-3215; as compared to Exhibit AC-18 at AR pg. 8796: "Noise level shall not exceed 50 dBA ... at the perimeter of the principal *and accessory structures* of existing off-site residences, businesses and buildings..." [Emphasis added.] *See/cf.*, Exhibit A, for ease of comparison of the applicable (2018) Grant Co. noise/sound ordinance provision vs. the inapplicable (2019) Grant Co. noise/sound ordinance provision, as attached hereto and incorporated herewith in full as part of Appellants' Brief.

depending on where the residence is located. Equal protection is not applied to each principal and/or accessory structure(s) in the negatively impacted area of this project. Moreover, as borne out at hearing, Appellee CRW-II failed to provide any evidence on and to include in its key sound study information related to 179 sound receptors (structure locations) in the adversely impacted area.[2]

In addition, later in the PUC's evidentiary hearing, despite knowing that such a facility, pursuant to state statute, can "not substantially impair the health, safety or welfare of [neighboring occupants]" – Applicant, Appellee CRW-II, presented proposed experts who are capable of conducting air quality studies, yet its witnesses seemingly acknowledged that no air quality study was published or submitted, nor, as it was disclosed, did Applicant provide plans to complete an air quality study of the project area. AHT pgs. 313-314; AR pgs. 13373-13374.[3]

Moreover, it was also learned at hearing that, as part of its permit request and prior to the administrative hearing herein, Appellee CRW-II had failed to even apply for the necessary and statutorily required aircraft detection lighting system (hereinafter referenced as "ADLS", where

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[2] *See*, Jay Haley testifying for Appellee CRW-II, Q: "[The CUP] was passed under the old [Grant County] ordinance. So who directed you to drop the accessory structures. A: I don't recall, but -- I can tell you that when -- at the time that the accessory structures were a part of the ordinance we calculated -- we went out and surveyed all of the accessory structures, and I calculated all of them and produced reports with those results. [However] [w]hen the ordinance got changed, I then took all the accessory structures back out." AHT pgs. 233-234; 237-238; AR pgs. 9078-9079; 9082-9083. As a result, Appellee CRW-II could not persuasively testify at hearing in February 2020 that the projected wind farm noise levels would not exceed the new 45 dBA local ordinance requirement. In fact, Exhibit AC-19 (AR pgs. 8686-8723, at pg. 8694 & pgs. 8705-8710) actually indicates that, directly contrary to Appellee PUC's Finding of Fact Nos. 18 & 46, there were and are, in fact, *over fifty* (*50*) locations/structures where the realistic sound would, as shown by and through Appellee CRW-II's own Final Report as to both CRW-I and CRW-II, fall into/exceed that locally prohibited 45-50 dBA range.

[3] *See*, Applicant's witness Rich Lampeter was asked by Intervenor Christenson: "Q: Did Crowned Ridge Wind II ask you to perform a preconstruction sound modeling study? A: Yes. That study was conducted and they requested it. Q: And that's the study you were talking about that's not been published or submitted? A: That's correct. We went and collected the data and *put together some draft summary findings*, and that's where it currently stands. … Q: Did Crowned Ridge Wind II ask you to perform any studies or modeling regarding low frequency noise or infrasound. A: *No*. Q: According to your resume, you have experience in air quality modeling. Did Crowned Ridge Wind II ask you to perform any air quality study or model for this project? A: *No*." [2/5/2020, AHT, page 314]; *see also*, ARSD 20:10:22:21: The applicant *shall provide evidence* that the proposed facility will comply with air quality standards and regulations of any federal or state agency having jurisdiction and any variances permitted. [Emphasis added.]

appropriate).[4] That is, Tyler Wilhelm also testified at hearing before the Commission that they were not (yet) applying for ADLS approval from the FAA; however, they were "targeting" in their planning to do that in April 2020 – after the PUC's permit decision.[5] In sum, as part of this record, Appellee CRW-II, as Applicant, among other key issues, specifically fell short in establishing by a preponderance of the evidence that it had the required approval *and* necessary operability[6] of ADLS lighting related to the turbines in/for this wind farm project as required by SDCL § 49-41B-25.2.

Given the extensive length of the underlying record in this matter, any additional relevant facts will be discussed, as may be necessary, within Appellants' argument portion of its brief herein.

ARGUMENT:

-STANDARD OF REVIEW-

This Court's review of the South Dakota PUC's decision granting Applicant/Appellee CRW-II's application for a wind energy facility is controlled by SDCL § 1-26-36. *Tebben v. Gil Haugen Const., Inc.,* 2007 SD 18, ¶ 5, 729 NW2d 166, 171. SDCL § 1-26-36, in turn, provides, in pertinent part, as follows:

> The court shall give great weight to the findings made and inferences drawn by an agency on questions of fact. The court may affirm the decision of the agency or remand the case for further proceedings. The court may reverse or modify the decision if

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[4] *See*, § 49-41B-25.2: For any wind energy facility that receives a permit under this chapter after July 1, 2019, the facility *shall be equipped with an aircraft detection lighting system* that meets the requirements set forth by the Federal Aviation Administration for obstruction marking and lighting in Chapter 14 of FAA Advisory Circular (AC) 70/7460-1L, "Obstruction Marking and Lighting," dated December 4, 2015. Any cost associated with the installation, operation, or maintenance of a system under this section is solely the responsibility of any owner of the wind energy facility. [Emphasis added.]

[5] Actually, the record only reflects that Appellee CRW-II, indicated to the PUC on March 17, 2020 at Appellee PUC's post-hearing final proceedings that it had submitted such application on or about March 12, 2020. *See*, Wilhelm testimony, AHT pgs. 76-77 and AHT pgs. 86-87 [AR pgs. 8921-8922; AR pgs. 8931-8932]; *cf.*, March 17, 2020, AHT pgs. 7-8; 11-12.

[6] As of early June 2020, Crowned Ridge Wind acknowledged to Appellee PUC that there was, in fact, "an issue with the communication with the on-site ADLS server" and that a "subject matter expert is investigating the issue [with the ADLS]." *See*, June 9, 2020, filed letter to PUC; following fine imposed by Appellee PUC on Crowned Ridge Wind based on a lack of operational ADLS, as noted in the public PUC docket, EL 20-002. https://puc.sd.gov/Dockets/Electric/2020/EL20-002.aspx.

substantial rights of the appellant have been prejudiced because the administrative findings, inferences, conclusions, or decisions are:

(1) In violation of constitutional or statutory provisions;
(2) In excess of the statutory authority of the agency;
(3) Made upon unlawful procedure;
(4) Affected by other error of law;
(5) Clearly erroneous in light of the entire evidence in the record; or
(6) Arbitrary or capricious or characterized by abuse of discretion or clearly unwarranted exercise of discretion. ...

As such, the Commission's factual findings are, of course, reviewed herein under the clearly erroneous standard. *In re Otter Tail Power Co., ex. rel. Big Stone II,* 2008 SD 5, ¶ 26, 744 NW2d 594, 602. Conclusions of Law, however, are to be reviewed based on a de novo standard. *Id.* As the court is also aware, mixed questions of law and fact are fully reviewable. *Kuhle v. Lecy Chiropractic,* 2006 SD 16, ¶ 16, 711 NW2d 244, 247.

Issue 1. Appellee PUC's findings of fact were clearly erroneous and its corresponding conclusions of law amounted to reversible error under SDCL § 1-26-36, in part, since Applicant failed to meet its burden of proof and/or its burden of going forward as required by SDCL § 49-41B-22 and/or ARSD 20:10:01:15.01.

As the Court is aware, SDCL § 49-41B-22, as related to Applicant's minimum threshold burden of proof in administrative hearing matters such as this, provides that:

The applicant has the burden of proof to establish by a preponderance of the evidence that:

(1) *The proposed facility will comply with all applicable laws and rules*;
(2) The facility will not pose a threat of serious injury to the environment nor to the social and economic condition of inhabitants or expected inhabitants in the siting area. An applicant for an electric transmission line, a solar energy facility, or a wind energy facility that holds a conditional use permit from the applicable local units of government is determined not to threaten the social and economic condition of inhabitants or expected inhabitants in the siting area;
(3) *The facility will not substantially impair the health, safety or welfare of the inhabitants*; and
(4) The facility will not unduly interfere with the orderly development of the region with due consideration having been given the views of governing bodies of affected local units of government. An applicant for an electric transmission line, a solar energy facility, or a wind energy facility that holds a conditional use permit

> from the applicable local units of government is in compliance with this subdivision. [Emphasis added.]

See also, ARSD 20:10:01:15.01 ("In any contested case proceeding, the… applicant… has the burden of going forward with presentation of evidence…")

Intervenor/Appellants initially point to Appellee CRW-II's failure to meet its burden below, through at least witness Mark Thompson as its Manager of wind engineering within the engineering and construction organization of NextEra Energy, insofar as his failure to provide evidence, let alone a preponderance of evidence, as to when/how/who CRW-II would use or otherwise undertake to properly comply with either federal or state standards and regulations for the project's plan related to "generation, treatment, storage, transport and disposal of solid or radioactive waste generated by the proposed [energy] facility and evidence that all disposal of [such] waste will comply with [such] regulations." ARSD 20:10:22:31. In that regard, at the PUC's administrative hearing below what appears to be the only related exchange with Mr. Thompson on the foregoing topic went as follows:

> Q: …So, at the end of life of this project there will be 396 blades and many more during the life of the project… So just at the end of [the project] life that will require a disposal of 9,980,575 pounds of refuse, or the shipping weight is 11,840,004 pounds of refuse. Not knowing if any of the blades are toxic at this point, which [you] don't believe they are according to you earlier, … where is Crowned Ridge II intending to dump 10 to 12 million pounds? And that number would double if there was the – the other project would be at the same time. And I understand now that those are different projects. So we'll just talk about 10 to 12 million pounds of blade refuse. Where have you made plans to dump that much blade refuse? And that doesn't include any rebar, cement, anything else. Just the blade refuse.
>
> *Thompson:* So as it stands right now, you're correct. They would be disposed of in a landfill, pursuant to applicable laws. The plan – and I assume that you mean at the end of the life of the project.
>
> Q: Yes.
>
> *Thompson:* The plan as it stands now is to cut these blades up into pieces for transport and dispose of them in landfills. Now this is usually a contracted process. And the landfills could either be local or off-site or out of state. Given that we're over 20 years away, we think that there would be, you know, processes that are developed or put in

> place to *maybe* recycle some of these. So disposing of these blades in landfills I think is the worst-case scenario or I would say the last resort. So I think with the options that are *possibly under development*, you could see that the amount of refuse going to these landfills could be significantly less. … As far as the weight and the amount of refuse, when you compare that to [some] landfill, it's relatively small for the amount. And, again, *we're hoping that at the end of the day or the end of life [of the project] we'll find a way to recycle these* Fiberglass blades. Or even reuse them.
>
> Q: How long have they been using Fiberglass blades in this industry? How many years do you think?
>
> *Thompson:* Oh my God. My first ever wind site that I went to in California … they were Fiberglass blades there. And that site was built in the '80's. So, it's been a long time.
>
> Q: Okay. And they haven't found a way to recycle them as of yet, and that's, oh my gosh, 40 years. …
>
> *Thompson:* Oh, *sometimes things change, really overnight sometimes*. … [Emphasis added.]; AHT pgs. 185-187; AR pgs. 9030-9032; *see also*, AHT pg. 358.

To be clear, under the legal requirements for Appellee CRW-II to apply and for Appellee PUC to approve or grant such an energy permit, it was not/is not sufficient under ARSD 20:10:22:31 for the Applicant nor Commission to fail to put forward a meaningful plan as compared to a vague (and likely unrealistic) "hope" that "sometimes things change" which may possibly, potentially or, hopefully, lead to a viable and recognizable plan for a wind farm like this to reasonably articulate its lawful plan to appropriately "treat, store, transport and dispose of" the vast amount of "solid or radioactive waste generated by this [energy] facility" as well as to meet its burden to affirmatively provide "*evidence that all disposal of [such] waste will comply with any federal or state regulations* having jurisdiction" over such volumes of uniquely cumbersome waste material, especially in light of the significant amount of such turbines and all turbine blades all being delivered and constructed in the concentrated and/or saturated area of northeastern South Dakota.

Appellants therefore submit that Appellee CRW-II generally relaying that it "hopes" to try to either recycle at least *10-12 million pounds of project-related refuse* or dispose of the same in some landfill(s) somewhere, either in South Dakota or in some other state, is *not* providing information *and*

required evidence that "all disposal of [such] waste will comply with standards and regulations of any federal or state agency having jurisdiction [over such waste removal]." *See*, ARSD 20:10:22:31. As a result, Appellants submit that such a failure amounts to an error of law insofar as Appellee PUC's apparent oversight in this regard failed to make Appellee CRW-II meet its burden of proof in this regard and/or to insure that the facility will comply with all applicable laws and rules or that, in this regard, the facility will not substantially impair the health, safety or welfare of the inhabitants, like Appellants. *See generally, In re Black Hills Power, Inc.*, 2016 S.D. 92, ¶¶ 9, 16, 889 NW2d 631, 634 and 636 (Question/issue as to meaning of administrative rule/regulatory language and whether Commission erred in finding that proponent had met its required burden of proof – where, in stark contrast to this case, the PUC took "a great deal of evidence" as related to the administrative rule in question). However, in the instant case, the above-referenced failure by Appellee CRW-II to carry its burden of proof pursuant to ARSD 20:10:22:31, in part, highlights that Findings of Fact Nos. 18 and/or 66 below are, at a minimum, clearly erroneous, to the direct prejudice of local inhabitants like Intervenors and Appellants herein. Furthermore, as outlined, Conclusion of Law No. 9 is erroneous and subject to reversal given Appellee CRW's failure to address/comply with ARSD 20:10:22:31.

> Issue 1-A. Appellee Commission committed prejudicial error in violation of statutory provisions insofar as Appellee CRW-II admittedly failed to carry its burden of proof by its failure to establish compliance with all applicable laws and rules since it relied on an erroneous version of the Grant County Ordinance, not in effect at the time of its 2018 locally approved Conditional Use Permit ("CUP").

As known and understood below by Appellee PUC and Appellee CRW-II, as the Applicant, CRW-II had previously (in 2018) secured from the three (3) counties in this case (Deuel County, Codington County and Grant County) conditional use permit(s) (hereinafter "CUP") in order to attempt to pre-address, so to speak, local laws and rules related to the operation of a large wind farm over the approximately 60,996-acres of land in northeastern South Dakota. In one of those adversely affected counties, Grant County, Appellee CRW-II applied for its CUP on September 17, 2018, and,

ultimately, the Grant County CUP was approved and granted pursuant to and under the local authority of Grant County Ordinance 2004-01.[7] Important to this issue is the fact that such Grant County Ordinance was and is the governing ordinance under which Appellee CRW-II's actions and/or key inactions must now be viewed/reviewed by this Court.

Fortunately, however, in this case the Court has applicable guidance as to how to view and consider this issue. In that regard, Appellants respectfully note that *In re Conditional Use Permit Granted to Van Zanten*, 1999 S.D. 79, ¶ 14, 598 NW2d 861, 864-865, provides important and applicable clarification and guidance in this matter. In *Van Zanten* it was outlined that, in the summer of 1997, petitioners applied to the Lake County Board of Commissioners for a conditional use permit to construct an 1,100-unit hog-finishing unit. The CUP was approved by Lake County on August 19, 1997. Shortly thereafter, in September 1997, Lake County's CUP decision was appealed to circuit court by the neighboring property owners. On appeal, the circuit court had some housekeeping type concerns with the legal description that had been advertised prior to the earlier CUP hearing and it was essentially agreed by the parties and the court to send the CUP back to the County simply to correct the legal description involved in the (prior) CUP approval. Once the legal description was corrected, the circuit court re-considered the matter. However, in the interim and up to the point of the circuit court re-looking at the CUP, Lake County revised its ordinances related to such CUP(s). In fact, on the very day (January 20, 1998) that Lake County was again approving Van Zanten's CUP – the new/revised CUP ordinance regulations took effect. Thereafter, the circuit court ruled that, as part of the challenge and ruling, that the (new/revised) ordinance in effect at the time of Lake County's subsequent CUP-issuance should govern the review of such CUP. *Van Zanten*, ¶ 10, 598 NW2d at 863. However, the Supreme Court overturned that lower tribunal decision when it specifically ruled, as also applicable herein, that in such a case, "...[T]he law in effect was the ordinance[] and

[7] AR pgs. 13072-13112; Application on September 17, 2018 - CUP granted December 17, 2018; *see also*, Exhibit AC-18, AR pg. 8727

Filed: 8/10/2020 4:07 PM CST Deuel County, South Dakota 19CIV20-000027
- Page 1396 -

regulations that were at issue on the date the notice of appeal was filed [from the application to the time of approval of the CUP]. ...[A]pplication of a new [subsequent] ordinance, ...was [improper]..." *Van Zanten*, ¶¶14-16, 598 NW2d at 864-865.

Appellants therefore respectfully submit that *Van Zanten* presents a closely analogous holding is strong supportive authority for their objections raised both below and again here on appeal to the extent that it was entirely improper, in excess of the authority of Appellee PUC and a prejudicial error of law for the Commission and Appellee CRW-II to attempt to allow CRW-II, as Applicant, to essentially attempt to improperly bootstrap their claimed compliance with Grant County Ordinance as to "Noise" to the "new" not-yet-effective and less stringent noise ordinance requirements in this matter – including the prejudicial removal of consideration of nearly 180 noise-receptor locations that Appellee CRW-II wrongfully sought to ignore in 2019.[8]

In fact, Appellants point out what appears to be clear error by Appellee CRW-II in trying to improperly finagle their claimed compliance with such Grant County zoning ordinance requirements, based, in part, on the following exchange at hearing with Tyler Wilhelm, Project Manager CRW-II, about which ordinance(s) were to be applicable as to the important sound/"Noise" level requirements:

> Q: ...The date of the approval for the Grant County Conditional Use Permit was December 17, 2018. Do you agree with that date?
> *Wilhelm:* Yes, I do.
> Q: Okay. Now if you would refer to the Applicant Exhibit 19-3, page 1, in the lower left-hand corner.
> *Wilhelm:* Can you refer to – what document is that? Is that from the county application.
> Q: It's just the county ordinance for Grant County that you submitted...
> Q: ... In the lower left-hand corner of page 1 of that document would you please read to the Commission the date the Grant County ordinance was adopted.
> *Wilhelm:* It shows December 28, 2018.
> Q: Okay. Thank you. December 28, 2018. That would be 11 days *after* you received your Conditional Use Permit [on December 17, 2018]; correct?

[8] *Cf.*, FN. 1, *supra.*

> *Wilhelm:* That would be correct, that it was officially adopted after we received our permit approval, but our –
> Q: Okay.
> *Wilhelm:* - permit application was also 100 percent consistent with everything that was --
> Q: Okay. … I'm just clarifying dates.
> Q: …Now please read to the Commission the date of the - the effective date of the ordinance. In that same lower corner [of Exhibit A19-3].
> *Wilhelm:* January 28, 2019.
> Q. Okay. So, like a month and 10 or 11 days after [CRW-II] received [its] Conditional Use Permit. So, at the time you received approval for your Conditional Use Permit for Crowned Ridge II the prior ordinance was in effect governing that Conditional Use Permit, not the version that's submitted in A19-3; correct?
> *Wilhelm:* That would be correct.
> *See*, AHT pgs. 47-49; AR pgs. 8892-8894;
> *(Cont.) Wilhelm:* I do recognize both [Grant County ordinance] documents. And what we provided is Exhibit A19-3 is the markup version of what the final ordinance came to be. And the providing of this was our means of showing what changed in the ordinance so people could track it, and we were a big part of that process and something that we're proud of. So it's just the redline or marked-up version…" AHT pgs. 53-54; AR pgs. 8898-8899.

With the foregoing in mind, then, it's important to note that the actual governing ordinance in and for Grant County as to turbine-related noise from wind farms such as CRW-II under its December 17, 2018, CUP terms and regulations states as follows:

> 13. Noise. Noise level shall not exceed 50 dBA, average A-weighted Sound pressure including constructive interference *at the perimeter of the principal and accessory structures* of existing off-site residences, businesses, and buildings owned and/or maintained by a governmental entity. [Exhibit AC-18] [Emphasis added]; *see also*, Appendix/Exhibit A, as attached.

As such, the governing ordinance for this Grant County CUP, *does not differentiate between participants and non-participants* in regard to "noise" as each is provided a sound pressure limit of 50 dBA at the *perimeter of the principal and accessory structures.*[9] *See*, Appendix/Exhibit A.

[9] Appellants jointly submit that it should go without saying that having the additional sound limitation "buffer", so to speak, applicable to and measured from the nearly 180 (additional in-county) sound receptor locations that are, in fact, "accessory structures" specifically identified in and required to be accounted for under the controlling Grant County wind facility ordinance is an extremely important health/safety concern. Moreover,

Filed: 8/10/2020 4:07 PM CST Deuel County, South Dakota 19CIV20-000027
- Page 1398 -

In addition, according to the Letter of Assurance provided in Applicant's Exhibit A1-K , Appendix K - County Conditional Use Permits, the Grant County CRW-II CUP, Item 3, Subset b, Obligation to Meet Requirements:

> "Applicant agrees that the construction and operation of all WES towers will comply with noise and shadow flicker thresholds *exhibited in the application's noise and shadow flicker analysis*." [Exhibit A1-K.]

It is also very important to note here that in its application to Grant County for the CRW-II CUP, Appellee CRW-II provided a sound study that included accessory structures. [Exhibit AC-19] The sound study included 181 receptors [locations]; but it wrongly excluded nearly all of them under the new ordinance provision.[10] CRW-II's erroneous determination that it could, in spite of the governing

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to perhaps otherwise allow both Appellee PUC and Appellee CRW-II to try to manipulate or skirt around and/or to improperly ignore such important local regulation(s) would inappropriately be serving as an indicator of lack of local government control over such locally approved permit issues. Additionally, to ignore such key local regulation(s) would unlawfully be ceding local authority to either or both state government and/or to out-of-state corporate conglomerates to the direct and irreversible detriment of local county citizens and taxpayers.

[10] Applicant witness Jay Haley testified regarding the sound and flicker studies submitted to/for this docket and to each of the 3-counties for the CRW-II permit hearings for CUPs (Codington and Grant Counties) and a Special Exception Permit (SEP) (Deuel County).

Appellee CRW-II witness Haley: "Q: In the Grant County Conditional Use Permit Letter of Assurance, which is Exhibit A1-K... Okay. It says on page 11, item 3 --...Oh, sorry. It's subset 3 -- or subset B. I'll just read it to you... "Applicant agrees that the construction and operation of all WES towers will comply with noise and shadow flicker thresholds exhibited in the Application's Noise and Shadow Flicker Analysis." In the studies presented in this docket there are four receptors listed for Grant County. In Exhibit AC-19, which is probably in your folder on the corner there. My late-filed exhibit. A: You said AC-19?... Q: That's the Grant County...sound and flicker report? A: Yep. Q: If you go to page 17 and the following four pages, so a total of five pages, you'll see those are all receptors for Grant County. And I counted 181 receptors in Grant County for that permit. A: Uh-huh. Yes. Q: And, like I say, the sound and flicker -- or the sound study submitted to this docket has four. A: Yes. Q. So how could you possibly be able to know if you're in compliance with the Conditional Use Permit if you're missing 179 receptors for study? ...A: This is a report from 2018. Q: Yes. This is your Conditional Use Permit that you have to abide by showing -- showing how the sound profile travels out into the county. But there's no receptors in your PUC sound study showing that. A: This report is from 2018, and the layout and the ordinance are completely different today than they were when this report was generated. Q: But the governing ordinance for that Conditional Use Permit and the Letter of Assurance that's been submitted to this docket say that you have to abide by these shadow and sound studies that you submitted to Grant County. You understand? A: I think I do." [Transcript 2/4/2020, page 236 - page 237; page 238 line 6, line 17 - page 239, line 5], [Exhibits A1-K and AC-19]. In addition, and as also included in Exhibit AC-19, the Application to Grant County for a Conditional Use Permit, it was indicated that the Dakota Range turbines added to the sound profile of CRWI and CRWII. However, the entire project of Dakota Range turbines were, for what seem questionable and unexplained reason(s), *not* truthfully and accurately included in the sound study submitted to this PUC docket, Docket EL19-027. The questions below were posed to Mr. Haley by Appellant Christenson on February 5, 2020 (Hearing Day No. 2) to correct his erroneous statement the prior day, when he thought Dakota Range turbines were included in the sound study of this PUC docket: CRW-II attorney, Murphy: "Q: Yesterday in response to questions you were asked whether Dakota Range turbines were

Grant County CUP requirements, in 2019 attempt to misleadingly try to sidestep Grant County's original – more stringent – sound/noise regulations by claiming that it was perhaps generally "consistent" with both (2018 and 2019) ordinance provisions cannot be overlooked or approved. Instead, it must be noted that Appellee CRW-II failed to put on sufficient evidence, by any measure, that it was, truth in fact, in full compliance with the governing (original) Grant County ordinance requirements. Appellee CRW-II not being held to account for failing to carry its burden in proving its mandatory compliance with the applicable local governing laws and regulations as to critically-important/safety-related noise regulations is both a prejudicial error of law under SDCL § 1-26-36; but also, to both Appellants and to their equally concerned neighbors direct detriment, runs directly afoul of SDCL § 49-41B-22(1) and/or (3).

As a result of the above-referenced error(s), including Appellee CRW-II's failure to comply with the applicable noise and noise distance monitoring laws and rules, Appellants therefore submit that Appellee PUC's Finding of Fact Nos. 18 and 46 are, in fact, clearly erroneous and constitutes reversible error. In addition, Appellee PUC's decision is, as outlined above, at odds with and therefore in error under Conclusion of Law Nos. 9, 13 and 15. That is, in light of the less stringent noise criteria that Appellee CRW-II attempted to sidestep in its improper effort(s) to try to be (less) governed by, such is prejudicial to persons in the adversely affected areas as to increased and intolerable noise levels – especially for all those good neighbors and taxpaying northeast South Dakota folks subject to

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included in your studies. Can you elaborate on correcting that statement? CRW-II witness Haley: A: Yes. The Dakota Range turbines are not included in the Crowned Ridge II study. I think when she said Dakota Range my brain heard Deuel Harvest. But, in fact, the Deuel Harvest turbines were included, not Dakota Range." [2/5/2020 AHT, pg. 262; AR pg. 13322]; *see also*, Statement of Facts, FN. 2, *supra*.

Consequently, Appellee CRW-II additionally failed to establish that its Application was in compliance with SDCL § 49-41B-22 (1) insofar as failing to demonstrate compliance with "all applicable laws and rules" since there was no study of all receptors, and not all possible influencing projects were appropriately submitted as part of its purported sound study. To state the fairly obvious, it was/is not possible. Appellee CRW-II therefore, to the direct prejudice of Appellants and the prospective adverse sound effects to which they would otherwise be subject, failed to meet its statutory burden and Appellee PUC failed in not denying same. *See/cf.*, SDCL § 49-41B-22 (1) thru (4); ARSD 20:10:22:04 (5) (mandatory truthful and accurate applications required).

any such excessive noise over time at either their nearby residences or at or working in their vitally important *accessory structures* as related to their once protected residences and/or farming operations.

> Issue 1-B. Appellee Commission committed error in violation of statutory provisions insofar as Applicant failed to meet the statutory requirements of SDCL § 49-41B-25.2 by and through its failure, at the time of the Commission's hearing on the merits of Appellee CRW-II's wind energy facility permit, of being equipped with - or even having applied for - the necessary and statutorily required aircraft detection lighting system (ADLS).

Beginning on July 1, 2019,[11] the South Dakota Legislature passed an important regulatory requirement for wind energy facilities in this state to - now - to apply for and be approved by the Federal Aviation Administration (FAA) to include aircraft detection lighting systems ("ADLS"). That is, SDCL 49-41B-25.2 was enacted, and it provides and requires that:

> For any wind energy facility that receives a permit under this chapter after July 1, 2019, the facility *shall be equipped with an aircraft detection lighting system* that meets the requirements set forth by the Federal Aviation Administration for obstruction marking and lighting in Chapter 14 of FAA Advisory Circular (AC) 70/7460-1L, "Obstruction Marking and Lighting," dated December 4, 2015. Any cost associated with the installation, operation, or maintenance of a system under this section is solely the responsibility of any owner of the wind energy facility. [Emphasis added.]

In spite of this pivotal requirement, however, Appellee CRW-II failed to even apply for the necessary ADLS system by the time of the February 2020 administrative hearing in seeking approval for its wind facility permit. *See/cf.*, Statement of Facts, FN. 5, *supra.* Additionally, as also outlined in the earlier Statement of Facts, what generally appears to be the after-thought that was or is the idea of equipping this large wind farm project with the required ADLS lighting is not something that has proven to be effective or in any way an efficient or prioritized safety-first process in this matter. *See*, Statement of Facts, FN. 6, *supra. See generally, Berne Area Alliance for Quality Living v. Dodge*

[11] That is, only 8-days prior to Appellee CRW-II submitting its Application (July 9, 2019) to Appellee PUC herein.

Filed: 8/10/2020 4:07 PM CST Deuel County, South Dakota 19CIV20-000027
- Page 1401 -

County Board of Commissioners, 694 NW2d 577 (Minn. App., 2005) (Applicant applied for a CUP for a "feedlot" permit and such was granted by the County. However, following a challenge, court held that such feedlot permit must first be processed to be approved by the PCA [Pollution Control Agency]). By way of a general analogy then, Appellants urge that it be required that – prior to Appellee PUC's issuance of any such wind energy permit herein – Appellee CRW-II should have been required to obtain the required ADLS permit and to be able to establish, prior to such permitting, that the required ADLS would be operational and functional. This is especially true here since Appellee CRW-II strongly alluded to – contrary to the clear statutory requirement – legally challenging any such need for ADLS if certain events or conditions may later signal it from so doing.[12] As a result, Appellants submit that – knowing the key and beneficial life/safety/health attributes to and from the need for ADLS associated with such invasive wind farm sites – Appellee PUC failed to properly consider the strong possibility of the life/safety/health risk(s) to local inhabitants should Appellee CRW-II fail to obtain *and* to make effective and safely operable the required ADLS lighting as compared to potentially having such need challenged in court – *after* CRW-II was otherwise (prematurely and improperly) granted such a wind energy permit in this case.

Appellants therefore submit that Appellee PUC's Finding of Fact Nos. 18, 30 and 66 are, in fact, clearly erroneous and constitute reversible error in regard to the lack of the required operational ADLS. In addition, Appellee PUC's decision is, as outlined above, at odds with and therefore in error under Conclusion of Law Nos. 9 and 15.

> Issue 2. Appellee Commission failed to receive and consider Appellee Crowned Ridge Wind II, LLC's complete application for a wind energy facility permit through the time of the evidentiary hearing herein contrary to the requirements of South Dakota law, pursuant to SDCL 49-41B-22 (3), including the submission for review of a pre-construction sound or health study in each (or any) of the adversely affected counties.

[12] *See*, the following telling exchange with a PUC Commissioner at the administrative hearing below: "Am I to infer from your statement on page 6 that I stated -- am I to infer that if the FAA were to state that you did not need the ADLS and yet the PUC said as a condition that you would have ADLS, would you contest that in Circuit Court?" Appellee CRW-II Witness, Wilhelm: "I would say yes." 2/4/2020, AHT page 86, AR 8931.

Once again, as applicable herein, SDCL § 49-41B-22 (3), as related to Appellee CRW-II's minimum threshold burden of proof in such matter, provides that:

The applicant ha[d] the burden of proof to establish by a preponderance of the evidence that:

(3) The facility will not substantially impair the health, safety or welfare of the inhabitants…

However, pursuant to the above-referenced requirement as to such large wind facilities, Appellee CRW-II failed in its burden of proof and/or its burden of going forward to the extent that no pre-construction sound study was submitted to Appellee PUC in order to provide a necessary description of the adversely affected area and so as to determine whether such a wind far facility would or would not substantially impair the health, safety or welfare of local inhabitants.

> Question directed to Appellee CRW-II witness Haley: "Q: No pre-construction ambient noise study was conducted by you or anyone else that you're aware of?
> A: That's correct." [2/4/2020, AHT pg. 229; AR pg. 9074.]

> Question directed to Appellee CRW-II witness Lampeter: "Q. Did Crowned Ridge Wind II ask you to perform a pre-construction sound modeling study?
> A. Yes. That study was conducted, and they requested it.
> Q. And that's the study that you were talking about that's *not been published or submitted*?
> A. That's correct. We went and collected the data and put together some draft summary findings, and that's where it currently stands." [2/5/2020, AHT pg. 314; AR pg. 13374.]

Although four (4) proposed experts appeared and gave testimony and evidence at the evidentiary hearing for Appellee CRW-II, no infrasound or low frequency sound study was requested to be conducted, nor any study submitted to Appellee PUC for evidentiary analysis and review.

> Question to Applicant witness Haley: "Did Crowned Ridge Wind II approach you about assessing infrasound or low frequency noise for this project?
> A: No. They did not ask for a specific study on low frequency or infrasound noise." [2/4/2020, AHT pg. 230; AR pg. 9075.]

> Question to Applicant witness Ollson: "Q: …Did Crowned Ridge Wind II retain your service for a study pertaining to infrasound or low frequency noise?
> A: In terms -- it was an overview of the knowledge of the scientific literature … and why we would not be concerned." [2/5/2020, AHT pg. 357; AR pg. 13417.]

Apparently, by Mr. Ollson's answer, a study was neither prepared nor produced, only an unpersuasive and/or non-committal "overview of the knowledge of literature" was considered by CRW-II's witness.

> Question to CRW-II witness Lampeter: "Q: Did Crowned Ridge Wind II ask you to perform any studies or modeling regarding low frequency noise or infrasound?
> A: No." [2/5/2020, pg. 314, lines 12-15.]
>
> Question to Staff witness Hessler: "Q: Okay. Did Staff ask you to do any study in regard to infrasound and/or low frequency noise for this project?
> A: They didn't ask me to do it, but I did talk about it in my direct testimony.
> Q: Okay. Not an actual study, just --
> A: Oh, no. No study." [2/5/2020, AHT pg. 511, AR pg. 13571.]

In addition, contrary to the regulatory requirements of ARSD 20:10:22:21, no air quality study was requested nor submitted to Appellee PUC for review.

> Question to Appellee CRW-II witness Lampeter: "Q: According to your resume, you have experience in air quality modeling. Did Crowned Ridge Wind II ask you to perform any air quality study or model for this project?
> A: No." [2/5/2020, AHT pg. 314; AR pg. 13374.]

Furthermore, the record almost shockingly indicates that no health expert was retained by Appellee PUC in an effort to try to protect the public. Instead, PUC staff sought to otherwise attempt to rely on a generic pro forma type letter from the South Dakota Department of Health that specifically did *not* "take[ ] a formal position on wind turbines and human health," apparently as some type of entirely unpersuasive "evidence" of a claimed absence of health impairment by the project. *See*, Ex. DK-3; AR pg. 7357; 2/6/2020, AHT pg. 564; AR pg. 13673; and, also as attached as Appendix/Exhibit B herein. Clearly, such a letter cannot be deemed to meet Appellees (collective) burden of proof under SDCL § 49-41B-22 (3). Instead, in conjunction with other failed and/or overlooked evidence put forward by Appellee CRW-II, such serves to demonstrate that the Appellee PUC's findings of fact, in total, are clearly erroneous and that reversible error occurred as to fully reviewable conclusion of law matters below – all to the direct prejudice and detriment of Appellants, who must (still, for the time being) live and work in the adversely affected area with all remaining health and safety unknowns as

they sought to address below – unfortunately, all to no avail for them and for their concerned friends and neighbors as well.[13]

CONCLUSION and REQUEST FOR ORAL ARGUMENT:

For the foregoing reasons, Appellants respectfully request the Court to reverse and remand this pressing and vitally important matter to/for the health, safety and welfare of persons in and around the wind farm project area. Given the relatively weak record herein, Appellants alternatively submit that the Court could elect to entertain the remand option available pursuant to SDCL § 1-26-34. Finally, pursuant to SDCL § 1-26-33.6, if the Court approves, Appellants hereby request the opportunity to

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[13] *See also*, other related health/safety/habitat concerns as essentially ignored and/or not adequately answered below, for instance: No study or proposed conditions concerning safety of travelers on the roadway were submitted to the Commission. This question was directed to Applicant witness Sappington "Q: Did your company conduct any studies concerning shadows on the roadway? A: No." [2/5/2020, pg. 385, lines 4-6.] A question was directed to staff witness Kearney by Appellant Robish regarding safe travel near turbines: "Q: Okay. Some of the turbines proposed will be sited 600 feet or less from a highway or roadway. Will there be a requirement for a placard or warning sign to be placed at such sites by that specific turbine to warn the public of a danger of ice throws? It's been done before. A: Yeah. And there's not a specific proposed permit condition in this one." [2/6/2020, page 612, line 23-page 613, line 4].

Even though CRW-II hired qualified consultants for some studies, it did not perform, nor submit to the Commission and ice throw study for review. Question directed to Applicant witness Haley: "Okay. On line 15 you mentioned you've performed ice throw studies, and you said that in your opening statement. Did you perform any ice throw studies for this project? A: No, I did not. Q: Did Crowned Ridge Wind II ask you or anyone that you are aware of for any ice throw study to be done for this project? A: They did not ask me, and I do not know if they contacted anyone else." [2/4/2020, AHT pg. 229, line 21-pg. 230, line 5]

No study for domestic animals or wildlife for audible noise, air quality, shadow, low frequency noise or infrasound were requested or submitted to the Commission for review. ARSD 20:10:22:18 (1) (3) Question directed to Applicant witness Sappington: "Q: Did your company conduct any study concerning noise, audible and inaudible, including low frequency noise or infrasound on domestic animals? A: No." [2/5/2020 AHT pg. 385.] Question directed to Applicant witness Sappington: "Q: Did your company conduct any study concerning shadow effects on wildlife or domestic animals? A: No." [2/5/2020, AHT pg. 385, lines 7-9]

The density of not only this potential project in combination with existing projects, will affect the precious wildlife of South Dakota. Chairman Hanson and Staff witness Morey from the South Dakota Game, Fish and Parks discuss the egregious effects: "Chairman: Your answers talk about – on page 8 specifically, your answer to question on page 12 state that 'some species will not use grassland or wetland habitat within a certain distance of wind turbines.' And on page 16 you speak of the cumulative impacts. There are a lot of wind towers in that area presently. A lot is a relative term, I suspect. But this one is going to have – if it's approved, would have a *greater concentration of turbines*. With all of those turbines presently there and the potential for these, are you concerned about the cumulative impact, knowing that there's -- there is, in fact, according to your testimony, that some species will not use the grassland areas close to wind towers?" Witness: *Yes. We are concerned with cumulative impacts.* There has been, as you mentioned, a lot of development in this area. And some of the research out of North and South Dakota, there's *seven out of nine breeding grassland bird species will avoid turbines* up to 300 meters, so about a quarter mile - not quite a quarter mile. About two-tenths of a mile." [2/6/2020, AHT pg. 546, line 8 - pg. 547, line 4]. [Emphasis added.]

Appellee CRW-II confidentially filed safety information with Appellee PUC, however, such claimed confidential safety information has not been conveyed to landowners.

further expand and explain its factual and legal argument(s) herein at oral argument before this Court, at the Court's earliest convenience within its pending schedule.

CERTIFICATE OF COMPLIANCE:

Tornow Law Office, P.C., by and through R. Shawn Tornow, Appellants' attorney of record herein, submits the following:

The foregoing brief is 22-pages in length. It was typed in proportionately spaced twelve (12) point Times New Roman print style. The left-hand margin is 1.5 inches, while the right-hand margin is 1.0 inches. Said brief has been heretofore reviewed and referenced as containing 7,228 words and 37,652 characters.

Dated this 10th day of August, 2020.

/s/ R. Shawn Tornow
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Attorney for Appellants, Christenson & Robish

CERTIFICATE OF SERVICE:

Your undersigned, as counsel for Appellants in the above entitled matter, being an appeal from the state administrative agency, South Dakota Public Utilities Commission, Docket EL19-027, and the decision of such agency made and served April 6, 2020, hereby certifies that on the date indicated below, a true copy of the *Appellants' Brief* has been electronically filed with the Clerk of Courts, Deuel County, through the Odyssey File & Serve Program, in the (Grant/Codington County) consolidated case file of 19CIV20-000027, for further service on counsel for the Appellees and others, to wit:

Amanda M. Reiss, Special Assistant Attorney General:	amanda.reiss@state.sd.us
Kristen N. Edwards, Special Assistant Attorney General:	kristen.edwards@state.sd.us
Dana Van Beek Palmer, Lynn Jackson (Sioux Falls):	dpalmer@lynnjackson.com
Miles Schumacher, Lynn Jackson (Sioux Falls):	mschumacher@lynnjackson.com
Brian J. Murphy, Next Era Energy (Juno Beach):	brian.j.murphy@nee.com

In addition, Appellants' Brief is being served by e-mail this date as a courtesy on counsel for the other Invervenors in and as part of their parallel (Deuel County) appeal:

A.J. Swanson, Arvid J. Swanson, P.C., (Canton): aj@ajswanson.com

Finally, a scan/courtesy copy of Appellants' Brief has been served also this date by e-mail on:

Circuit Court Judge, Third Circuit, Dawn Elshere: dawn.elshere@ujs.state.sd.us

Dated at this 10th day of August, 2020.

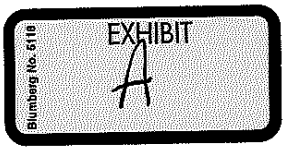
As respectfully submitted,

/s/ R. Shawn Tornow
R. Shawn Tornow, for Tornow Law Office, P.C.

Exhibit AC-18

Grant County Compiled Zoning Ordinances

01/25/2018



008727

10. Abandoned Turbines. The permittees shall advise the County of any turbines that are abandoned prior to termination of operation of the WES. The County may require the permittees to decommission any abandoned turbine.

11. Height from Ground Surface. The minimum height of blade tips, measured from ground surface when a blade is in fully vertical position, shall be twenty-five (25) feet.

12. Towers.

    a. Color and Finish. The finish of the exterior surface shall be non-reflective and non-glass.

    b. All towers shall be singular tubular design

13. Noise. Noise level shall not exceed 50 dBA, average A-weighted Sound pressure including constructive interference effects at the perimeter of the principal and accessory structures of existing off-site residences, businesses, and buildings owned and/or maintained by a governmental entity. [Ord. 2004-1, Rev. 2004-1G]

13. Permit Expiration. The permit shall become void if no substantial construction has been completed within two (2) years of issuance.

14. Required Information for Permit. [Ord. 2004-1, Rev. 2004-1G]

    a. Boundaries of the site proposed for WES and associated facilities on United States Geological Survey Map or other map as appropriate.

    b. Map of easements for WES.

    c. Affidavit attesting that necessary easement agreements with landowners have been obtained.

    d. Map of occupied residential structures, businesses, churches and buildings owned and/or maintained by a governmental entity.

    e. Preliminary map of sites for WES, access roads and collector and feeder lines. Final map of sites for WES, access roads and utility lines to be submitted sixty (60) days prior to construction.

    f. Proof of right-of-way easement for access to utility transmission lines and/or utility interconnection.

    g. Location of other WES in general area.

    h. Project-specific environmental concerns (e.g. native habitat, rare species, and migratory routes). This information shall be obtained by consulting with state and federal wildlife agencies. Evidence of such consultation shall be included in the application.

    i. Final haul road agreements to be submitted sixty (60) days prior to construction.

Filed: 8/10/2020 4:07 PM CST Deuel County, South Dakota 19CIV20-000027
- Page 1409 -

EXHIBIT A19-3

ORDINANCE 2016-01C

AN ORDINANCE AMENDING GRANT COUNTY ORDINANCE #2004-1, AN ORDINANCE ESTABLISHING ZONING REGULATIONS FOR GRANT COUNTY, SOUTH DAKOTA, AND PROVIDING FOR THE ADMINISTRATION, ENFORCEMENT, AND AMENDMENT THEREOF, IN ACCORDANCE WITH THE PROVISIONS OF CHAPTERS 11-2, 1967 SDCL, AND AMENDMENTS THEREOF, AND FOR THE REPEAL OF ALL RESOLUTIONS AND ORDINANCES IN CONFLICT THEREWITH

WHEREAS, the Grant County, South Dakota, Board of County Commissioners, hereinafter referred to as the Board of County Commissioners, deems it necessary, for the purpose of promoting the health, safety, and the general welfare of the County, to enact zoning regulations and to provide for its administration, and

WHEREAS, the Board of County Commissioners has appointed a County Planning Commission, hereinafter referred to as the Planning Commission, to recommend the district boundaries and to recommend appropriate regulations to be enforced therein, and

WHEREAS, the Planning Commission has divided Grant County into districts, and has established by reference to maps the boundaries of said districts for administration and interpretation; has provided for definitions and for amendments to this Ordinance; has provided for the enforcement; prescribed penalties for violation of provisions; has provided for building permits within the districts; has provided for invalidity of a part and for repeal of regulations in conflict herewith; and has prepared regulations pertaining to such districts in accordance with the county comprehensive plan and with the purpose to protect the tax base, to guide the physical development of the county, to encourage the distribution of population or mode of land utilization that will facilitate the economical and adequate provisions of transportation, roads, water supply, drainage, sanitation, education, recreation, or other public requirements, to conserve and develop natural resources, and

WHEREAS, the Planning Commission has given reasonable consideration, among other things, to the character of the districts and their peculiar suitability for particular uses, and

WHEREAS, the Planning Commission and Board of County Commissioners has given due public notice to a hearing relating to zoning districts, regulations, and restrictions, and has held such public hearings, and

WHEREAS, all requirements of SDCL 11-2, with regard to the preparation of these regulations and subsequent action of the Board of County Commissioners, has been met, and

WHEREAS, copies of said zoning regulations have been filed with the Grant County Auditor for public inspection and review during regular business hours, and

WHEREAS, all ordinances, or parts of regulations in conflict herewith are hereby expressly repealed;

THEREFORE BE IT ORDAINED that Ordinance **2016-01C** is hereby adopted by the Board of County Commissioners, Grant County, South Dakota.

Voting aye: Commissioners Buttke, Dummann, Mach, Stengel Voting nay: Commissioner Street

Adopted this 28th day of December, 2018.

Marty Buttke
Chairperson
Grant County Board of County Commissioners

ATTEST:
Karen Traphagen
Grant County Auditor

This ordinance shall become effective 20 days after publication of this notice in the official newspaper, thereby repealing all ordinances or parts thereof in conflict herewith unless a referendum in a timely manner is file.

First Reading: December 18, 2018
Second Reading: December 28, 2018
Adopted: December 28, 2018
Published: January 9, 2019
Effective: January 28, 2019

Published once for an approximate cost of _____.

Effective Jan. 2019

e. Failure to Decommission. If the WES facility owner or operator does not complete decommissioning, the Board may take such action as may be necessary to complete decommissioning, including requiring forfeiture of the bond. The entry into a participating landowner agreement shall constitute agreement and consent of the parties to the agreement, their respective heirs, successors, and assigns, that the Board may take such action as may be necessary to decommission a WES facility.

~~10.~~11Abandoned Turbines. The permittees shall advise the County of any turbines that are abandoned prior to termination of operation of the WES. The County may require the permittees to decommission any abandoned turbine.

~~11.~~12Height from Ground Surface. The minimum height of blade tips, measured from ground surface when a blade is in fully vertical position, shall be twenty-five (25) feet.

~~12.~~13Towers.

a. Color and Finish. The finish of the exterior surface shall be non-reflective and non-glass.

b. All towers shall be ~~singular~~ tubular design

~~13.~~14Noise. Noise level shall not exceed ~~50~~ 45 dBA, average A-weighted Sound pressure including constructive interference effects **measured twenty-five (25) feet from** ~~at~~ the perimeter of the ~~principal and accessory structures of~~ existing ~~off site~~ **non-participating** residences, businesses, and buildings owned and/or maintained by a governmental entity.

Noise level shall not exceed 50 dBA, average A-weighted Sound pressure including constructive interference effects measured twenty-five (25) feet from the perimeter of participating residences, businesses, and buildings owned and/or maintained by a governmental entity.

Noise level measurements shall be made with a sound level meter using the A-weighting scale, in accordance with standards promulgated by the American National Standards Institute. A L90 measurement shall be used and have a measurement period no less than ten (10) minutes unless otherwise specified by the Board of Adjustment.

~~14.~~15Permit Expiration. The permit shall become void if no substantial construction has ~~been completed~~ **commenced** within ~~two (2)~~ **three (3)** years of issuance~~.~~; **or if a State Permit from the South Dakota Public Utility Commission has not been issued within two (2) years of issuance of the permit.**

~~15.~~16Required Information for Permit.

a. Boundaries of the site proposed for WES and associated facilities on United States Geological Survey Map or other map as appropriate.

b. Map of easements for WES.

c. Affidavit attesting that necessary easement agreements with landowners have been obtained.

600 East Capitol Avenue | Pierre, SD 57501 P605.773.3361 F605.773.5683

SOUTH DAKOTA DEPARTMENT OF HEALTH
Office of the Secretary

December 5, 2019

RECEIVED
DEC 0 6 2019
SOUTH DAKOTA PUBLIC
UTILITIES COMMISSION

South Dakota Public Utilities Commission
ATTN: Amanda Reiss
Capitol Building, 1st Floor
500 East Capitol Avenue
Pierre, SD 57501

RE: PUC Docket EL19-027-Crowned Ridge Wind II

Dear Attorney Reiss:

The South Dakota Department of Health has been requested to comment on the potential health impacts associated with wind facilities. Consistent with our prior statement and based on the studies we have reviewed to date, the South Dakota Department of Health has not taken a formal position on the issue of wind turbines and human health. A number of state public health agencies have studied the issue, including the Massachusetts Department of Public Health[1] and the Minnesota Department of Health[2]. These studied generally conclude that there is insufficient evidence to establish a significant risk to human health. Annoyance and quality of life are the most common complaints associated with wind turbines, and the studies indicate that those issues may be minimized by incorporating best practices into the planning guidelines.

Sincerely,

Kim Malsam-Rysdon

Kim Malsam-Rysdon
Secretary of Health

1. http://www.mass.gov/eea/docs/dep/energy/wind/turbine-impact-study.pdf
2. www.health.state.mn.us/divs/eh/hazardous/topics/windturbines.pdf

EXHIBIT
Bluemberg No. 6118
13

007357

STATE OF SOUTH DAKOTA) :SS		IN CIRCUIT COURT
COUNTY OF DEUEL)		THIRD JUDICIAL CIRCUIT
In the Matter of PUC Docket EL 19-027, Application of Crowned Ridge Wind II, LLC for a Permit of a Wind Energy Facility in Deuel, Grant and Codington Counties	*	19CIV20-000027 (as combined by the Court)
AMBER CHRISTENSON, and ALLEN ROBISH, Appellants,	*	*APPELLANTS' CHRISTENSON and ROBISH'S REPLY BRIEF*
vs.	*	
SOUTH DAKOTA PUBLIC UTILITIES COMMISSION and CROWNED RIDGE WIND II, LLC, Appellees.	*	

Intervenors below and Appellants herein, Amber Christenson and Allen Robish from Codington County and Grant County, respectively, through undersigned counsel, hereby submit this Reply Brief in response to both Appellee Commission Staff's Response Brief as well as the Brief of Appellee Crowned Ridge Wind II.

REPLY ARGUMENT:

-STANDARD OF REVIEW-

Appellants continue to rely on their initial brief and authority as to this matter.

Issue 1. Appellee PUC's findings of fact were clearly erroneous and its corresponding conclusions of law amounted to reversible error under SDCL § 1-26-36, in part, since Applicant failed to meet its burden of proof and/or its burden of going forward as required by SDCL § 49-41B-22 and/or ARSD 20:10:01:15.01.

All parties agree that SDCL § 49-41B-22, provides for Applicant's minimum threshold burden of proof in such administrative hearing matters. Once again, *cf.*, ARSD 20:10:01:15.01 ("In any contested case proceeding, the… applicant… has the burden of going forward with presentation of evidence…")

In response to Appellee(s) note that, in part, Appellants have urged that Appellee CRW-II failed to meet its burden of proof insofar as complying with all requirements for such a wind farm's showing of compliance with applicable administrative rule requirements, Appellants continue to maintain that there was, in fact, demonstrable prejudicial error in this respect – for the same reasons under the more applicable administrative rule, ARSD 20:10:22:23. That is, along the lines of an initial scrivener-type error in this regard, Appellants point out that - under the broad umbrella issue as set forth in/under Issue 1 - for nearly all the same reasons and rationale, CRW-II within its application failed to include and prove by a preponderance of the evidence that it *identified and* analyzed the (adverse) effects the construction, operation, and maintenance of the proposed wind farm facility would have on the affected area as to: "[a] forecast of the impact on … solid waste management facilities … and other community and government facilities or services…" *See*, requirements specifically noted for wind farm facilities like that sought by CRW-II at ARSD 20:10:22:23(1).

Moreover, Intervenor/Appellants can and do still point to Appellee CRW-II's failure to meet its burden at hearing, through at least witness Mark Thompson as its Manager of wind engineering within the engineering and construction organization of NextEra Energy, insofar as his failure to provide evidence, let alone a preponderance of evidence, as to what was specifically *identified* and *analyzed* as well as South Dakota's required "forecast of impact" on or as related to the Watertown Regional Landfill. ARSD 20:10:22:23(1).[1]

---

[1] Contrary to Appellee PUC's unnecessarily sardonic comment at page 7 of its brief wherein it wrongly claimed that to require CRW-II to put on evidence about the wind farm's impact on solid waste management facilities, such as the Watertown Regional Landfill, would somehow be a "feat only a time-traveler could do" – instead, the PUC's own rules specifically require that applicants, like CRW-II, should have specifically identified, analyzed *and* forecasted the impact on such landfill. Clearly, as shown in the both the Application and the testimony of Thompson, Appellee CRW-II's burden of proof was in no way met by a preponderance of the evidence by such witness simply stating that "they [turbine blades and other project refuse] would be disposed of in a landfill…" Unfortunately for Appellants, however, that was improperly deemed to be enough by the PUC as it looked (again) to essentially rubber-stamp and side with the corporate interests of the Applicant Appellee over the future/forecasted environmental concerns and interests of the taxpaying citizens and neighbors residing in and around the adversely affected area, including their future access or prospective lack of access to the Watertown Regional Landfill and/or any other adversely affected (but similarly unaddressed) community and government facilities or services as related to such project.

In that regard, Appellant's continue to direct the Court's attention to the woefully deficient hearing testimony offered by Mr. Thompson in this regard:

> Q: ...So, at the end of life of this project there will be 396 blades and many more during the life of the project... So just at the end of [the project] life that will require a disposal of 9,980,575 pounds of refuse, or the shipping weight is 11,840,004 pounds of refuse. Not knowing if any of the blades are toxic at this point, which [you] don't believe they are according to you earlier, ... where is Crowned Ridge II intending to dump 10 to 12 million pounds? And that number would double if there was the – the other project would be at the same time. And I understand now that those are different projects. So we'll just talk about 10 to 12 million pounds of blade refuse. Where have you made plans to dump that much blade refuse? And that doesn't include any rebar, cement, anything else. Just the blade refuse.
>
> *Thompson:* So as it stands right now, you're correct. They would be disposed of in a landfill, pursuant to applicable laws. The plan – and I assume that you mean at the end of the life of the project.
>
> Q: Yes.
>
> *Thompson:* The plan as it stands now is to cut these blades up into pieces for transport and dispose of them in landfills. Now this is usually a contracted process. And the landfills could either be local or off-site or out of state. Given that we're over 20 years away, we think that there would be, you know, processes that are developed or put in place to *maybe* recycle some of these. So disposing of these blades in landfills I think is the worst-case scenario or I would say the last resort. So I think with the options that are *possibly under development*, you could see that the amount of refuse going to these landfills could be significantly less. ... As far as the weight and the amount of refuse, when you compare that to [some] landfill, it's relatively small for the amount. And, again, *we're hoping that at the end of the day or the end of life [of the project] we'll find a way to recycle these* Fiberglass blades. Or even reuse them.
>
> Q: How long have they been using Fiberglass blades in this industry? How many years do you think?
>
> *Thompson:* Oh my God. My first ever wind site that I went to in California ... they were Fiberglass blades there. And that site was built in the '80's. So, it's been a long time.
>
> Q: Okay. And they haven't found a way to recycle them as of yet, and that's, oh my gosh, 40 years. ...
>
> *Thompson:* Oh, *sometimes things change, really overnight sometimes.* ...
>
> [Emphasis added.]; AHT pgs. 185-187; AR pgs. 9030-9032; *see also*, AHT pg. 358.

Once again, under the legal requirements for Appellee CRW-II to apply and for Appellee PUC to approve or grant such wind farm permit, it was not/is not sufficient under ARSD 20:10:22:23 for the Applicant nor Commission to fail to put forward a meaningful plan as compared to a vague (and likely unrealistic) "hope" that "sometimes things change" which may possibly, potentially or, hopefully, lead to a viable and recognizable plan for a wind farm like this to reasonably identify, analyze and forecast the pending adverse impact(s) on the local area. As such, Appellants re-submit that Appellee CRW-II generally relaying that it "hopes" to try to either recycle at least *10-12 million pounds of project-related refuse* or dispose of the same in some landfill(s) somewhere, either in South Dakota or in some other state, did not comply with the specific rule requirement(s) in this regard. ARSD 20:10:22:23(1).

Similarly, and in light of their same reasoning and rationale, Appellants continue to submit that such a failure amounts to an error of law insofar as Appellee PUC's oversight in this regard failed to make Appellee CRW-II meet its burden of proof in this regard and/or to insure that the facility will comply with all applicable laws and rules or that, in this regard, the facility will not substantially impair the health, safety or welfare of the inhabitants, like Appellants. *See generally, In re Black Hills Power, Inc.*, 2016 S.D. 92, ¶¶9, 16, 889 NW2d 631, 634 and 636 (Question/issue as to meaning of administrative rule/regulatory language and whether Commission erred in finding that proponent had met its required burden of proof – where, in stark contrast to this case, the PUC took "a great deal of evidence" as related to the administrative rule in question). However, in the instant case, the above-referenced failure by Appellee CRW-II to carry its burden of proof as should have been required as to ARSD 20:10:22:23(1), in part, highlights that Findings of Fact Nos. 18 and/or 66 below are, at a minimum, clearly erroneous, to the direct prejudice of local inhabitants like Intervenors and Appellants herein. Furthermore, as outlined, Conclusion of Law No. 9 was erroneous and subject to reversal given Appellee CRW's failure to fully address/comply with ARSD 20:10:22:23(1). *See*, Exhibit C, as attached hereto and fully incorporated herewith by this reference.

Issue 1-A. Appellee Commission committed prejudicial error in violation of statutory provisions insofar as Appellee CRW-II admittedly failed to carry its burden of proof by its failure to establish compliance with all applicable laws and rules since it relied on an erroneous version of the Grant County Ordinance, not in effect at the time of its 2018 locally approved Conditional Use Permit ("CUP").

Appellants continue to rely on their previously submitted arguments and authorities in support of this issue. Appellants, however, specifically refute Appellee PUC's claim at page 8-9 of its brief as well as the same parroted claim by Appellee CRW-II at page 26-27 of its brief to the effect that "[e]ven if the Court were to find that the Commission erred in this issue, Appellants can show no prejudice." That is, the full extent of the record bears out in regard to this issue that, in fact, Jay Haley, on behalf of CRW-II, intentionally removed from his alleged (but inadequate and incomplete) sound study analysis nearly 200 receptors, which included all Grant County accessory structures from consideration of the so-called sound study relied on below. Therefore, any of Appellees estimated noise levels at or near Appellant Robish's Grant County property are wholly unsubstantiated with reliable and required sound data. Point being, without the necessary data being included in the so-called analysis, the unavoidable fact is that Appellee CRW-II, Appellee PUC and, even Appellants, do not know what the noise decibel level will be at Robish's property. Obviously then, in light of the lack of noise/sound-related data, Appellees could not and cannot be deemed to have met its burden of proof – under the controlling Grant County ordinance as required by law.

Issue 1-B. Appellee Commission committed error in violation of statutory provisions insofar as Applicant failed to meet the statutory requirements of SDCL § 49-41B-25.2 by and through its failure, at the time of the Commission's hearing on the merits of Appellee CRW-II's wind energy facility permit, of being equipped with - or even having applied for - the necessary and statutorily required aircraft detection lighting system (ADLS).

Appellants continue to rely on their previously submitted arguments and authorities in support of this issue.

Issue 2. Appellee Commission failed to receive and consider Appellee Crowned Ridge Wind II, LLC's complete application for a wind energy facility permit through

the time of the evidentiary hearing herein contrary to the requirements of South Dakota law, pursuant to SDCL 49-41B-22 (3), including the submission for review of a pre-construction sound or health study in each (or any) of the adversely affected counties.

Appellants continue to rely on their previously submitted arguments and authorities in support of this issue.

ORAL ARGUMENT – NOTICE OF HEARING:

Based upon recent scheduling discussions and an agreement with the Court, to any extent necessary, Appellants provide formal notice of Oral Argument to be held before the Circuit Court, Judge Elshere, on November 23, 2020, beginning at 1:00 pm and (by consolidation of appeal files and further agreement of the parties) in Clear Lake, Deuel County Courthouse at such time.

Dated this 8th day of October, 2020.

/s/ R. Shawn Tornow
R. Shawn Tornow, for
Tornow Law Office, P.C.
P.O. Box 90748
Sioux Falls, SD 57109-0748
Telephone: (605) 271-9006
Facsimile: (605) 271-9249
E-mail: rst.tlo@midconetwork.com
Attorney for Appellants, Christenson & Robish

CERTIFICATE OF SERVICE:

Your undersigned, as counsel for Appellants in the above entitled matter, being an appeal from the state administrative agency, South Dakota Public Utilities Commission, Docket EL19-027, and the decision of such agency made and served April 6, 2020, hereby certifies that on the date indicated below, a true copy of the *Appellants' Reply Brief* has been electronically filed with the Clerk of Courts, Deuel County, through the Odyssey File & Serve Program, in the (Grant/Codington County) consolidated case file of 19CIV20-000027, for further service on counsel for the Appellees and others, to wit:

Amanda M. Reiss, Special Assistant Attorney General:	amanda.reiss@state.sd.us
Kristen N. Edwards, Special Assistant Attorney General:	kristen.edwards@state.sd.us
Dana Van Beek Palmer, Lynn Jackson (Sioux Falls):	dpalmer@lynnjackson.com
Miles Schumacher, Lynn Jackson (Sioux Falls):	mschumacher@lynnjackson.com
Brian J. Murphy, Next Era Energy (Juno Beach):	brian.j.murphy@nee.com

In addition, *Appellants' Reply Brief* is being served by e-mail this date as a courtesy on counsel for the other Invervenors in their parallel appeal:

A.J. Swanson, Arvid J. Swanson, P.C., (Canton): aj@ajswanson.com

Finally, a copy of *Appellants' Reply Brief* has also been served on this date by e-mail on:

Circuit Court Judge, Third Circuit, Dawn Elshere: dawn.elshere@ujs.state.sd.us

Dated at this 8th day of October, 2020.

Submitted,

/s/ R. Shawn Tornow
R. Shawn Tornow, for Tornow Law Office, P.C.

Text Search

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20:10:22:23. Community impact. The applicant shall include an identification and analysis of the effects the construction, operation, and maintenance of the proposed facility will have on the anticipated affected area including the following:

(1) A forecast of the impact on commercial and industrial sectors, housing, land values, labor market, health facilities, energy, sewage and water, solid waste management facilities, fire protection, law enforcement, recreational facilities, schools, transportation facilities, and other community and government facilities or services;

(2) A forecast of the immediate and long-range impact of property and other taxes of the affected taxing jurisdictions;

(3) A forecast of the impact on agricultural production and uses;

(4) A forecast of the impact on population, income, occupational distribution, and integration and cohesion of communities;

(5) A forecast of the impact on transportation facilities;

(6) A forecast of the impact on landmarks and cultural resources of historic, religious, archaeological, scenic, natural, or other cultural significance. The information shall include the applicant's plans to coordinate with the local and state office of disaster services in the event of accidental release of contaminants from the proposed facility; and

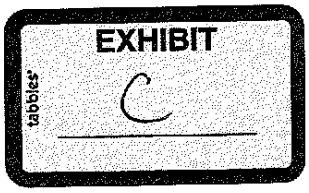
(7) An indication of means of ameliorating negative social impact of the facility development.

Source: 5 SDR 1, effective July 25, 1978; 12 SDR 151, 12 SDR 155, effective July 1, 1986.

General Authority:SDCL 49-41B-35.

Law Implemented:SDCL 49-41B-11(3), 49-41B-22.

Back to 20:10:22 | 20:10:22:23



STATE OF SOUTH DAKOTA	)	IN CIRCUIT COURT
	:SS	
COUNT OF DEUEL	)	THIRD JUDICIAL CIRCUIT

IN THE MATTER OF
ADMINISTRATIVE APPEAL GARRY
EHLEBRACHT, STEVEN GREBER,
MARY GREBER, RICHARD RALL,
AMY RALL, AND LARETTA KRANZ

And

AMBER KAYE CHRISTENSON AND
ALLEN ROBISH,

Appellants,

Vs.

CROWN RIDGE WIND, LLC AND
SOUTH DAKOTA PUBLIC UTILITIES
COMMISSION,

Appellees

19CIV20-21 and 20-27

MEMORANDUM OPINION

INTRODUCTION

This matter comes before the circuit court on appeal by Appellants Amber Christenson and Allen Robish (collectively "Christenson Appellants")[1], Appellants Garry Ehlebracht, Steven Greber, Mary Greber, Richard Rall, Amy Rall, and Laretta Kranz (collectively "Ehlebracht Appellants")[2], appealing the South Dakota Public Utilities Commission Staff's (the "Commission's" or "Staff's") Final Decision and Order Granting Permit to Construct Facility in EL 19-027 dated April 6, 2020. (AR 14230-14258), Final Decision and Order Granting Permit to Construct Facility, Permit Conditions, Notice of Entry (Permit)).[3]

[1] Christenson Appellants – 19CIV20-27
[2] Ehlebracht Appellants – 19CIV20-21.
[3] All citations to the administrative record are referenced as "AR".

STATEMENT OF JURISDICTION

The Christenson Appellants appeal from Commission's April 6, 2020, Final Decision and Order Granting Permit to Construct Facility; Permit Conditions; and Notice of Entry as related to its issuance of a wind energy facility permit to CRWII, pursuant to SDCL § 1-26-30, as provided for by SDCL § 49-41B-30. Appellants each timely and properly filed their respective Notice of Appeals on May 1, 2020, and May 5, 2020, in both Codington and Grant Counties, South Dakota. Thereafter, following Commission's unopposed motion to change venue (May 11, 2020), the circuit court entered its Order changing venue herein (May 19, 2020), pursuant to SDCL § 1-26-31.1. This Court ordered that the Intervenors files would be thereafter combined into this appellate file, 19CIV20-27.

The Ehlebracht Appellants appeal from the same April 6, 2020, Final Decision and Order, as related to its issuance of a wind energy facility permit to CRWII, pursuant to SDCL § 1-26-30, as provided for by SDCL § 49-41B-30. Appellants timely and filed their Notice of Appeal on April 29, 2020, in Deuel County, South Dakota.

STATEMENT OF FACTS

On July 9, 2019, Crowned Ridge Wind II, LLC[4] ("Applicant", "Crowned Ridge", or "CRWII") submitted its application for a facility permit for a 300.6-megawatt (MW) wind energy facility to consist of up to 132 wind turbines in Deuel, Grant, and Codington counties (the "Project").[5] (AR 14230-14258). Within its application, CRWII submitted written testimony from six witnesses.[6] (AR 1-1118, 3233-3254). The commercial operation date of the Project was estimated to be in the fourth quarter of 2020. (AR 11).

On July 11, 2019, the Staff issued the Notice of Application; Order for and Notice of Public Input Hearing; and a Notice for Opportunity to Apply for Party Status and established an intervention deadline of September 9, 2019. (AR 1122-1123).

On July 31, 2019, the Commission issued an order granting party status as Intervenors to the Christenson Appellants. (AR 1193-1194). On August 26, 2019, the Commission issued an order granting party status as Intervenors to the Ehlebracht Appellants. (AR 1478). On that same

[4] CRWII is a wholly-owned, indirect subsidiary of NextEra Energy Resources, LLC.
[5] Besides the turbines, the Project also includes access roads to the turbines and associated facilities, underground 34.5 kV electrical collector lines, underground fiber-optic cable, a 34.5-kV to 230 kV collection substations, two permanent meteorological towers, and an operations and maintenance facility.
[6] Jay Haley, Sarah Sappington, Mark Thompson, Tyler Wilhelm, Daryl Hart, and Richard Lampeter.

day, pursuant to SDCL §§ 49-41B-15 and 49-41B-16, the Commission held the public input meeting in Watertown, South Dakota. (AR 1122-1123, 1274-1477).

On September 20, 2019, CRWII submitted pre-filed Supplemental Testimonies and Exhibits.[7] (AR 2007-3223). On October 21, 2019, CRWII filed Corrected Direct Testimony of Witness Sarah Sappington. (AR 3233-3254). On December 9, 2019, Staff filed Pre-Filed Direct Testimony and Exhibits of five witnesses.[8] (AR 3356-4259). On December 12, 2019, several Ehlebracht Appellants[9] each filed Pre-Filed Direct Testimony in the form of Affidavits. (AR 4251-4264). On January 8, 2020, CRWII submitted Pre-Filed Rebuttal Testimony and Exhibits of seven witnesses[10] (with corrections filed on January 22, 2020, and January 24, 2020). (AR 4267-4338). On January 23, 2020, Staff submitted Pre-Filed Supplemental Testimony of David Lawrence. (AR 7054-7079).

On February 4-6, 2020, the Commission held an evidentiary hearing in Pierre, South Dakota. (AR 8844-13781). CRWII, Staff, and Appellants participated in the evidentiary hearing, presenting testimony, and cross-examining witnesses.[11] (AR 8844-13781). Appellants presented witness testimony,[12] but did not pre-file expert testimony. The Hearing Examiner presided over the hearing and each of the commissioners were present for the entirety of the hearing. On February 27 and March 2, 2020, the Parties filed Post-Hearing Briefs. (AR 13820-13919).

On March 17, 2020, the Commission met to consider whether to issue a facility permit for the Project. (AR 13984-14079). At the meeting, the Commission voted unanimously to issue a permit for the Project, subject to 49 conditions. (AR 13994-14079). On April 6, 2020, the Commission issued the Permit. (AR 14230-14258). The Permit includes conditions establishing maximum permissible sound levels and maximum levels of shadow flicker at residences near the Project.[13] (AR 14246-14258).

---

[7] These include Mark Thompson, Jay Haley, Tyler Wilhelm, Dr. Cristopher Ollson, Daryl Hart, Sarah Sappington, Michael MaRous, and Dr. Robert McCunney.

[8] These include David Hessler, Darren Kearney, Hilary Meyer Morey, David Lawrence, and Paige Olson.

[9] Amy Rall, Laretta Kranz, Garry Ehlebracht, and Steven Greber.

[10] These include Mark Thompson, Jay Haley, Tyler Wilhelm, Richard Lampeter, Sarah Sappington, Michael MaRous, and Dr. Christopher Ollson.

[11] Seventeen witnesses testified at this hearing.

[12] On December 12, 2019, Garry Ehlebracht, Steven Greber, Amy Rall, and Laretta Kranz submitted pre-filed direct testimony.

[13] Specifically, Permit Condition 26 limits sound levels emitted from the Project to 45 dBA for non-participating residences and 50 dBA for participating residences, as measured within 25 feet of a residence, with an allowance for a landowner to waive the condition. (AR 14251). Permit Condition 35 restricts Shadow Flicker at residences to 30 hours per year, with an allowance for an owner to waive the condition. (AR 14255).

On April 29, 2020, the Ehlebracht Appellants filed a Notice of Appeal of the Order in the Third Circuit Court located in Deuel County followed by a Statement of Issues on May 7, 2020. On May 1, 2020, the Christenson Appellants filed a Notice of Appeal followed by a Statement of Issues on May 11, 2020. With the consent of the parties, the appeals were consolidated in the Third Circuit Court in Deuel County.

On July 13, 2020, Ehlebracht Appellants filed their initial brief. On August 10, 2020, Christenson Appellants filed their initial brief. On September 11, 2020, Staff filed its Response Brief to Christenson Appellants. ("Staff's Brief to Christenson"). On September 23, 2020, CRWII submitted its Response Brief to both Christenson and Ehlebracht Appellants ("CRWII's Brief"). On September 24, 2020, Staff filed its Response Brief to Ehlebracht Appellants. ("Staff's Brief to Ehlebracht"). On October 8, 2020, Christenson Appellants submitted their Reply Brief to both Staff and CRWII. On October 13, 2020, Ehlebracht Appellants submitted their Reply Brief. On November 23, 2020, a hearing was held on the matter in Deuel County, South Dakota

STANDARD OF REVIEW

The regulatory agency here, the Public Utilities Commission, is governed by the Administrative Rules of South Dakota ("ARSD"), specifically ARSD Chapter 20:10:22 ("Energy Facility Siting Rules"). Decisions by the Commission may be appealed to the circuit court:

> Any party to a permit issuance proceeding aggrieved by the final decision of the Public Utilities Commission on an application for a permit, may obtain judicial review of that decision by filing a notice of appeal in circuit court. The review procedures shall be the same as that for contested cases under chapter 1-26.[14]

SDCL § 49-41B-30. Subsequently, SD Ch. 1-26 states the following review procedures:

> The court shall give great weight to the findings made and inferences drawn by an agency on questions of fact. The court may affirm the decision of the agency or remand the case for further proceedings. The court may reverse or modify the decision if substantial rights of the appellant have been prejudiced because the administrative findings, inferences, conclusions, or decisions are:
>
> (1) In violation of constitutional or statutory provisions;

[14] "The sections of Title 15 relating to practice and procedure in the circuit courts shall apply to procedure for taking and conducting appeals under this chapter so far as the same may be consistent and applicable, and unless a different provision is specifically made by this chapter or by the statute allowing such appeal." SDCL § 1-26-32.1; *see also* SDCL § 15-6-81(c) ("SDCL Ch. 15-6 does not supersede the provisions of statutes relating to appeal to the circuit courts.").

> (2) In excess of the statutory authority of the agency;
> (3) Made upon unlawful procedure;
> (4) Affected by other error of law;
> (5) Clearly erroneous in light of the entire evidence in the record; or
> (6) Arbitrary or capricious or characterized by abuse of discretion or clearly unwarranted exercise of discretion. . ..

SDCL § 1-26-36; *see also In re Otter Tail Power Co. ex rel. Big Stone II*, 2008 S.D. 5, ¶ 26, 744 N.W.2d 594, 602.

The agency's factual findings are reviewed under the clearly erroneous standard. *Id.* (citing SDCL § 1-26-36(5)). A decision is clearly erroneous if, after reviewing the entire record, the reviewing court is left with a definite and firm conviction that a mistake has been made. *Steinmetz v. State, DOC Star Academy*, 2008 S.D. 87, ¶ 6, 756 N.W.2d 392, 395 (internal citations omitted). It is well-settled that a court will not weigh the evidence or substitute its judgment for that of the Commission, rather, it is the court's function to determine whether there was any substantial evidence in support of the Commission's conclusion or finding. *See, e.g., Application of Svoboda*, 54 N.W.2d 325, 327 (S.D. 1952) (citing *Application of Dakota Transportation of Sioux Falls*, 291 N.W. 589 (S.D. 1940)).

Regarding questions of fact, the court affords great weight to the findings made and inferences drawn by an agency. *See* SDCL § 1-26-36. The agency's decision may be affirmed or remanded but cannot be reversed or modified absent a showing of prejudice. *Anderson*, 2019 S.D. 11, ¶ 10, 924 N.W.2d at 149 (citing SDCL § 1-26-36) (emphasis added). Even if the court finds the Commission abused its discretion, the Commission's decision may not be overturned unless the court also concludes that the abuse of discretion had prejudicial effect.[15] *Sorensen*, 2015 S.D. 88, ¶ 20, 871 N.W.2d at 856 (emphasis added).

Questions of law are reviewed de novo on appeal from an administrative agency's decision. *Anderson v. South Dakota Retirement System*, 2019 S.D. 11, ¶ 10, 924 N.W.2d 146, 149 (citing *Dakota Trailer Mfg., Inc. v. United Fire & Cas. Co.*, 2015 S.D. 55, ¶ 11, 866 N.W.2d 545, 548) (emphasis added). Matters of reviewable discretion are reviewed for abuse. *Id.* (citing SDCL § 1-

[15] A reviewing court will reverse an administrative agency decision when the substantial rights of the appellant have been prejudiced because the administrative findings, inferences, conclusions or decisions are affected by error of law, are clearly erroneous in light of the entire evidence in the record, or are arbitrary and capricious, or are characterized by abuse of discretion, or are clearly an unwarranted exercise of discretion. SDCL § 1-26-36; *In re One-time Special Underground Assessment by Northern States Power Company in Sioux Falls*, 2001 S.D. 63, ¶ 8, 628 N.W.2d 332, 334. *See also Wise v. Brooks Const. Services*, 2006 S.D. 80, ¶ 16, 721 N.W.2d 461, 466; *Apland v. Butte County*, 2006 S.D. 53, ¶ 14, 716 N.W.2d 787, 791.

26-36(6)) (emphasis added). "An agency's action is arbitrary, capricious or an abuse of discretion only when it is unsupported by substantial evidence and is unreasonable and arbitrary." *In re Midwest Motor Express*, 431 N.W.2d 160, 162 (S.D. 1988) (citing *Application of Dakota Transportation of Sioux Falls*, 291 N.W. 589 (S.D. 1940)) (emphasis added); *see also Sorensen v. Harbor Bar, LLC*, 2015 S.D. 88, ¶ 20, 871 N.W.2d 851, 856 ("An abuse of discretion 'is a fundamental error of judgment, a choice outside the range of permissible choices, a decision, which, on full consideration, is arbitrary or unreasonable.'") (internal quotation omitted)). "Substantial evidence" is defined as "such relevant and competent evidence as a reasonable mind might accept as being sufficiently adequate to support a conclusion." SDCL § 1-26-1(9).

Here, Appellants challenge the agency's conclusion that the CRWII wind facility will not harm the social and economic condition of inhabitants in the wind energy facility siting area and that the facility will not substantially impair the health, safety, or welfare of the inhabitants within the siting area as clearly erroneous based upon the record in its entirety.[16] This presents a mixed question of fact and law, reviewable de novo. *Johnson v. Light*, 2006 S.D. 88, ¶ 10, 723 N.W.2d 125, 127 ("Mixed questions of law and fact that require the reviewing Court to apply a legal standard are reviewable de novo.") (quoting *State ex rel. Bennett v. Peterson*, 2003 S.D. 16, ¶ 13, 657 N.W.2d 698, 701)).

PART I: CHRISTENSON APPELLANTS

Burden of Proof

South Dakota law requires the following:

> The applicant has the burden of proof to establish by a preponderance of the evidence that:
> (1) The proposed facility will comply with all applicable laws and rules; [and]
> . . .
> (3) The facility will not substantially impair the health, safety or welfare of the inhabitants. . ..

SDCL § 49-41B-22. Furthermore, the ARSD also places the burden upon the applicant:

> In any contested case proceeding, the complainant, counterclaimant, applicant, or petitioner has the burden of going forward with presentation of evidence unless otherwise ordered by the commission. The complainant, counterclaimant,

[16] An applicant for a permit is required to establish that the facility "will not substantially impair the health, safety or welfare of the inhabitants" in accordance with SDCL § 49-41B-22(3).

> applicant, or petitioner has the burden of proof as to factual allegations which form the basis of the complaint, counterclaim, application, or petition. In a complaint proceeding, the respondent has the burden of proof with respect to affirmative defenses.

ARSD 20:10:01:15.01 ("Burden in contested case proceeding").

Christenson Appellants assert that the PUC's findings of fact were clearly erroneous, and its corresponding conclusions of law amounted to reversible error under SDCL § 1-26-36, in part, since Applicant failed to meet its burden of proof and/or its burden of going forward as required by SDCL § 49-41B-22 and/or ARSD 20:10:01:15.01. Under this burden of proof issue, the Christenson appellants assert several issues where the burden of proof failed. The court will address them below.

Solid Waste

Christenson Appellants initially raised the issue of "solid or radioactive waste" in their first brief. Christenson Brief, at 9-11. However, as Appellees PUC and CRWII argued in their responsive briefs, Christenson argued the wrong ARSD, as that did not apply to wind energy facilities, such as this Project.[17] The applicable ARSD in this case is the following:

> The applicant shall include an identification and analysis of the effects the construction, operation, and maintenance of the proposed facility will have on the anticipated affected area including the following:
>
> (1) A forecast of the impact on commercial and industrial sectors, . . . solid waste management facilities, . . . and other community and government facilities or services. . ..

ARSD 20:10:22:23 ("Community impact"). Christenson acknowledges the previous error, and then argues this "community impact" regulation in their reply brief. Christenson Reply Brief, at 2-4. Although the incorrect statute was cited, the issue of "solid waste" was argued initially.

[17] Christenson initially argued that CRWII did not comply with ARSD 20:10:22:31, which states "The applicant shall provide information concerning the generation, treatment, storage, transport, and disposal of solid or radioactive waste generated by the proposed facility and evidence that all disposal of the waste will comply with the standards and regulations of any federal or state agency having jurisdiction. . .." However, as PUC argued, ARSD 20:10:22:05 states that ARSD 20:10:22:26 to 20:10:22:33, inclusive, apply for a permit for an *energy conversion* facility. *See* SDCL § 49-41B-2(6) for the definition of an energy conversion facility. Rather, this regulation states that ARSD 20:10:22:33.01 and 20:10:22:33.02 apply for a permit for a *wind energy* facility.

Christenson's argument concentrates upon the issue of identifying, analyzing, and forecasting the end of life disposal of the Project's used blades, concrete, and other refuse. The Staff states that the Commission heard evidence on the future disposal of wind turbine blades and received assurance from CRWII that it would comply with the applicable laws for disposal, which could occur decades into the future. CRWII stated at the November 2020 hearing that the statute is limited to the construction, operation, and maintenance of the facility, and that there is nothing in it regarding the decommissioning or tearing down.

Appellees' arguments are more persuasive here. First, the testimonies provided repeated assurances that the Project would follow the applicable laws. Furthermore, in the Application, this ARSD was specifically addressed, and stated in part, "Construction and operation of the Project . . . is not anticipated to have significant short- or long-term effects on . . . solid waste management facilities." Ex. A1, page 93.

Second, the argument of "disposal" here appears moot. While the incorrect, previously cited ARSD 20:10:22:31 requires proper disposal, the correct, applicable ARSD 20:10:22:23 does not mention the words "disposal" or "decommissioning" at all. It specifically refers to a facility's "construction, operation, and maintenance." Christenson's argument here concerns the *end of life* of the Project, and not the *construction, operation, and maintenance* of the Project. This ARSD does not require specific plans for the *disposal* of blades and refuse; therefore, the Commission did not violate SDCL § 49-41B-22, ARSD 20:10:01:15.01, or ARSD 20:10:22:31.

Thus, regarding the issue of "solid waste," the Commission met its burden of proof and did not err when granting a permit to CRWII. Furthermore, because the Commission did not err in its decision, the question of prejudice need not be discussed for "solid waste."

Compliance with Grant County Ordinance

Christenson Appellants argue the following:

> Appellee PUC wrongly and prejudicially entered Finding of Fact No. 18 (FN. 24) in erroneously finding, in essence, that Appellee CRWII will be in compliance with applicable laws, including the Grant County Ordinance since, directly contrary to testimony by Jay Haley, that Appellee CRWII "complies with both versions of the Grant County Ordinance – the one in effect at the time of the approval of the Project by Grant County, and the one made effective shortly after the December 2018 CUP vote."

Christenson Brief, at 3. In the record, FOF 18 states the following:

> FOF 18. The evidence submitted by [CRWII] demonstrates that the Project will comply with applicable laws and rules.[18] Applicant committed that it will obtain all governmental permits which reasonably may be required by any township, county, state agency, federal agency, or any other governmental unit for the construction and operation activity of the Project prior to engaging in the particular activity covered by that permit.[19]

PUC Staff states that the Commission properly determined that the Project will comply with all applicable laws, specifically as it relates to compliance with the Grant County ordinance. Additionally, CRWII states that the record shows CRWII's commitment and ability to comply with the old and new Grant Country Sound Ordinance.

CRWII applied for its CUP for Grant County on September 17, 2018. On December 17, 2018, Grant County approved this CUP. The original ordinance was as follows:

> 13. Noise. Noise level shall not exceed 50 dBA, average A-weighted Sound pressure including constructive interference effects at the perimeter of the principal and accessory structures of existing off-site residences, businesses, and buildings owned and/or maintained by a governmental entity.

On December 28, 2018, the new ordinance was adopted, and on January 28, 2019, it became effective. The new ordinance was as follows:

> 14. Noise. Noise level shall not exceed 45 dBA, average A-weighted Sound pressure including constructive interference effects measured twenty-five (25) feet from the perimeter of the existing non-participating residences, businesses, and buildings owned and/or maintained by a governmental entity.

In addition to FOF 18, Christenson Appellants argue that FOF 46 is also clearly erroneous:

> 46. The record demonstrates that Applicant has appropriately minimized the sound level produced from the Project to the following: (1) no more than 45 dBA at any

[18] FOF 18 (Footnote 23): Ex. A1 at 72-76, 111-112 (Application) and Ex. A5 at 8-11 (Wilhelm Direct Testimony).
[19] FOF 18 (Footnote 24): At the evidentiary hearing, pro se Intervenor Christenson questioned whether Applicant was in compliance with the Grant County Ordinance in effect at the time Grant County voted to approve the Project or the Ordinance that was made effective after the County's vote to approve the Project. Applicant testified that Grant County has indicated it intends to apply the Ordinance made effective shortly after approval of the CUP for the Project. Evid. Hrg. Tr. at 47-49 (Wilhelm) (February 4, 2020). The record in this proceeding shows that Crowned Ridge Wind II complies with both versions of the Grant County Ordinance - the one in effect at the time of the approval of the Project by Grant County, and the one made effective shortly after the vote. Evid. Hrg. Tr. at 217-218, 233-234, 237-239 (Haley) (February 4, 2020); Exs. A2; A14; A21 (Haley Direct, Supplemental and Rebuttal Testimony); Ex. A14-1 through Ex. A14-4 (Supplemental Testimony Sound and Shadow Flicker Studies); Ex. A21-1 through Ex. A21-3; and Ex. A28 and Ex. 29 (Rebuttal Testimony Sound and Shadow Flicker Results); and Ex. AC-19. Therefore, the record shows that Crowned Ridge Wind II will be in compliance with applicable laws, including the Grant County Ordinance.

> non-participants' residence and (2) no more than 50 dBA at any participants' residence. . ..[20]

Christenson Brief, at 16. Christenson Appellants argue that Conclusion of Law 9, 13, and 15 are in error:

> COL 9. In the event the Project's contracted life is not extended, the record demonstrates that Applicant has appropriate and reasonable plans for decommissioning. The Project will be decommissioned in accordance with applicable state and county regulations. Applicant has agreed to Permit Condition No. 33 for purposes of decommissioning the Project.
>
> COL 13. Applicant must comply with the applicable requirements in the Deuel County, Grant County, and Codington County ordinances.
>
> COL 15. Based on the preponderance of the evidence presented to the Commission, the Commission concludes that all the requirements of SDCL § 49-41B-22 have been satisfied.

This court will not weigh the evidence or substitute its judgment for that of the PUC. Rather, it is this court's function to determine whether there was any substantial evidence in support of the PUC's conclusion or finding. The PUC found that CRWII followed the Grant County ordinance, and the findings, cited above, are supported by substantial evidence of reports, testimonies, and studies. CRWII held a valid CUP from Grant County. (AR 14235-14236). Furthermore, the Commission concluded the following:

> The evidence submitted by [CRWII] demonstrates that the Project will comply with applicable laws and rules. Applicant committed that it will obtain all governmental permits which reasonably may be required by any township, county, state agency, federal agency, or any other governmental unit for the construction and operation activity of the Project prior to engaging in the particular activity covered by that permit. The record demonstrates that construction and operation of the Project, subject to the Permit Conditions, meets all applicable requirements of SDCL Chapter 49-41B and ARSD Chapter 20:10:22.

Id. (AR 14235 footnotes citing record evidence omitted).

Christenson cites *In re Conditional Use Permit Granted to Van Zanten*, 1999 S.D. 79, 598 N.W.2d 861, and PUC counters that that case is inapplicable, as its facts and laws relate to a county

[20] FOF 46 (Footnote 98): Exs. A2; A14; A21 (Haley Direct, Supplemental and Rebuttal Testimony); Ex. A1-I (Sound Modeling Report); Ex. A14-1 through Ex. A14-3 (Supplemental Testimony Sound Studies); Ex. A21-1; Ex. A21-3; Ex. A28, and Ex. 29 (Updated Rebuttal Sound Results).

zoning ordinance. This is an appeal from an *agency* decision, and not an appeal from a *county* decision. Because this issue is a *county* issue, and currently ongoing in case file 25CIV20-10, the Court will not address the validity of the CUP itself in this case.

Lastly, both Staff and CRWII argue in the alternative that no Appellants are prejudiced by these sound regulations of the Grant County ordinance. The Court refuses to weigh into this argument as it is unnecessary. Because the Commission did not err in its decision, the question of prejudice need not be discussed for this issue.

Aircraft Detection Lighting System (ADLS)

The Aircraft Detection Lighting System (ADLS) statute, effective on July 1, 2019, states the following:

> For any wind energy facility that receives a permit under this chapter after July 1, 2019, the facility shall be equipped with an [ADLS] that meets the requirements set forth by the Federal Aviation Administration [FAA]. . ..

SDCL § 49-41B-25.2 (in pertinent part). On April 6, 2020, the Commission issued its permit to CRWII (AR 14230-14258); therefore, this ADLS requirement applies to this permit.

Christenson Appellants argue the following:

> Appellee Commission committed error in violation of statutory provisions insofar as Applicant [CRWII] failed to meet the statutory requirements of SDCL § 49-41B-25.2 by and through its failure, at the time of the Commission's hearing on the merits of Appellee CRWII's wind energy facility permit, of being equipped with – or even having applied for – the necessary and statutorily required aircraft detection lighting system (ADLS).

Christenson Brief, at 16. Christenson argues that CRWII failed to even apply for ADLS by the time of the administrative hearing seeking approval (February 4-6, 2020), and that the Commission clearly erred in its Findings of Fact 18,[21] 30,[22] and 66.[23]

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[21] *See* Issue 1A: Compliance with Grant County Ordinance, *supra*.

[22] FOF 30. Applicant will install and use lighting required by the [FAA]. Applicant will equip the Project with a FAA-approved [ADLS] to minimize visual impact of the Project starting with the commercial operation date and for the life of the Project, subject to normal maintenance and forced outages.

[23] FOF 66. The Commission finds that the Project, if constructed in accordance with the Permit Conditions of this decision, will comply with all applicable laws and rules, including all requirements of SDCL Chapter 49-41B and ARSD Chapter 20:10:22.

The Court finds Christenson's argument to be misguided. The plain reading of the statute requires that CRWII, the applicant wind energy facility, which receives a permit, shall be equipped with an ADLS in compliance with the FAA. Christenson appears to argue that CRWII was not equipped with ADLS at the time of the permit, which is a clear misunderstanding of the statute.

Or, alternatively, Christenson argues that CRWII had no plan to install ADLS in its Application for its facility permit (submitted July 9, 2019) at the time of the Commission's Hearing (February 4-6, 2020). This would also be a misunderstanding of the statute, which says a facility that "receives a permit . . . shall be equipped" with an ADLS. Nothing in the statute requires the "merits" of the Applicant's permit being equipped or applied for an ADLS.

Furthermore, this point is moot. Findings of Fact 30 and 51, and Permit Condition 34, all state that CRWII will install and use ADLS in compliance with the FAA. CRWII points to Permit Condition 1 (Applicant will obtain all governmental permits which reasonably may be required by any governmental unit for construction and operation activity of the Project prior to operation) and Permit Condition 34 (Applicant shall apply to the FAA for approval to utilize an ADLS and allow enough time for a FAA determination and system construction prior to operation). FOF 51 requires the Applicant to illuminate the wind turbines as required by the FAA.

Therefore, regarding the ADLS, the Commission did not err when granting a permit to CRWII. Furthermore, because the Commission did not err in its decision, the question of prejudice need not be discussed for ADLS.

Sound and Air Quality Studies

A. Sound Study

Christenson Appellants argue the following:

> Appellee Commission failed to receive and consider Appellee [CRWII's] complete application for a wind energy facility permit through the time of the evidentiary hearing herein contrary to the requirements of South Dakota law, pursuant to SDCL § 49-41B-22(3), including the submission for review of a pre-construction sound or health study in each (or any) of the adversely affected counties.

Christenson Brief, at 18. Staff responds that Applicant met is burden of proof with respect to SDCL § 49-41B-22(3). CRWII responds that it carried its burden that the Project will not substantially impair the health or welfare of inhabitants.

South Dakota law states that the "applicant has the burden of proof to establish by a preponderance of the evidence that . . . the facility will not substantially impair the health, safety or welfare of the inhabitants. . .." SDCL § 49-41B-22(3).

Christenson Appellant states that "[a]lthough four (4) proposed experts appeared and gave testimony and evidence at the evidentiary hearing for Appellee CRWII, no infrasound or low frequency sound study was requested to be conducted, nor any study submitted to Appellee PUC for evidentiary analysis and review." Christenson Brief, at 19.

Staff responds that (1) there is no legislative directive as to how an applicant must establish that a project will not substantially impair the health and welfare of the community; and (2) there is no rule that mandates how the applicant must satisfy the burden. Staff's Brief, at 11. Staff then states that the Commission found sufficient evidence in the record to demonstrate that "the sound from the Project would not substantially impair the health and welfare of the community." *Id.*, (Findings of Fact 68, AR 14244). This finding was supported by substantial evidence in the record, including "expert testimony from both health experts and acousticians, with no corresponding intervenor testimony to contradict these experts." *Id.*

Again, the statute, SDCL § 49-41B-22, does not require an act that Appellants claim exists. Rather, it simply states that CRWII must prove its facility will not substantially impair the health, safety or welfare of the inhabitants. As Staff argued, there are no specific mandates on completing this task.

Therefore, regarding the sound study, the Commission did not err when granting a permit to CRWII. Furthermore, because the Commission did not err in its decision, the question of prejudice need not be discussed for the sound study.

B. Air Quality Study

Christenson Appellants argue that "contrary to the regulatory requirements of ARSD 20:10:22:21, no air quality study was requested nor submitted to Appellee PUC for review." Christenson's Brief, at 20. This ARSD states the following:

> The applicant shall provide evidence that the proposed facility will comply with all air quality standards and regulations of any federal or state agency having jurisdiction and any variances permitted.

ARSD 20:10:22:21.

CRWII argues that in its Application, it explained in detail that the Project's operations did not implicate air quality standards. CRWII's Brief, at 30. (AR 99-100). The Commission concluded "The evidence further demonstrates that there are no anticipated material impacts to existing air and water quality, and the Project will comply with applicable air and water quality standards and regulations." *Id.*; (AR 14237).

This ARSD does not require that an air quality study be submitted, only that it would comply with standards and regulations. Therefore, regarding the air quality study, the Commission did not err when granting a permit to CRWII. Furthermore, because the Commission did not err in its decision, the question of prejudice need not be discussed for the air quality study.

As to each of these issues raised the Commissions finding that the applicant has met its burden of proof as to the applicable rules and laws and that the Project will not negatively impact the health and welfare of the inhabitants was not clearly erroneous and is affirmed by this court.

PART II: EHLEBRACHT APPELLANTS

This court's role, in this procedural appeal, is to determine whether the regulatory agency was clearly erroneous or not in its findings. This court will not address the arguments of easements or takings, the histories of regulatory limitations of shadow flicker borrowed from German standards, or whether this is a discharge of light in accordance with SDCL § 43-13-2(8). This is not the proper place nor time for these arguments. This court does not have the jurisdiction to hear these argument, rendering them moot in this appeal. The court does however, address the following issues raised by Ehlebracht Appellants.

Minimal Adverse Effect

Ehlebracht Appellants argue the following issue:

> Whether the Agency, authorized to promulgate rules concerning wind energy conversion facilities (SDCL § 49-41B-35) but adopting no relevant rules as to the meaning of "minimal adverse effect," may proceed on a case-by-case or *ad hoc* basis to permit a burden of "effects" upon both citizens and their properties under

> variable regulatory limits developed by others, including those interested in the promotion of wind development.

Ehlebracht Brief, at 2, 12. This South Dakota statute states the following:

> To implement the provisions of this chapter regarding facilities, the commission shall promulgate rules pursuant to chapter 1-26. Rules may be adopted by the commission:
>
> (1) To establish the information requirements and procedures that every utility must follow when filing plans with the commission regarding its proposed and existing facilities;
> (2) To establish procedures for utilities to follow when filing an application for a permit to construct a facility, and the information required to be included in the application; and
> (3) To require bonds, guarantees, insurance, or other requirements to provide funding for the decommissioning and removal of a solar or wind energy facility.

SDCL § 49-41B-35 ("Promulgation of rules").

Ehlebracht's argument of the *ad hoc* basis is that the Commission has permitted more stringent standards for other wind energy facilities, specifically Prevailing Wind Park,[24] than others, such as the CRWII Project here. These standards include "effects" such as noise and shadow flicker.

Staff argues that the Commission is not required to promulgate rules defining "minimal adverse effects," but rather is permitted this rulemaking authority. Staff's Brief to Ehlebracht, at 7. Furthermore, Staff argues that the state statute instructs the Commission to review permit applications on case-by-case or ad hoc bases.[25] CRWII likewise makes the same argument, the Commission has discretion, not the legal obligation to adopt rules. CRWII's Brief, at 8-9.

The state statutes and ARSD clearly permit the Commission to adopt rules and procedures. Ehlebracht's argument here focuses on requiring the Commission to adopt a standard that applies to all windfarms. Currently, the laws require that the Commission defers to local county ordinances. As evidenced within this case itself, there are three counties (Codington, Deuel, and Gran), each with their own separate standards.

[24] This wind energy facility is in Bon Homme, Yankton, and Charles Mix counties.
[25] *See* SDCL §§ 49-41B-11 through 49-41B-25, inclusive.

Therefore, regarding this issue, the Commission did not err when granting a permit to CRWII. Furthermore, because the Commission did not err in its decision, the question of prejudice need not be discussed for this issue.[26]

Issue 2: Easements and Servitudes

Ehlebracht Appellants argue the following issue:

> Whether SDCL § 43-13-2, "Easements and Servitudes," applies to the land and property interests of Appellants, bearing on the Applicant's claimed right to hereafter discharge adulterated light (in the form of Shadow Flicker, along with other Effects) onto and into the dwellings and lands of appellants, given that the Agency's Decision offers or affords approval of such discharge but without the required consent of the fee owner.

Ehlebracht Brief, at 18. This South Dakota statute states the following:

> The following land burdens or servitudes upon land may be attached to other land as incidents or appurtenances, and are called easements:
> . . .
> (8) The right of receiving air, light, or heat from or over, or discharging the same upon or over land . . .

SDCL § 43-13-2(8).

Ehlebracht Appellants argue that the right to discharge light upon or over land is an affirmative easement. Ehlebracht Brief, at 21. Staff argues that the "Commission is not a court of general jurisdiction and has no authority to assess property rights, nor waive any underlying law, ordinance or regulation that otherwise applies to the construction of wind turbines." Staff's Ehlebracht Brief, at 12. CRWII argues that this statute "is wholly outside the statute the Legislature enacted for the Commission to administer." CRWII's Brief, at 20; *Northwestern Bell Tel. Co. v. Chicago & N.W. Transp.*, 245 N.W.2d 639, 641 (S.D. 1976) ("The Public Utilities Commission is an administrative body authorized to find and determine facts, upon which the statutes then operate. It is not a court and exercises no judicial functions").

[26] Ehlebracht Appellants also casually state that the equal protection laws are violated (Art. 6, 18, S.D. Const.; 14th Amendment, U.S. Const.). The Court finds this argument without merit, as it does not provide evidence aside for claims that one county ordinance has a more stringent ordinance than that of another county on the other side of the state.

Here, the Court agrees with the appellees that this issue is outside its jurisdiction. This court's role, in this procedural appeal, is to determine whether the regulatory agency was clearly erroneous or not in its findings. Therefore, regarding this issue, the Court will not weigh into the question of easements.

Taking and *Per Se* Nuisance

Ehlebracht Appellants argue the following issue:

> Whether the exercise of the Agency's permitting authority under Chapter 49-41B, SDCL, giving approval for the casting of Effects over the homes and lands of Non-Participants, but without an easement being conferred in favor of Applicant and without the provisions of SDCL § 21-35-31 having been invoked, is a taking of Appellants' private property interests?

Ehlebracht Brief, at 27. Ehlebracht Appellants state that they will be subject to the Effects given off by the Project (such as noise and shadow flicker). Without the appellants granting permission, this would in effect "accomplish[] a *taking* of the property interests of these Appellants." *Id.*, at 29.

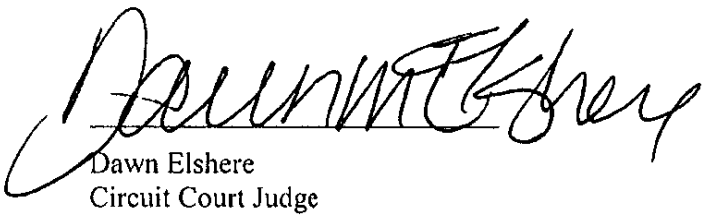
Staff argues that the Commission's order granting CRWII a permit to construct a wind energy facility is not a taking or a *per se* nuisance. Regarding a "taking," Ehlebracht fails each of the four theories under South Dakota case law. *Benson v. State*, 710 N.W.2d 131, 149 (S.D. 2006) (a regulatory physical taking; a permanent physical invasion of property; depriving owner of all economically beneficial uses of property; and a land-use exaction violating standards). Regarding *per se* nuisance, Staff argues that Ehlebracht's claim is not ripe, nor do the appellants submit sufficient evidence for the court to determine a taking has occurred. *See Boever, v. South Dakota Bd. of Accountancy*, 526 N.W.2d 747 (S.D. 1995). CRWII argues that the per se nuisance is insufficient to create a ripe controversy. *See Boever*, 526 N.W.2d at 750.

The Court here agrees with Appellees' arguments. Ehlebracht has not established that noise and shadow flicker is a taking under South Dakota law, and the per se nuisance is not ripe for controversy. Therefore, the court will not address either of these issues.

CONCLUSION

Considering the Commission's findings, inferences, and conclusions, the Commission was not clearly erroneous and did not abuse its discretion in granting the permit to Crowned Ridge II. The Commission's decision was supported by extensive findings and conclusions that were supported by an exhaustive and complete administrative record. Therefore, the court affirms the Commission's decision and denies all of issues raised by each group of Appellants (Christensen and Ehlebracht). Counsel for the Appellee is directed to prepare an Order affirming the Decision of the Public Utilities Commission.

BY THE COURT:



Dawn Elshere
Circuit Court Judge
Third Judicial Circuit

STATE OF SOUTH DAKOTA) : SS COUNTY OF DEUEL)	IN CIRCUIT COURT THIRD JUDICIAL CIRCUIT
IN THE MATTER OF ADMINISTRATIVE APPEAL GARRY EHLEBRACHT, STEVEN GREBER, MARY GREBER, RICHARD RALL, AMY RALL AND LARETTA KRANZ and AMBER KAYE CHRISTENSON AND ALLEN ROBISH, Appellants, v. CROWNED RIDGE WIND, LLC AND SOUTH DAKOTA PUBLIC UTILITIES COMMISSION, Appellees.	19CIV20-000021, and 19CIV20-000027 **ORDER**

Appellants Garry Ehlebracht, Steven Greber, Mary Greber, Richard Rall, Amy Rall, and Laretta Kranz having appealed from the South Dakota Public Utilities Commission's Final Decision and Order Granting Permit to Construct Facility in EL 19-027, and Appellants Amber Christenson and Allen Robish having separately appealed as a part of their separate issues in both Codington County and Grant County, and with the appeals being thereafter combined for purposes of judicial economy, and with all parties having appeared by and through their respective counsel of record, and the Court having considered the Briefs submitted by all parties as well as all arguments of counsel, and the Court having

Filed on: 03/12/2021 DEUEL County, South Dakota 19CIV20-000027

issued its Memorandum Opinion on February 26, 2021, which is attached as Exhibit A and incorporated herein by this reference, it is hereby,

ORDERED, ADJUDGED and DECREED that the Decision and Order of the South Dakota Public Utilities Commission, entered April 6, 2020, is affirmed.

Signed: 3/12/2021 10:56:19 AM

Dated this _____ day of March, 2021.

BY THE COURT:

Honorable Dawn Elshere
Circuit Court Judge
Third Judicial Circuit

Attest:
Reichling, Sandy
Clerk/Deputy

Filed on: 03/12/2021 DEUEL County, South Dakota 19CIV20-000021

STATE OF SOUTH DAKOTA	)	IN CIRCUIT COURT
	:SS	
COUNT OF DEUEL	)	THIRD JUDICIAL CIRCUIT

IN THE MATTER OF
ADMINISTRATIVE APPEAL GARRY
EHLEBRACHT, STEVEN GREBER,
MARY GREBER, RICHARD RALL,
AMY RALL, AND LARETTA KRANZ

And

AMBER KAYE CHRISTENSON AND
ALLEN ROBISH,

Appellants,

Vs.

CROWN RIDGE WIND, LLC AND
SOUTH DAKOTA PUBLIC UTILITIES
COMMISSION,

Appellees

19CIV20-21 and 20-27

MEMORANDUM OPINION

INTRODUCTION

This matter comes before the circuit court on appeal by Appellants Amber Christenson and Allen Robish (collectively "Christenson Appellants")[1], Appellants Garry Ehlebracht, Steven Greber, Mary Greber, Richard Rall, Amy Rall, and Laretta Kranz (collectively "Ehlebracht Appellants")[2], appealing the South Dakota Public Utilities Commission Staff's (the "Commission's" or "Staff's") Final Decision and Order Granting Permit to Construct Facility in EL 19-027 dated April 6, 2020. (AR 14230-14258), Final Decision and Order Granting Permit to Construct Facility, Permit Conditions, Notice of Entry (Permit)).[3]

[1] Christenson Appellants – 19CIV20-27
[2] Ehlebracht Appellants – 19CIV20-21.
[3] All citations to the administrative record are referenced as "AR".

Exhibit
A

STATEMENT OF JURISDICTION

The Christenson Appellants appeal from Commission's April 6, 2020, Final Decision and Order Granting Permit to Construct Facility; Permit Conditions; and Notice of Entry as related to its issuance of a wind energy facility permit to CRWII, pursuant to SDCL § 1-26-30, as provided for by SDCL § 49-41B-30. Appellants each timely and properly filed their respective Notice of Appeals on May 1, 2020, and May 5, 2020, in both Codington and Grant Counties, South Dakota. Thereafter, following Commission's unopposed motion to change venue (May 11, 2020), the circuit court entered its Order changing venue herein (May 19, 2020), pursuant to SDCL § 1-26-31.1. This Court ordered that the Intervenors files would be thereafter combined into this appellate file, 19CIV20-27.

The Ehlebracht Appellants appeal from the same April 6, 2020, Final Decision and Order, as related to its issuance of a wind energy facility permit to CRWII, pursuant to SDCL § 1-26-30, as provided for by SDCL § 49-41B-30. Appellants timely and filed their Notice of Appeal on April 29, 2020, in Deuel County, South Dakota.

STATEMENT OF FACTS

On July 9, 2019, Crowned Ridge Wind II, LLC[4] ("Applicant", "Crowned Ridge", or "CRWII") submitted its application for a facility permit for a 300.6-megawatt (MW) wind energy facility to consist of up to 132 wind turbines in Deuel, Grant, and Codington counties (the "Project").[5] (AR 14230-14258). Within its application, CRWII submitted written testimony from six witnesses.[6] (AR 1-1118, 3233-3254). The commercial operation date of the Project was estimated to be in the fourth quarter of 2020. (AR 11).

On July 11, 2019, the Staff issued the Notice of Application; Order for and Notice of Public Input Hearing; and a Notice for Opportunity to Apply for Party Status and established an intervention deadline of September 9, 2019. (AR 1122-1123).

On July 31, 2019, the Commission issued an order granting party status as Intervenors to the Christenson Appellants. (AR 1193-1194). On August 26, 2019, the Commission issued an order granting party status as Intervenors to the Ehlebracht Appellants. (AR 1478). On that same

[4] CRWII is a wholly-owned, indirect subsidiary of NextEra Energy Resources, LLC.
[5] Besides the turbines, the Project also includes access roads to the turbines and associated facilities, underground 34.5 kV electrical collector lines, underground fiber-optic cable, a 34.5-kV to 230 kV collection substations, two permanent meteorological towers, and an operations and maintenance facility.
[6] Jay Haley, Sarah Sappington, Mark Thompson, Tyler Wilhelm, Daryl Hart, and Richard Lampeter.

day, pursuant to SDCL §§ 49-41B-15 and 49-41B-16, the Commission held the public input meeting in Watertown, South Dakota. (AR 1122-1123, 1274-1477).

On September 20, 2019, CRWII submitted pre-filed Supplemental Testimonies and Exhibits.[7] (AR 2007-3223). On October 21, 2019, CRWII filed Corrected Direct Testimony of Witness Sarah Sappington. (AR 3233-3254). On December 9, 2019, Staff filed Pre-Filed Direct Testimony and Exhibits of five witnesses.[8] (AR 3356-4259). On December 12, 2019, several Ehlebracht Appellants[9] each filed Pre-Filed Direct Testimony in the form of Affidavits. (AR 4251-4264). On January 8, 2020, CRWII submitted Pre-Filed Rebuttal Testimony and Exhibits of seven witnesses[10] (with corrections filed on January 22, 2020, and January 24, 2020). (AR 4267-4338). On January 23, 2020, Staff submitted Pre-Filed Supplemental Testimony of David Lawrence. (AR 7054-7079).

On February 4-6, 2020, the Commission held an evidentiary hearing in Pierre, South Dakota. (AR 8844-13781). CRWII, Staff, and Appellants participated in the evidentiary hearing, presenting testimony, and cross-examining witnesses.[11] (AR 8844-13781). Appellants presented witness testimony,[12] but did not pre-file expert testimony. The Hearing Examiner presided over the hearing and each of the commissioners were present for the entirety of the hearing. On February 27 and March 2, 2020, the Parties filed Post-Hearing Briefs. (AR 13820-13919).

On March 17, 2020, the Commission met to consider whether to issue a facility permit for the Project. (AR 13984-14079). At the meeting, the Commission voted unanimously to issue a permit for the Project, subject to 49 conditions. (AR 13994-14079). On April 6, 2020, the Commission issued the Permit. (AR 14230-14258). The Permit includes conditions establishing maximum permissible sound levels and maximum levels of shadow flicker at residences near the Project.[13] (AR 14246-14258).

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[7] These include Mark Thompson, Jay Haley, Tyler Wilhelm, Dr. Cristopher Ollson, Daryl Hart, Sarah Sappington, Michael MaRous, and Dr. Robert McCunney.
[8] These include David Hessler, Darren Kearney, Hilary Meyer Morey, David Lawrence, and Paige Olson.
[9] Amy Rall, Laretta Kranz, Garry Ehlebracht, and Steven Greber.
[10] These include Mark Thompson, Jay Haley, Tyler Wilhelm, Richard Lampeter, Sarah Sappington, Michael MaRous, and Dr. Christopher Ollson.
[11] Seventeen witnesses testified at this hearing.
[12] On December 12, 2019, Garry Ehlebracht, Steven Greber, Amy Rall, and Laretta Kranz submitted pre-filed direct testimony.
[13] Specifically, Permit Condition 26 limits sound levels emitted from the Project to 45 dBA for non-participating residences and 50 dBA for participating residences, as measured within 25 feet of a residence, with an allowance for a landowner to waive the condition. (AR 14251). Permit Condition 35 restricts Shadow Flicker at residences to 30 hours per year, with an allowance for an owner to waive the condition. (AR 14255).

On April 29, 2020, the Ehlebracht Appellants filed a Notice of Appeal of the Order in the Third Circuit Court located in Deuel County followed by a Statement of Issues on May 7, 2020. On May 1, 2020, the Christenson Appellants filed a Notice of Appeal followed by a Statement of Issues on May 11, 2020. With the consent of the parties, the appeals were consolidated in the Third Circuit Court in Deuel County.

On July 13, 2020, Ehlebracht Appellants filed their initial brief. On August 10, 2020, Christenson Appellants filed their initial brief. On September 11, 2020, Staff filed its Response Brief to Christenson Appellants. ("Staff's Brief to Christenson"). On September 23, 2020, CRWII submitted its Response Brief to both Christenson and Ehlebracht Appellants ("CRWII's Brief"). On September 24, 2020, Staff filed its Response Brief to Ehlebracht Appellants. ("Staff's Brief to Ehlebracht"). On October 8, 2020, Christenson Appellants submitted their Reply Brief to both Staff and CRWII. On October 13, 2020, Ehlebracht Appellants submitted their Reply Brief. On November 23, 2020, a hearing was held on the matter in Deuel County, South Dakota

STANDARD OF REVIEW

The regulatory agency here, the Public Utilities Commission, is governed by the Administrative Rules of South Dakota ("ARSD"), specifically ARSD Chapter 20:10:22 ("Energy Facility Siting Rules"). Decisions by the Commission may be appealed to the circuit court:

> Any party to a permit issuance proceeding aggrieved by the final decision of the Public Utilities Commission on an application for a permit, may obtain judicial review of that decision by filing a notice of appeal in circuit court. The review procedures shall be the same as that for contested cases under chapter 1-26.[14]

SDCL § 49-41B-30. Subsequently, SD Ch. 1-26 states the following review procedures:

> The court shall give great weight to the findings made and inferences drawn by an agency on questions of fact. The court may affirm the decision of the agency or remand the case for further proceedings. The court may reverse or modify the decision if substantial rights of the appellant have been prejudiced because the administrative findings, inferences, conclusions, or decisions are:
>
> (1) In violation of constitutional or statutory provisions;

[14] "The sections of Title 15 relating to practice and procedure in the circuit courts shall apply to procedure for taking and conducting appeals under this chapter so far as the same may be consistent and applicable, and unless a different provision is specifically made by this chapter or by the statute allowing such appeal." SDCL § 1-26-32.1; *see also* SDCL § 15-6-81(c) ("SDCL Ch. 15-6 does not supersede the provisions of statutes relating to appeal to the circuit courts.").

(2) In excess of the statutory authority of the agency;
(3) Made upon unlawful procedure;
(4) Affected by other error of law;
(5) Clearly erroneous in light of the entire evidence in the record; or
(6) Arbitrary or capricious or characterized by abuse of discretion or clearly unwarranted exercise of discretion. . ..

SDCL § 1-26-36; *see also In re Otter Tail Power Co. ex rel. Big Stone II*, 2008 S.D. 5, ¶ 26, 744 N.W.2d 594, 602.

The agency's factual findings are reviewed under the clearly erroneous standard. *Id.* (citing SDCL § 1-26-36(5)). A decision is clearly erroneous if, after reviewing the entire record, the reviewing court is left with a definite and firm conviction that a mistake has been made. *Steinmetz v. State, DOC Star Academy*, 2008 S.D. 87, ¶ 6, 756 N.W.2d 392, 395 (internal citations omitted). It is well-settled that a court will not weigh the evidence or substitute its judgment for that of the Commission, rather, it is the court's function to determine whether there was any substantial evidence in support of the Commission's conclusion or finding. *See, e.g., Application of Svoboda*, 54 N.W.2d 325, 327 (S.D. 1952) (citing *Application of Dakota Transportation of Sioux Falls*, 291 N.W. 589 (S.D. 1940)).

Regarding questions of fact, the court affords great weight to the findings made and inferences drawn by an agency. *See* SDCL § 1-26-36. The agency's decision may be affirmed or remanded but cannot be reversed or modified absent a showing of prejudice. *Anderson*, 2019 S.D. 11, ¶ 10, 924 N.W.2d at 149 (citing SDCL § 1-26-36) (emphasis added). Even if the court finds the Commission abused its discretion, the Commission's decision may not be overturned unless the court also concludes that the abuse of discretion had prejudicial effect.[15] *Sorensen*, 2015 S.D. 88, ¶ 20, 871 N.W.2d at 856 (emphasis added).

Questions of law are reviewed de novo on appeal from an administrative agency's decision. *Anderson v. South Dakota Retirement System*, 2019 S.D. 11, ¶ 10, 924 N.W.2d 146, 149 (citing *Dakota Trailer Mfg., Inc. v. United Fire & Cas. Co.*, 2015 S.D. 55, ¶ 11, 866 N.W.2d 545, 548) (emphasis added). Matters of reviewable discretion are reviewed for abuse. *Id.* (citing SDCL § 1-

[15] A reviewing court will reverse an administrative agency decision when the substantial rights of the appellant have been prejudiced because the administrative findings, inferences, conclusions or decisions are affected by error of law, are clearly erroneous in light of the entire evidence in the record, or are arbitrary and capricious, or are characterized by abuse of discretion, or are clearly an unwarranted exercise of discretion. SDCL § 1-26-36; *In re One-time Special Underground Assessment by Northern States Power Company in Sioux Falls*, 2001 S.D. 63, ¶ 8, 628 N.W.2d 332, 334. *See also Wise v. Brooks Const. Services*, 2006 S.D. 80, ¶ 16, 721 N.W.2d 461, 466; *Apland v. Butte County*, 2006 S.D. 53, ¶ 14, 716 N.W.2d 787, 791.

26-36(6)) (emphasis added). "An agency's action is arbitrary, capricious or an abuse of discretion only when it is unsupported by substantial evidence and is unreasonable and arbitrary." *In re Midwest Motor Express*, 431 N.W.2d 160, 162 (S.D. 1988) (citing *Application of Dakota Transportation of Sioux Falls*, 291 N.W. 589 (S.D. 1940)) (emphasis added); *see also Sorensen v. Harbor Bar, LLC*, 2015 S.D. 88, ¶ 20, 871 N.W.2d 851, 856 ("An abuse of discretion 'is a fundamental error of judgment, a choice outside the range of permissible choices, a decision, which, on full consideration, is arbitrary or unreasonable.'") (internal quotation omitted)). "Substantial evidence" is defined as "such relevant and competent evidence as a reasonable mind might accept as being sufficiently adequate to support a conclusion." SDCL § 1-26-1(9).

Here, Appellants challenge the agency's conclusion that the CRWII wind facility will not harm the social and economic condition of inhabitants in the wind energy facility siting area and that the facility will not substantially impair the health, safety, or welfare of the inhabitants within the siting area as clearly erroneous based upon the record in its entirety.[16] This presents a mixed question of fact and law, reviewable de novo. *Johnson v. Light*, 2006 S.D. 88, ¶ 10, 723 N.W.2d 125, 127 ("Mixed questions of law and fact that require the reviewing Court to apply a legal standard are reviewable de novo.") (quoting *State ex rel. Bennett v. Peterson*, 2003 S.D. 16, ¶ 13, 657 N.W.2d 698, 701)).

PART I: CHRISTENSON APPELLANTS

Burden of Proof

South Dakota law requires the following:

> The applicant has the burden of proof to establish by a preponderance of the evidence that:
> (1) The proposed facility will comply with all applicable laws and rules; [and]
> . . .
> (3) The facility will not substantially impair the health, safety or welfare of the inhabitants. . ..

SDCL § 49-41B-22. Furthermore, the ARSD also places the burden upon the applicant:

> In any contested case proceeding, the complainant, counterclaimant, applicant, or petitioner has the burden of going forward with presentation of evidence unless otherwise ordered by the commission. The complainant, counterclaimant,

[16] An applicant for a permit is required to establish that the facility "will not substantially impair the health, safety or welfare of the inhabitants" in accordance with SDCL § 49-41B-22(3).

> applicant, or petitioner has the burden of proof as to factual allegations which form the basis of the complaint, counterclaim, application, or petition. In a complaint proceeding, the respondent has the burden of proof with respect to affirmative defenses.

ARSD 20:10:01:15.01 ("Burden in contested case proceeding").

Christenson Appellants assert that the PUC's findings of fact were clearly erroneous, and its corresponding conclusions of law amounted to reversible error under SDCL § 1-26-36, in part, since Applicant failed to meet its burden of proof and/or its burden of going forward as required by SDCL § 49-41B-22 and/or ARSD 20:10:01:15.01. Under this burden of proof issue, the Christenson appellants assert several issues where the burden of proof failed. The court will address them below.

Solid Waste

Christenson Appellants initially raised the issue of "solid or radioactive waste" in their first brief. Christenson Brief, at 9-11. However, as Appellees PUC and CRWII argued in their responsive briefs, Christenson argued the wrong ARSD, as that did not apply to wind energy facilities, such as this Project.[17] The applicable ARSD in this case is the following:

> The applicant shall include an identification and analysis of the effects the construction, operation, and maintenance of the proposed facility will have on the anticipated affected area including the following:
>
> (1) A forecast of the impact on commercial and industrial sectors, . . . solid waste management facilities, . . . and other community and government facilities or services. . ..

ARSD 20:10:22:23 ("Community impact"). Christenson acknowledges the previous error, and then argues this "community impact" regulation in their reply brief. Christenson Reply Brief, at 2-4. Although the incorrect statute was cited, the issue of "solid waste" was argued initially.

[17] Christenson initially argued that CRWII did not comply with ARSD 20:10:22:31, which states "The applicant shall provide information concerning the generation, treatment, storage, transport, and disposal of solid or radioactive waste generated by the proposed facility and evidence that all disposal of the waste will comply with the standards and regulations of any federal or state agency having jurisdiction. . .." However, as PUC argued, ARSD 20:10:22:05 states that ARSD 20:10:22:26 to 20:10:22:33, inclusive, apply for a permit for an *energy conversion* facility. *See* SDCL § 49-41B-2(6) for the definition of an energy conversion facility. Rather, this regulation states that ARSD 20:10:22:33.01 and 20:10:22:33.02 apply for a permit for a *wind energy* facility.

Christenson's argument concentrates upon the issue of identifying, analyzing, and forecasting the end of life disposal of the Project's used blades, concrete, and other refuse. The Staff states that the Commission heard evidence on the future disposal of wind turbine blades and received assurance from CRWII that it would comply with the applicable laws for disposal, which could occur decades into the future. CRWII stated at the November 2020 hearing that the statute is limited to the construction, operation, and maintenance of the facility, and that there is nothing in it regarding the decommissioning or tearing down.

Appellees' arguments are more persuasive here. First, the testimonies provided repeated assurances that the Project would follow the applicable laws. Furthermore, in the Application, this ARSD was specifically addressed, and stated in part, "Construction and operation of the Project . . . is not anticipated to have significant short- or long-term effects on . . . solid waste management facilities." Ex. A1, page 93.

Second, the argument of "disposal" here appears moot. While the incorrect, previously cited ARSD 20:10:22:31 requires proper disposal, the correct, applicable ARSD 20:10:22:23 does not mention the words "disposal" or "decommissioning" at all. It specifically refers to a facility's "construction, operation, and maintenance." Christenson's argument here concerns the *end of life* of the Project, and not the *construction, operation, and maintenance* of the Project. This ARSD does not require specific plans for the *disposal* of blades and refuse; therefore, the Commission did not violate SDCL § 49-41B-22, ARSD 20:10:01:15.01, or ARSD 20:10:22:31.

Thus, regarding the issue of "solid waste," the Commission met its burden of proof and did not err when granting a permit to CRWII. Furthermore, because the Commission did not err in its decision, the question of prejudice need not be discussed for "solid waste."

Compliance with Grant County Ordinance

Christenson Appellants argue the following:

> Appellee PUC wrongly and prejudicially entered Finding of Fact No. 18 (FN. 24) in erroneously finding, in essence, that Appellee CRWII will be in compliance with applicable laws, including the Grant County Ordinance since, directly contrary to testimony by Jay Haley, that Appellee CRWII "complies with both versions of the Grant County Ordinance – the one in effect at the time of the approval of the Project by Grant County, and the one made effective shortly after the December 2018 CUP vote."

Christenson Brief, at 3. In the record, FOF 18 states the following:

> FOF 18. The evidence submitted by [CRWII] demonstrates that the Project will comply with applicable laws and rules.[18] Applicant committed that it will obtain all governmental permits which reasonably may be required by any township, county, state agency, federal agency, or any other governmental unit for the construction and operation activity of the Project prior to engaging in the particular activity covered by that permit.[19]

PUC Staff states that the Commission properly determined that the Project will comply with all applicable laws, specifically as it relates to compliance with the Grant County ordinance. Additionally, CRWII states that the record shows CRWII's commitment and ability to comply with the old and new Grant Country Sound Ordinance.

CRWII applied for its CUP for Grant County on September 17, 2018. On December 17, 2018, Grant County approved this CUP. The original ordinance was as follows:

> 13. Noise. Noise level shall not exceed 50 dBA, average A-weighted Sound pressure including constructive interference effects at the perimeter of the principal and accessory structures of existing off-site residences, businesses, and buildings owned and/or maintained by a governmental entity.

On December 28, 2018, the new ordinance was adopted, and on January 28, 2019, it became effective. The new ordinance was as follows:

> 14. Noise. Noise level shall not exceed 45 dBA, average A-weighted Sound pressure including constructive interference effects measured twenty-five (25) feet from the perimeter of the existing non-participating residences, businesses, and buildings owned and/or maintained by a governmental entity.

In addition to FOF 18, Christenson Appellants argue that FOF 46 is also clearly erroneous:

> 46. The record demonstrates that Applicant has appropriately minimized the sound level produced from the Project to the following: (1) no more than 45 dBA at any

[18] FOF 18 (Footnote 23): Ex. A1 at 72-76, 111-112 (Application) and Ex. A5 at 8-11 (Wilhelm Direct Testimony).
[19] FOF 18 (Footnote 24): At the evidentiary hearing, pro se Intervenor Christenson questioned whether Applicant was in compliance with the Grant County Ordinance in effect at the time Grant County voted to approve the Project or the Ordinance that was made effective after the County's vote to approve the Project. Applicant testified that Grant County has indicated it intends to apply the Ordinance made effective shortly after approval of the CUP for the Project. Evid. Hrg. Tr. at 47-49 (Wilhelm) (February 4, 2020). The record in this proceeding shows that Crowned Ridge Wind II complies with both versions of the Grant County Ordinance - the one in effect at the time of the approval of the Project by Grant County, and the one made effective shortly after the vote. Evid. Hrg. Tr. at 217-218, 233-234, 237-239 (Haley) (February 4, 2020); Exs. A2; A14; A21 (Haley Direct, Supplemental and Rebuttal Testimony); Ex. A14-1 through Ex. A14-4 (Supplemental Testimony Sound and Shadow Flicker Studies); Ex. A21-1 through Ex. A21-3; and Ex. A28 and Ex. 29 (Rebuttal Testimony Sound and Shadow Flicker Results); and Ex. AC-19. Therefore, the record shows that Crowned Ridge Wind II will be in compliance with applicable laws, including the Grant County Ordinance.

> non-participants' residence and (2) no more than 50 dBA at any participants' residence. . ..[20]

Christenson Brief, at 16. Christenson Appellants argue that Conclusion of Law 9, 13, and 15 are in error:

> COL 9. In the event the Project's contracted life is not extended, the record demonstrates that Applicant has appropriate and reasonable plans for decommissioning. The Project will be decommissioned in accordance with applicable state and county regulations. Applicant has agreed to Permit Condition No. 33 for purposes of decommissioning the Project.
>
> COL 13. Applicant must comply with the applicable requirements in the Deuel County, Grant County, and Codington County ordinances.
>
> COL 15. Based on the preponderance of the evidence presented to the Commission, the Commission concludes that all the requirements of SDCL § 49-41B-22 have been satisfied.

This court will not weigh the evidence or substitute its judgment for that of the PUC. Rather, it is this court's function to determine whether there was any substantial evidence in support of the PUC's conclusion or finding. The PUC found that CRWII followed the Grant County ordinance, and the findings, cited above, are supported by substantial evidence of reports, testimonies, and studies. CRWII held a valid CUP from Grant County. (AR 14235-14236). Furthermore, the Commission concluded the following:

> The evidence submitted by [CRWII] demonstrates that the Project will comply with applicable laws and rules. Applicant committed that it will obtain all governmental permits which reasonably may be required by any township, county, state agency, federal agency, or any other governmental unit for the construction and operation activity of the Project prior to engaging in the particular activity covered by that permit. The record demonstrates that construction and operation of the Project, subject to the Permit Conditions, meets all applicable requirements of SDCL Chapter 49-41B and ARSD Chapter 20:10:22.

Id. (AR 14235 footnotes citing record evidence omitted).

Christenson cites *In re Conditional Use Permit Granted to Van Zanten*, 1999 S.D. 79, 598 N.W.2d 861, and PUC counters that that case is inapplicable, as its facts and laws relate to a county

[20] FOF 46 (Footnote 98): Exs. A2; A14; A21 (Haley Direct, Supplemental and Rebuttal Testimony); Ex. A1-1 (Sound Modeling Report); Ex. A14-1 through Ex. A14-3 (Supplemental Testimony Sound Studies); Ex. A21-1; Ex. A21-3; Ex. A28, and Ex. 29 (Updated Rebuttal Sound Results).

zoning ordinance. This is an appeal from an *agency* decision, and not an appeal from a *county* decision. Because this issue is a *county* issue, and currently ongoing in case file 25CIV20-10, the Court will not address the validity of the CUP itself in this case.

Lastly, both Staff and CRWII argue in the alternative that no Appellants are prejudiced by these sound regulations of the Grant County ordinance. The Court refuses to weigh into this argument as it is unnecessary. Because the Commission did not err in its decision, the question of prejudice need not be discussed for this issue.

Aircraft Detection Lighting System (ADLS)

The Aircraft Detection Lighting System (ADLS) statute, effective on July 1, 2019, states the following:

> For any wind energy facility that receives a permit under this chapter after July 1, 2019, the facility shall be equipped with an [ADLS] that meets the requirements set forth by the Federal Aviation Administration [FAA]. . ..

SDCL § 49-41B-25.2 (in pertinent part). On April 6, 2020, the Commission issued its permit to CRWII (AR 14230-14258); therefore, this ADLS requirement applies to this permit.

Christenson Appellants argue the following:

> Appellee Commission committed error in violation of statutory provisions insofar as Applicant [CRWII] failed to meet the statutory requirements of SDCL § 49-41B-25.2 by and through its failure, at the time of the Commission's hearing on the merits of Appellee CRWII's wind energy facility permit, of being equipped with – or even having applied for – the necessary and statutorily required aircraft detection lighting system (ADLS).

Christenson Brief, at 16. Christenson argues that CRWII failed to even apply for ADLS by the time of the administrative hearing seeking approval (February 4-6, 2020), and that the Commission clearly erred in its Findings of Fact 18,[21] 30,[22] and 66.[23]

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[21] *See* Issue 1A: Compliance with Grant County Ordinance, *supra*.
[22] FOF 30. Applicant will install and use lighting required by the [FAA]. Applicant will equip the Project with a FAA-approved [ADLS] to minimize visual impact of the Project starting with the commercial operation date and for the life of the Project, subject to normal maintenance and forced outages.
[23] FOF 66. The Commission finds that the Project, if constructed in accordance with the Permit Conditions of this decision, will comply with all applicable laws and rules, including all requirements of SDCL Chapter 49-41B and ARSD Chapter 20:10:22.

The Court finds Christenson's argument to be misguided. The plain reading of the statute requires that CRWII, the applicant wind energy facility, which receives a permit, shall be equipped with an ADLS in compliance with the FAA. Christenson appears to argue that CRWII was not equipped with ADLS at the time of the permit, which is a clear misunderstanding of the statute.

Or, alternatively, Christenson argues that CRWII had no plan to install ADLS in its Application for its facility permit (submitted July 9, 2019) at the time of the Commission's Hearing (February 4-6, 2020). This would also be a misunderstanding of the statute, which says a facility that "receives a permit . . . shall be equipped" with an ADLS. Nothing in the statute requires the "merits" of the Applicant's permit being equipped or applied for an ADLS.

Furthermore, this point is moot. Findings of Fact 30 and 51, and Permit Condition 34, all state that CRWII will install and use ADLS in compliance with the FAA. CRWII points to Permit Condition 1 (Applicant will obtain all governmental permits which reasonably may be required by any governmental unit for construction and operation activity of the Project prior to operation) and Permit Condition 34 (Applicant shall apply to the FAA for approval to utilize an ADLS and allow enough time for a FAA determination and system construction prior to operation). FOF 51 requires the Applicant to illuminate the wind turbines as required by the FAA.

Therefore, regarding the ADLS, the Commission did not err when granting a permit to CRWII. Furthermore, because the Commission did not err in its decision, the question of prejudice need not be discussed for ADLS.

Sound and Air Quality Studies

A. Sound Study

Christenson Appellants argue the following:

> Appellee Commission failed to receive and consider Appellee [CRWII's] complete application for a wind energy facility permit through the time of the evidentiary hearing herein contrary to the requirements of South Dakota law, pursuant to SDCL § 49-41B-22(3), including the submission for review of a pre-construction sound or health study in each (or any) of the adversely affected counties.

Christenson Brief, at 18. Staff responds that Applicant met is burden of proof with respect to SDCL § 49-41B-22(3). CRWII responds that it carried its burden that the Project will not substantially impair the health or welfare of inhabitants.

South Dakota law states that the "applicant has the burden of proof to establish by a preponderance of the evidence that . . . the facility will not substantially impair the health, safety or welfare of the inhabitants. . .." SDCL § 49-41B-22(3).

Christenson Appellant states that "[a]lthough four (4) proposed experts appeared and gave testimony and evidence at the evidentiary hearing for Appellee CRWII, no infrasound or low frequency sound study was requested to be conducted, nor any study submitted to Appellee PUC for evidentiary analysis and review." Christenson Brief, at 19.

Staff responds that (1) there is no legislative directive as to how an applicant must establish that a project will not substantially impair the health and welfare of the community; and (2) there is no rule that mandates how the applicant must satisfy the burden. Staff's Brief, at 11. Staff then states that the Commission found sufficient evidence in the record to demonstrate that "the sound from the Project would not substantially impair the health and welfare of the community." *Id.*, (Findings of Fact 68, AR 14244). This finding was supported by substantial evidence in the record, including "expert testimony from both health experts and acousticians, with no corresponding intervenor testimony to contradict these experts." *Id.*

Again, the statute, SDCL § 49-41B-22, does not require an act that Appellants claim exists. Rather, it simply states that CRWII must prove its facility will not substantially impair the health, safety or welfare of the inhabitants. As Staff argued, there are no specific mandates on completing this task.

Therefore, regarding the sound study, the Commission did not err when granting a permit to CRWII. Furthermore, because the Commission did not err in its decision, the question of prejudice need not be discussed for the sound study.

B. Air Quality Study

Christenson Appellants argue that "contrary to the regulatory requirements of ARSD 20:10:22:21, no air quality study was requested nor submitted to Appellee PUC for review." Christenson's Brief, at 20. This ARSD states the following:

> The applicant shall provide evidence that the proposed facility will comply with all air quality standards and regulations of any federal or state agency having jurisdiction and any variances permitted.

ARSD 20:10:22:21.

CRWII argues that in its Application, it explained in detail that the Project's operations did not implicate air quality standards. CRWII's Brief, at 30. (AR 99-100). The Commission concluded "The evidence further demonstrates that there are no anticipated material impacts to existing air and water quality, and the Project will comply with applicable air and water quality standards and regulations." *Id.*; (AR 14237).

This ARSD does not require that an air quality study be submitted, only that it would comply with standards and regulations. Therefore, regarding the air quality study, the Commission did not err when granting a permit to CRWII. Furthermore, because the Commission did not err in its decision, the question of prejudice need not be discussed for the air quality study.

As to each of these issues raised the Commissions finding that the applicant has met its burden of proof as to the applicable rules and laws and that the Project will not negatively impact the health and welfare of the inhabitants was not clearly erroneous and is affirmed by this court.

PART II: EHLEBRACHT APPELLANTS

This court's role, in this procedural appeal, is to determine whether the regulatory agency was clearly erroneous or not in its findings. This court will not address the arguments of easements or takings, the histories of regulatory limitations of shadow flicker borrowed from German standards, or whether this is a discharge of light in accordance with SDCL § 43-13-2(8). This is not the proper place nor time for these arguments. This court does not have the jurisdiction to hear these argument, rendering them moot in this appeal. The court does however, address the following issues raised by Ehlebracht Appellants.

Minimal Adverse Effect

Ehlebracht Appellants argue the following issue:

> Whether the Agency, authorized to promulgate rules concerning wind energy conversion facilities (SDCL § 49-41B-35) but adopting no relevant rules as to the meaning of "minimal adverse effect," may proceed on a case-by-case or *ad hoc* basis to permit a burden of "effects" upon both citizens and their properties under

> variable regulatory limits developed by others, including those interested in the promotion of wind development.

Ehlebracht Brief, at 2, 12. This South Dakota statute states the following:

> To implement the provisions of this chapter regarding facilities, the commission shall promulgate rules pursuant to chapter 1-26. Rules may be adopted by the commission:
>
> (1) To establish the information requirements and procedures that every utility must follow when filing plans with the commission regarding its proposed and existing facilities;
> (2) To establish procedures for utilities to follow when filing an application for a permit to construct a facility, and the information required to be included in the application; and
> (3) To require bonds, guarantees, insurance, or other requirements to provide funding for the decommissioning and removal of a solar or wind energy facility.

SDCL § 49-41B-35 ("Promulgation of rules").

Ehlebracht's argument of the *ad hoc* basis is that the Commission has permitted more stringent standards for other wind energy facilities, specifically Prevailing Wind Park,[24] than others, such as the CRWII Project here. These standards include "effects" such as noise and shadow flicker.

Staff argues that the Commission is not required to promulgate rules defining "minimal adverse effects," but rather is permitted this rulemaking authority. Staff's Brief to Ehlebracht, at 7. Furthermore, Staff argues that the state statute instructs the Commission to review permit applications on case-by-case or ad hoc bases.[25] CRWII likewise makes the same argument, the Commission has discretion, not the legal obligation to adopt rules. CRWII's Brief, at 8-9.

The state statutes and ARSD clearly permit the Commission to adopt rules and procedures. Ehlebracht's argument here focuses on requiring the Commission to adopt a standard that applies to all windfarms. Currently, the laws require that the Commission defers to local county ordinances. As evidenced within this case itself, there are three counties (Codington, Deuel, and Gran), each with their own separate standards.

[24] This wind energy facility is in Bon Homme, Yankton, and Charles Mix counties.
[25] *See* SDCL §§ 49-41B-11 through 49-41B-25, inclusive.

Therefore, regarding this issue, the Commission did not err when granting a permit to CRWII. Furthermore, because the Commission did not err in its decision, the question of prejudice need not be discussed for this issue.[26]

Issue 2: Easements and Servitudes

Ehlebracht Appellants argue the following issue:

> Whether SDCL § 43-13-2, "Easements and Servitudes," applies to the land and property interests of Appellants, bearing on the Applicant's claimed right to hereafter discharge adulterated light (in the form of Shadow Flicker, along with other Effects) onto and into the dwellings and lands of appellants, given that the Agency's Decision offers or affords approval of such discharge but without the required consent of the fee owner.

Ehlebracht Brief, at 18. This South Dakota statute states the following:

> The following land burdens or servitudes upon land may be attached to other land as incidents or appurtenances, and are called easements:
> . . .
> (8) The right of receiving air, light, or heat from or over, or discharging the same upon or over land . . .

SDCL § 43-13-2(8).

Ehlebracht Appellants argue that the right to discharge light upon or over land is an affirmative easement. Ehlebracht Brief, at 21. Staff argues that the "Commission is not a court of general jurisdiction and has no authority to assess property rights, nor waive any underlying law, ordinance or regulation that otherwise applies to the construction of wind turbines." Staff's Ehlebracht Brief, at 12. CRWII argues that this statute "is wholly outside the statute the Legislature enacted for the Commission to administer." CRWII's Brief, at 20; *Northwestern Bell Tel. Co. v. Chicago & N.W. Transp.*, 245 N.W.2d 639, 641 (S.D. 1976) ("The Public Utilities Commission is an administrative body authorized to find and determine facts, upon which the statutes then operate. It is not a court and exercises no judicial functions").

[26] Ehlebracht Appellants also casually state that the equal protection laws are violated (Art. 6, 18, S.D. Const.; 14th Amendment, U.S. Const.). The Court finds this argument without merit, as it does not provide evidence aside for claims that one county ordinance has a more stringent ordinance than that of another county on the other side of the state.

Here, the Court agrees with the appellees that this issue is outside its jurisdiction. This court's role, in this procedural appeal, is to determine whether the regulatory agency was clearly erroneous or not in its findings. Therefore, regarding this issue, the Court will not weigh into the question of easements.

Taking and *Per Se* Nuisance

Ehlebracht Appellants argue the following issue:

> Whether the exercise of the Agency's permitting authority under Chapter 49-41B, SDCL, giving approval for the casting of Effects over the homes and lands of Non-Participants, but without an easement being conferred in favor of Applicant and without the provisions of SDCL § 21-35-31 having been invoked, is a taking of Appellants' private property interests?

Ehlebracht Brief, at 27. Ehlebracht Appellants state that they will be subject to the Effects given off by the Project (such as noise and shadow flicker). Without the appellants granting permission, this would in effect "accomplish[] a *taking* of the property interests of these Appellants." *Id.*, at 29.

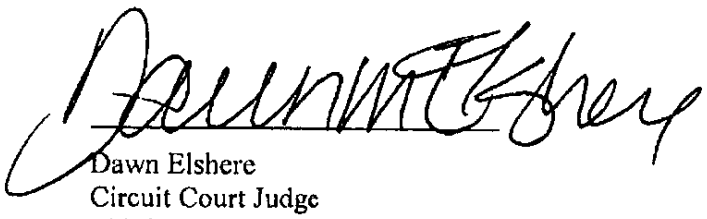
Staff argues that the Commission's order granting CRWII a permit to construct a wind energy facility is not a taking or a *per se* nuisance. Regarding a "taking," Ehlebracht fails each of the four theories under South Dakota case law. *Benson v. State*, 710 N.W.2d 131, 149 (S.D. 2006) (a regulatory physical taking; a permanent physical invasion of property; depriving owner of all economically beneficial uses of property; and a land-use exaction violating standards). Regarding *per se* nuisance, Staff argues that Ehlebracht's claim is not ripe, nor do the appellants submit sufficient evidence for the court to determine a taking has occurred. *See Boever, v. South Dakota Bd. of Accountancy*, 526 N.W.2d 747 (S.D. 1995). CRWII argues that the per se nuisance is insufficient to create a ripe controversy. *See Boever*, 526 N.W.2d at 750.

The Court here agrees with Appellees' arguments. Ehlebracht has not established that noise and shadow flicker is a taking under South Dakota law, and the per se nuisance is not ripe for controversy. Therefore, the court will not address either of these issues.

CONCLUSION

Considering the Commission's findings, inferences, and conclusions, the Commission was not clearly erroneous and did not abuse its discretion in granting the permit to Crowned Ridge II. The Commission's decision was supported by extensive findings and conclusions that were supported by an exhaustive and complete administrative record. Therefore, the court affirms the Commission's decision and denies all of issues raised by each group of Appellants (Christensen and Ehlebracht). Counsel for the Appellee is directed to prepare an Order affirming the Decision of the Public Utilities Commission.

BY THE COURT:



Dawn Elshere
Circuit Court Judge
Third Judicial Circuit

STATE OF SOUTH DAKOTA) : SS COUNTY OF DEUEL)	IN CIRCUIT COURT THIRD JUDICIAL CIRCUIT
IN THE MATTER OF ADMINISTRATIVE APPEAL GARRY EHLEBRACHT, STEVEN GREBER, MARY GREBER, RICHARD RALL, AMY RALL AND LARETTA KRANZ and AMBER KAYE CHRISTENSON AND ALLEN ROBISH, Appellants, v. CROWNED RIDGE WIND, LLC AND SOUTH DAKOTA PUBLIC UTILITIES COMMISSION, Appellees.	19CIV20-000021, and 19CIV20-000027 **NOTICE OF ENTRY** **OF ORDER**

NOTICE IS HEREBY GIVEN that on March 12, 2021, the Honorable Dawn Elshere, Circuit Court Judge of the Third Judicial Circuit, signed an Order affirming the Decision and Order of the South Dakota Public Utilities Commission, which Order was entered and filed on March 12, 2021. Attached hereto and served herewith is a true and correct copy of said Order.

Filed: 3/15/2021 12:47 PM CST Deuel County, South Dakota 19CIV20-000027
- Page 1459 -

Dated this 15th day of March, 2021.

LYNN, JACKSON, SHULTZ & LEBRUN, P.C.

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CERTIFICATE OF SERVICE

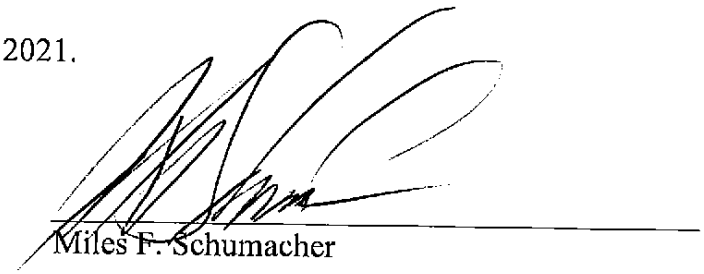
I hereby certify that true and correct copies of the **Notice of Entry of Order** affirming the Decision and Order of the South Dakota Public Utilities Commission were served electronically to the Parties listed below, on the 15th day of March, 2021, through the Odyssey file and serve system:

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Dated this 15th day of March, 2021.



Miles F. Schumacher

STATE OF SOUTH DAKOTA) : SS COUNTY OF DEUEL)	IN CIRCUIT COURT THIRD JUDICIAL CIRCUIT
IN THE MATTER OF ADMINISTRATIVE APPEAL GARRY EHLEBRACHT, STEVEN GREBER, MARY GREBER, RICHARD RALL, AMY RALL AND LARETTA KRANZ and AMBER KAYE CHRISTENSON AND ALLEN ROBISH, Appellants, v. CROWNED RIDGE WIND, LLC AND SOUTH DAKOTA PUBLIC UTILITIES COMMISSION, Appellees.	19CIV20-000021, and 19CIV20-000027 **ORDER**

Appellants Garry Ehlebracht, Steven Greber, Mary Greber, Richard Rall, Amy Rall, and Laretta Kranz having appealed from the South Dakota Public Utilities Commission's Final Decision and Order Granting Permit to Construct Facility in EL 19-027, and Appellants Amber Christenson and Allen Robish having separately appealed as a part of their separate issues in both Codington County and Grant County, and with the appeals being thereafter combined for purposes of judicial economy, and with all parties having appeared by and through their respective counsel of record, and the Court having considered the Briefs submitted by all parties as well as all arguments of counsel, and the Court having

Filed on: 03/12/2021 DEUEL County, South Dakota 19CIV20-000027
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- Page 1462 -

issued its Memorandum Opinion on February 26, 2021, which is attached as Exhibit A and incorporated herein by this reference, it is hereby,

ORDERED, ADJUDGED and DECREED that the Decision and Order of the South Dakota Public Utilities Commission, entered April 6, 2020, is affirmed.

Signed: 3/12/2021 10:56:19 AM

Dated this _____ day of March, 2021.

BY THE COURT:

Honorable Dawn Elshere
Circuit Court Judge
Third Judicial Circuit

Attest:
Reichling, Sandy
Clerk/Deputy

Filed on: 03/12/2021 DEUEL County, South Dakota 19CIV20-000021

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- Page 1463 -

STATE OF SOUTH DAKOTA	)	IN CIRCUIT COURT
	:SS	
COUNT OF DEUEL	)	THIRD JUDICIAL CIRCUIT

IN THE MATTER OF ADMINISTRATIVE APPEAL GARRY EHLEBRACHT, STEVEN GREBER, MARY GREBER, RICHARD RALL, AMY RALL, AND LARETTA KRANZ

And

AMBER KAYE CHRISTENSON AND ALLEN ROBISH,

Appellants,

Vs.

CROWN RIDGE WIND, LLC AND SOUTH DAKOTA PUBLIC UTILITIES COMMISSION,

Appellees

19CIV20-21 and 20-27

MEMORANDUM OPINION

INTRODUCTION

This matter comes before the circuit court on appeal by Appellants Amber Christenson and Allen Robish (collectively "Christenson Appellants")[1], Appellants Garry Ehlebracht, Steven Greber, Mary Greber, Richard Rall, Amy Rall, and Laretta Kranz (collectively "Ehlebracht Appellants")[2], appealing the South Dakota Public Utilities Commission Staff's (the "Commission's" or "Staff's") Final Decision and Order Granting Permit to Construct Facility in EL 19-027 dated April 6, 2020. (AR 14230-14258), Final Decision and Order Granting Permit to Construct Facility, Permit Conditions, Notice of Entry (Permit)).[3]

[1] Christenson Appellants – 19CIV20-27
[2] Ehlebracht Appellants – 19CIV20-21.
[3] All citations to the administrative record are referenced as "AR".

Exhibit A

STATEMENT OF JURISDICTION

The Christenson Appellants appeal from Commission's April 6, 2020, Final Decision and Order Granting Permit to Construct Facility; Permit Conditions; and Notice of Entry as related to its issuance of a wind energy facility permit to CRWII, pursuant to SDCL § 1-26-30, as provided for by SDCL § 49-41B-30. Appellants each timely and properly filed their respective Notice of Appeals on May 1, 2020, and May 5, 2020, in both Codington and Grant Counties, South Dakota. Thereafter, following Commission's unopposed motion to change venue (May 11, 2020), the circuit court entered its Order changing venue herein (May 19, 2020), pursuant to SDCL § 1-26-31.1. This Court ordered that the Intervenors files would be thereafter combined into this appellate file, 19CIV20-27.

The Ehlebracht Appellants appeal from the same April 6, 2020, Final Decision and Order, as related to its issuance of a wind energy facility permit to CRWII, pursuant to SDCL § 1-26-30, as provided for by SDCL § 49-41B-30. Appellants timely and filed their Notice of Appeal on April 29, 2020, in Deuel County, South Dakota.

STATEMENT OF FACTS

On July 9, 2019, Crowned Ridge Wind II, LLC[4] ("Applicant", "Crowned Ridge", or "CRWII") submitted its application for a facility permit for a 300.6-megawatt (MW) wind energy facility to consist of up to 132 wind turbines in Deuel, Grant, and Codington counties (the "Project").[5] (AR 14230-14258). Within its application, CRWII submitted written testimony from six witnesses.[6] (AR 1-1118, 3233-3254). The commercial operation date of the Project was estimated to be in the fourth quarter of 2020. (AR 11).

On July 11, 2019, the Staff issued the Notice of Application; Order for and Notice of Public Input Hearing; and a Notice for Opportunity to Apply for Party Status and established an intervention deadline of September 9, 2019. (AR 1122-1123).

On July 31, 2019, the Commission issued an order granting party status as Intervenors to the Christenson Appellants. (AR 1193-1194). On August 26, 2019, the Commission issued an order granting party status as Intervenors to the Ehlebracht Appellants. (AR 1478). On that same

[4] CRWII is a wholly-owned, indirect subsidiary of NextEra Energy Resources, LLC.
[5] Besides the turbines, the Project also includes access roads to the turbines and associated facilities, underground 34.5 kV electrical collector lines, underground fiber-optic cable, a 34.5-kV to 230 kV collection substations, two permanent meteorological towers, and an operations and maintenance facility.
[6] Jay Haley, Sarah Sappington, Mark Thompson, Tyler Wilhelm, Daryl Hart, and Richard Lampeter.

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- Page 1465 -

day, pursuant to SDCL §§ 49-41B-15 and 49-41B-16, the Commission held the public input meeting in Watertown, South Dakota. (AR 1122-1123, 1274-1477).

On September 20, 2019, CRWII submitted pre-filed Supplemental Testimonies and Exhibits.[7] (AR 2007-3223). On October 21, 2019, CRWII filed Corrected Direct Testimony of Witness Sarah Sappington. (AR 3233-3254). On December 9, 2019, Staff filed Pre-Filed Direct Testimony and Exhibits of five witnesses.[8] (AR 3356-4259). On December 12, 2019, several Ehlebracht Appellants[9] each filed Pre-Filed Direct Testimony in the form of Affidavits. (AR 4251-4264). On January 8, 2020, CRWII submitted Pre-Filed Rebuttal Testimony and Exhibits of seven witnesses[10] (with corrections filed on January 22, 2020, and January 24, 2020). (AR 4267-4338). On January 23, 2020, Staff submitted Pre-Filed Supplemental Testimony of David Lawrence. (AR 7054-7079).

On February 4-6, 2020, the Commission held an evidentiary hearing in Pierre, South Dakota. (AR 8844-13781). CRWII, Staff, and Appellants participated in the evidentiary hearing, presenting testimony, and cross-examining witnesses.[11] (AR 8844-13781). Appellants presented witness testimony,[12] but did not pre-file expert testimony. The Hearing Examiner presided over the hearing and each of the commissioners were present for the entirety of the hearing. On February 27 and March 2, 2020, the Parties filed Post-Hearing Briefs. (AR 13820-13919).

On March 17, 2020, the Commission met to consider whether to issue a facility permit for the Project. (AR 13984-14079). At the meeting, the Commission voted unanimously to issue a permit for the Project, subject to 49 conditions. (AR 13994-14079). On April 6, 2020, the Commission issued the Permit. (AR 14230-14258). The Permit includes conditions establishing maximum permissible sound levels and maximum levels of shadow flicker at residences near the Project.[13] (AR 14246-14258).

---

[7] These include Mark Thompson, Jay Haley, Tyler Wilhelm, Dr. Cristopher Ollson, Daryl Hart, Sarah Sappington, Michael MaRous, and Dr. Robert McCunney.
[8] These include David Hessler, Darren Kearney, Hilary Meyer Morey, David Lawrence, and Paige Olson.
[9] Amy Rall, Laretta Kranz, Garry Ehlebracht, and Steven Greber.
[10] These include Mark Thompson, Jay Haley, Tyler Wilhelm, Richard Lampeter, Sarah Sappington, Michael MaRous, and Dr. Christopher Ollson.
[11] Seventeen witnesses testified at this hearing.
[12] On December 12, 2019, Garry Ehlebracht, Steven Greber, Amy Rall, and Laretta Kranz submitted pre-filed direct testimony.
[13] Specifically, Permit Condition 26 limits sound levels emitted from the Project to 45 dBA for non-participating residences and 50 dBA for participating residences, as measured within 25 feet of a residence, with an allowance for a landowner to waive the condition. (AR 14251). Permit Condition 35 restricts Shadow Flicker at residences to 30 hours per year, with an allowance for an owner to waive the condition. (AR 14255).

On April 29, 2020, the Ehlebracht Appellants filed a Notice of Appeal of the Order in the Third Circuit Court located in Deuel County followed by a Statement of Issues on May 7, 2020. On May 1, 2020, the Christenson Appellants filed a Notice of Appeal followed by a Statement of Issues on May 11, 2020. With the consent of the parties, the appeals were consolidated in the Third Circuit Court in Deuel County.

On July 13, 2020, Ehlebracht Appellants filed their initial brief. On August 10, 2020, Christenson Appellants filed their initial brief. On September 11, 2020, Staff filed its Response Brief to Christenson Appellants. ("Staff's Brief to Christenson"). On September 23, 2020, CRWII submitted its Response Brief to both Christenson and Ehlebracht Appellants ("CRWII's Brief"). On September 24, 2020, Staff filed its Response Brief to Ehlebracht Appellants. ("Staff's Brief to Ehlebracht"). On October 8, 2020, Christenson Appellants submitted their Reply Brief to both Staff and CRWII. On October 13, 2020, Ehlebracht Appellants submitted their Reply Brief. On November 23, 2020, a hearing was held on the matter in Deuel County, South Dakota

STANDARD OF REVIEW

The regulatory agency here, the Public Utilities Commission, is governed by the Administrative Rules of South Dakota ("ARSD"), specifically ARSD Chapter 20:10:22 ("Energy Facility Siting Rules"). Decisions by the Commission may be appealed to the circuit court:

> Any party to a permit issuance proceeding aggrieved by the final decision of the Public Utilities Commission on an application for a permit, may obtain judicial review of that decision by filing a notice of appeal in circuit court. The review procedures shall be the same as that for contested cases under chapter 1-26.[14]

SDCL § 49-41B-30. Subsequently, SD Ch. 1-26 states the following review procedures:

> The court shall give great weight to the findings made and inferences drawn by an agency on questions of fact. The court may affirm the decision of the agency or remand the case for further proceedings. The court may reverse or modify the decision if substantial rights of the appellant have been prejudiced because the administrative findings, inferences, conclusions, or decisions are:
>
> (1) In violation of constitutional or statutory provisions;

[14] "The sections of Title 15 relating to practice and procedure in the circuit courts shall apply to procedure for taking and conducting appeals under this chapter so far as the same may be consistent and applicable, and unless a different provision is specifically made by this chapter or by the statute allowing such appeal." SDCL § 1-26-32.1; *see also* SDCL § 15-6-81(c) ("SDCL Ch. 15-6 does not supersede the provisions of statutes relating to appeal to the circuit courts.").

> (2) In excess of the statutory authority of the agency;
> (3) Made upon unlawful procedure;
> (4) Affected by other error of law;
> (5) Clearly erroneous in light of the entire evidence in the record; or
> (6) Arbitrary or capricious or characterized by abuse of discretion or clearly unwarranted exercise of discretion. . ..

SDCL § 1-26-36; *see also In re Otter Tail Power Co. ex rel. Big Stone II*, 2008 S.D. 5, ¶ 26, 744 N.W.2d 594, 602.

The agency's factual findings are reviewed under the clearly erroneous standard. *Id.* (citing SDCL § 1-26-36(5)). A decision is clearly erroneous if, after reviewing the entire record, the reviewing court is left with a definite and firm conviction that a mistake has been made. *Steinmetz v. State, DOC Star Academy*, 2008 S.D. 87, ¶ 6, 756 N.W.2d 392, 395 (internal citations omitted). It is well-settled that a court will not weigh the evidence or substitute its judgment for that of the Commission, rather, it is the court's function to determine whether there was any substantial evidence in support of the Commission's conclusion or finding. *See, e.g., Application of Svoboda*, 54 N.W.2d 325, 327 (S.D. 1952) (citing *Application of Dakota Transportation of Sioux Falls*, 291 N.W. 589 (S.D. 1940)).

Regarding questions of fact, the court affords great weight to the findings made and inferences drawn by an agency. *See* SDCL § 1-26-36. The agency's decision may be affirmed or remanded but cannot be reversed or modified absent a showing of prejudice. *Anderson*, 2019 S.D. 11, ¶ 10, 924 N.W.2d at 149 (citing SDCL § 1-26-36) (emphasis added). Even if the court finds the Commission abused its discretion, the Commission's decision may not be overturned unless the court also concludes that the abuse of discretion had prejudicial effect.[15] *Sorensen*, 2015 S.D. 88, ¶ 20, 871 N.W.2d at 856 (emphasis added).

Questions of law are reviewed de novo on appeal from an administrative agency's decision. *Anderson v. South Dakota Retirement System*, 2019 S.D. 11, ¶ 10, 924 N.W.2d 146, 149 (citing *Dakota Trailer Mfg., Inc. v. United Fire & Cas. Co.*, 2015 S.D. 55, ¶ 11, 866 N.W.2d 545, 548) (emphasis added). Matters of reviewable discretion are reviewed for abuse. *Id.* (citing SDCL § 1-

[15] A reviewing court will reverse an administrative agency decision when the substantial rights of the appellant have been prejudiced because the administrative findings, inferences, conclusions or decisions are affected by error of law, are clearly erroneous in light of the entire evidence in the record, or are arbitrary and capricious, or are characterized by abuse of discretion, or are clearly an unwarranted exercise of discretion. SDCL § 1-26-36; *In re One-time Special Underground Assessment by Northern States Power Company in Sioux Falls*, 2001 S.D. 63, ¶ 8, 628 N.W.2d 332, 334. *See also Wise v. Brooks Const. Services*, 2006 S.D. 80, ¶ 16, 721 N.W.2d 461, 466; *Apland v. Butte County*, 2006 S.D. 53, ¶ 14, 716 N.W.2d 787, 791.

26-36(6)) (emphasis added). "An agency's action is arbitrary, capricious or an abuse of discretion only when it is unsupported by substantial evidence and is unreasonable and arbitrary." *In re Midwest Motor Express*, 431 N.W.2d 160, 162 (S.D. 1988) (citing *Application of Dakota Transportation of Sioux Falls*, 291 N.W. 589 (S.D. 1940)) (emphasis added); *see also Sorensen v. Harbor Bar, LLC*, 2015 S.D. 88, ¶ 20, 871 N.W.2d 851, 856 ("An abuse of discretion 'is a fundamental error of judgment, a choice outside the range of permissible choices, a decision, which, on full consideration, is arbitrary or unreasonable.'") (internal quotation omitted)). "Substantial evidence" is defined as "such relevant and competent evidence as a reasonable mind might accept as being sufficiently adequate to support a conclusion." SDCL § 1-26-1(9).

Here, Appellants challenge the agency's conclusion that the CRWII wind facility will not harm the social and economic condition of inhabitants in the wind energy facility siting area and that the facility will not substantially impair the health, safety, or welfare of the inhabitants within the siting area as clearly erroneous based upon the record in its entirety.[16] This presents a mixed question of fact and law, reviewable de novo. *Johnson v. Light*, 2006 S.D. 88, ¶ 10, 723 N.W.2d 125, 127 ("Mixed questions of law and fact that require the reviewing Court to apply a legal standard are reviewable de novo.") (quoting *State ex rel. Bennett v. Peterson*, 2003 S.D. 16, ¶ 13, 657 N.W.2d 698, 701)).

PART I: CHRISTENSON APPELLANTS

Burden of Proof

South Dakota law requires the following:

> The applicant has the burden of proof to establish by a preponderance of the evidence that:
> (1) The proposed facility will comply with all applicable laws and rules; [and]
> . . .
> (3) The facility will not substantially impair the health, safety or welfare of the inhabitants. . ..

SDCL § 49-41B-22. Furthermore, the ARSD also places the burden upon the applicant:

> In any contested case proceeding, the complainant, counterclaimant, applicant, or petitioner has the burden of going forward with presentation of evidence unless otherwise ordered by the commission. The complainant, counterclaimant,

[16] An applicant for a permit is required to establish that the facility "will not substantially impair the health, safety or welfare of the inhabitants" in accordance with SDCL § 49-41B-22(3).

> applicant, or petitioner has the burden of proof as to factual allegations which form the basis of the complaint, counterclaim, application, or petition. In a complaint proceeding, the respondent has the burden of proof with respect to affirmative defenses.

ARSD 20:10:01:15.01 ("Burden in contested case proceeding").

Christenson Appellants assert that the PUC's findings of fact were clearly erroneous, and its corresponding conclusions of law amounted to reversible error under SDCL § 1-26-36, in part, since Applicant failed to meet its burden of proof and/or its burden of going forward as required by SDCL § 49-41B-22 and/or ARSD 20:10:01:15.01. Under this burden of proof issue, the Christenson appellants assert several issues where the burden of proof failed. The court will address them below.

Solid Waste

Christenson Appellants initially raised the issue of "solid or radioactive waste" in their first brief. Christenson Brief, at 9-11. However, as Appellees PUC and CRWII argued in their responsive briefs, Christenson argued the wrong ARSD, as that did not apply to wind energy facilities, such as this Project.[17] The applicable ARSD in this case is the following:

> The applicant shall include an identification and analysis of the effects the construction, operation, and maintenance of the proposed facility will have on the anticipated affected area including the following:
>
> (1) A forecast of the impact on commercial and industrial sectors, . . . solid waste management facilities, . . . and other community and government facilities or services. . ..

ARSD 20:10:22:23 ("Community impact"). Christenson acknowledges the previous error, and then argues this "community impact" regulation in their reply brief. Christenson Reply Brief, at 2-4. Although the incorrect statute was cited, the issue of "solid waste" was argued initially.

[17] Christenson initially argued that CRWII did not comply with ARSD 20:10:22:31, which states "The applicant shall provide information concerning the generation, treatment, storage, transport, and disposal of solid or radioactive waste generated by the proposed facility and evidence that all disposal of the waste will comply with the standards and regulations of any federal or state agency having jurisdiction. . .." However, as PUC argued, ARSD 20:10:22:05 states that ARSD 20:10:22:26 to 20:10:22:33, inclusive, apply for a permit for an *energy conversion* facility. *See* SDCL § 49-41B-2(6) for the definition of an energy conversion facility. Rather, this regulation states that ARSD 20:10:22:33.01 and 20:10:22:33.02 apply for a permit for a *wind energy* facility.

Christenson's argument concentrates upon the issue of identifying, analyzing, and forecasting the end of life disposal of the Project's used blades, concrete, and other refuse. The Staff states that the Commission heard evidence on the future disposal of wind turbine blades and received assurance from CRWII that it would comply with the applicable laws for disposal, which could occur decades into the future. CRWII stated at the November 2020 hearing that the statute is limited to the construction, operation, and maintenance of the facility, and that there is nothing in it regarding the decommissioning or tearing down.

Appellees' arguments are more persuasive here. First, the testimonies provided repeated assurances that the Project would follow the applicable laws. Furthermore, in the Application, this ARSD was specifically addressed, and stated in part, "Construction and operation of the Project . . . is not anticipated to have significant short- or long-term effects on . . . solid waste management facilities." Ex. A1, page 93.

Second, the argument of "disposal" here appears moot. While the incorrect, previously cited ARSD 20:10:22:31 requires proper disposal, the correct, applicable ARSD 20:10:22:23 does not mention the words "disposal" or "decommissioning" at all. It specifically refers to a facility's "construction, operation, and maintenance." Christenson's argument here concerns the *end of life* of the Project, and not the *construction, operation, and maintenance* of the Project. This ARSD does not require specific plans for the *disposal* of blades and refuse; therefore, the Commission did not violate SDCL § 49-41B-22, ARSD 20:10:01:15.01, or ARSD 20:10:22:31.

Thus, regarding the issue of "solid waste," the Commission met its burden of proof and did not err when granting a permit to CRWII. Furthermore, because the Commission did not err in its decision, the question of prejudice need not be discussed for "solid waste."

Compliance with Grant County Ordinance

Christenson Appellants argue the following:

> Appellee PUC wrongly and prejudicially entered Finding of Fact No. 18 (FN. 24) in erroneously finding, in essence, that Appellee CRWII will be in compliance with applicable laws, including the Grant County Ordinance since, directly contrary to testimony by Jay Haley, that Appellee CRWII "complies with both versions of the Grant County Ordinance – the one in effect at the time of the approval of the Project by Grant County, and the one made effective shortly after the December 2018 CUP vote."

Christenson Brief, at 3. In the record, FOF 18 states the following:

> FOF 18. The evidence submitted by [CRWII] demonstrates that the Project will comply with applicable laws and rules.[18] Applicant committed that it will obtain all governmental permits which reasonably may be required by any township, county, state agency, federal agency, or any other governmental unit for the construction and operation activity of the Project prior to engaging in the particular activity covered by that permit.[19]

PUC Staff states that the Commission properly determined that the Project will comply with all applicable laws, specifically as it relates to compliance with the Grant County ordinance. Additionally, CRWII states that the record shows CRWII's commitment and ability to comply with the old and new Grant Country Sound Ordinance.

CRWII applied for its CUP for Grant County on September 17, 2018. On December 17, 2018, Grant County approved this CUP. The original ordinance was as follows:

> 13. Noise. Noise level shall not exceed 50 dBA, average A-weighted Sound pressure including constructive interference effects at the perimeter of the principal and accessory structures of existing off-site residences, businesses, and buildings owned and/or maintained by a governmental entity.

On December 28, 2018, the new ordinance was adopted, and on January 28, 2019, it became effective. The new ordinance was as follows:

> 14. Noise. Noise level shall not exceed 45 dBA, average A-weighted Sound pressure including constructive interference effects measured twenty-five (25) feet from the perimeter of the existing non-participating residences, businesses, and buildings owned and/or maintained by a governmental entity.

In addition to FOF 18, Christenson Appellants argue that FOF 46 is also clearly erroneous:

> 46. The record demonstrates that Applicant has appropriately minimized the sound level produced from the Project to the following: (1) no more than 45 dBA at any

[18] FOF 18 (Footnote 23): Ex. A1 at 72-76, 111-112 (Application) and Ex. A5 at 8-11 (Wilhelm Direct Testimony).
[19] FOF 18 (Footnote 24): At the evidentiary hearing, pro se Intervenor Christenson questioned whether Applicant was in compliance with the Grant County Ordinance in effect at the time Grant County voted to approve the Project or the Ordinance that was made effective after the County's vote to approve the Project. Applicant testified that Grant County has indicated it intends to apply the Ordinance made effective shortly after approval of the CUP for the Project. Evid. Hrg. Tr. at 47-49 (Wilhelm) (February 4, 2020). The record in this proceeding shows that Crowned Ridge Wind II complies with both versions of the Grant County Ordinance - the one in effect at the time of the approval of the Project by Grant County, and the one made effective shortly after the vote. Evid. Hrg. Tr. at 217-218, 233-234, 237-239 (Haley) (February 4, 2020); Exs. A2; A14; A21 (Haley Direct, Supplemental and Rebuttal Testimony); Ex. A14-1 through Ex. A14-4 (Supplemental Testimony Sound and Shadow Flicker Studies); Ex. A21-1 through Ex. A21-3; and Ex. A28 and Ex. 29 (Rebuttal Testimony Sound and Shadow Flicker Results); and Ex. AC-19. Therefore, the record shows that Crowned Ridge Wind II will be in compliance with applicable laws, including the Grant County Ordinance.

Filed: 3/15/2021 12:47 PM CST Deuel County, South Dakota 19CIV20-000027
- Page 1472 -

> non-participants' residence and (2) no more than 50 dBA at any participants' residence. . ..[20]

Christenson Brief, at 16. Christenson Appellants argue that Conclusion of Law 9, 13, and 15 are in error:

> COL 9. In the event the Project's contracted life is not extended, the record demonstrates that Applicant has appropriate and reasonable plans for decommissioning. The Project will be decommissioned in accordance with applicable state and county regulations. Applicant has agreed to Permit Condition No. 33 for purposes of decommissioning the Project.
>
> COL 13. Applicant must comply with the applicable requirements in the Deuel County, Grant County, and Codington County ordinances.
>
> COL 15. Based on the preponderance of the evidence presented to the Commission, the Commission concludes that all the requirements of SDCL § 49-41B-22 have been satisfied.

This court will not weigh the evidence or substitute its judgment for that of the PUC. Rather, it is this court's function to determine whether there was any substantial evidence in support of the PUC's conclusion or finding. The PUC found that CRWII followed the Grant County ordinance, and the findings, cited above, are supported by substantial evidence of reports, testimonies, and studies. CRWII held a valid CUP from Grant County. (AR 14235-14236). Furthermore, the Commission concluded the following:

> The evidence submitted by [CRWII] demonstrates that the Project will comply with applicable laws and rules. Applicant committed that it will obtain all governmental permits which reasonably may be required by any township, county, state agency, federal agency, or any other governmental unit for the construction and operation activity of the Project prior to engaging in the particular activity covered by that permit. The record demonstrates that construction and operation of the Project, subject to the Permit Conditions, meets all applicable requirements of SDCL Chapter 49-41B and ARSD Chapter 20:10:22.

Id. (AR 14235 footnotes citing record evidence omitted).

Christenson cites *In re Conditional Use Permit Granted to Van Zanten*, 1999 S.D. 79, 598 N.W.2d 861, and PUC counters that that case is inapplicable, as its facts and laws relate to a county

[20] FOF 46 (Footnote 98): Exs. A2; A14; A21 (Haley Direct, Supplemental and Rebuttal Testimony); Ex. A1-1 (Sound Modeling Report); Ex. A14-1 through Ex. A14-3 (Supplemental Testimony Sound Studies); Ex. A21-1; Ex. A21-3; Ex. A28, and Ex. 29 (Updated Rebuttal Sound Results).

zoning ordinance. This is an appeal from an *agency* decision, and not an appeal from a *county* decision. Because this issue is a *county* issue, and currently ongoing in case file 25CIV20-10, the Court will not address the validity of the CUP itself in this case.

Lastly, both Staff and CRWII argue in the alternative that no Appellants are prejudiced by these sound regulations of the Grant County ordinance. The Court refuses to weigh into this argument as it is unnecessary. Because the Commission did not err in its decision, the question of prejudice need not be discussed for this issue.

Aircraft Detection Lighting System (ADLS)

The Aircraft Detection Lighting System (ADLS) statute, effective on July 1, 2019, states the following:

> For any wind energy facility that receives a permit under this chapter after July 1, 2019, the facility shall be equipped with an [ADLS] that meets the requirements set forth by the Federal Aviation Administration [FAA]. . ..

SDCL § 49-41B-25.2 (in pertinent part). On April 6, 2020, the Commission issued its permit to CRWII (AR 14230-14258); therefore, this ADLS requirement applies to this permit.

Christenson Appellants argue the following:

> Appellee Commission committed error in violation of statutory provisions insofar as Applicant [CRWII] failed to meet the statutory requirements of SDCL § 49-41B-25.2 by and through its failure, at the time of the Commission's hearing on the merits of Appellee CRWII's wind energy facility permit, of being equipped with – or even having applied for – the necessary and statutorily required aircraft detection lighting system (ADLS).

Christenson Brief, at 16. Christenson argues that CRWII failed to even apply for ADLS by the time of the administrative hearing seeking approval (February 4-6, 2020), and that the Commission clearly erred in its Findings of Fact 18,[21] 30,[22] and 66.[23]

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[21] *See* Issue 1A: Compliance with Grant County Ordinance, *supra*.
[22] FOF 30. Applicant will install and use lighting required by the [FAA]. Applicant will equip the Project with a FAA-approved [ADLS] to minimize visual impact of the Project starting with the commercial operation date and for the life of the Project, subject to normal maintenance and forced outages.
[23] FOF 66. The Commission finds that the Project, if constructed in accordance with the Permit Conditions of this decision, will comply with all applicable laws and rules, including all requirements of SDCL Chapter 49-41B and ARSD Chapter 20:10:22.

The Court finds Christenson's argument to be misguided. The plain reading of the statute requires that CRWII, the applicant wind energy facility, which receives a permit, shall be equipped with an ADLS in compliance with the FAA. Christenson appears to argue that CRWII was not equipped with ADLS at the time of the permit, which is a clear misunderstanding of the statute.

Or, alternatively, Christenson argues that CRWII had no plan to install ADLS in its Application for its facility permit (submitted July 9, 2019) at the time of the Commission's Hearing (February 4-6, 2020). This would also be a misunderstanding of the statute, which says a facility that "receives a permit . . . shall be equipped" with an ADLS. Nothing in the statute requires the "merits" of the Applicant's permit being equipped or applied for an ADLS.

Furthermore, this point is moot. Findings of Fact 30 and 51, and Permit Condition 34, all state that CRWII will install and use ADLS in compliance with the FAA. CRWII points to Permit Condition 1 (Applicant will obtain all governmental permits which reasonably may be required by any governmental unit for construction and operation activity of the Project prior to operation) and Permit Condition 34 (Applicant shall apply to the FAA for approval to utilize an ADLS and allow enough time for a FAA determination and system construction prior to operation). FOF 51 requires the Applicant to illuminate the wind turbines as required by the FAA.

Therefore, regarding the ADLS, the Commission did not err when granting a permit to CRWII. Furthermore, because the Commission did not err in its decision, the question of prejudice need not be discussed for ADLS.

Sound and Air Quality Studies

A. Sound Study

Christenson Appellants argue the following:

> Appellee Commission failed to receive and consider Appellee [CRWII's] complete application for a wind energy facility permit through the time of the evidentiary hearing herein contrary to the requirements of South Dakota law, pursuant to SDCL § 49-41B-22(3), including the submission for review of a pre-construction sound or health study in each (or any) of the adversely affected counties.

Christenson Brief, at 18. Staff responds that Applicant met is burden of proof with respect to SDCL § 49-41B-22(3). CRWII responds that it carried its burden that the Project will not substantially impair the health or welfare of inhabitants.

South Dakota law states that the "applicant has the burden of proof to establish by a preponderance of the evidence that . . . the facility will not substantially impair the health, safety or welfare of the inhabitants. . .." SDCL § 49-41B-22(3).

Christenson Appellant states that "[a]lthough four (4) proposed experts appeared and gave testimony and evidence at the evidentiary hearing for Appellee CRWII, no infrasound or low frequency sound study was requested to be conducted, nor any study submitted to Appellee PUC for evidentiary analysis and review." Christenson Brief, at 19.

Staff responds that (1) there is no legislative directive as to how an applicant must establish that a project will not substantially impair the health and welfare of the community; and (2) there is no rule that mandates how the applicant must satisfy the burden. Staff's Brief, at 11. Staff then states that the Commission found sufficient evidence in the record to demonstrate that "the sound from the Project would not substantially impair the health and welfare of the community." *Id.*, (Findings of Fact 68, AR 14244). This finding was supported by substantial evidence in the record, including "expert testimony from both health experts and acousticians, with no corresponding intervenor testimony to contradict these experts." *Id.*

Again, the statute, SDCL § 49-41B-22, does not require an act that Appellants claim exists. Rather, it simply states that CRWII must prove its facility will not substantially impair the health, safety or welfare of the inhabitants. As Staff argued, there are no specific mandates on completing this task.

Therefore, regarding the sound study, the Commission did not err when granting a permit to CRWII. Furthermore, because the Commission did not err in its decision, the question of prejudice need not be discussed for the sound study.

B. Air Quality Study

Christenson Appellants argue that "contrary to the regulatory requirements of ARSD 20:10:22:21, no air quality study was requested nor submitted to Appellee PUC for review." Christenson's Brief, at 20. This ARSD states the following:

> The applicant shall provide evidence that the proposed facility will comply with all air quality standards and regulations of any federal or state agency having jurisdiction and any variances permitted.

ARSD 20:10:22:21.

CRWII argues that in its Application, it explained in detail that the Project's operations did not implicate air quality standards. CRWII's Brief, at 30. (AR 99-100). The Commission concluded "The evidence further demonstrates that there are no anticipated material impacts to existing air and water quality, and the Project will comply with applicable air and water quality standards and regulations." *Id.*; (AR 14237).

This ARSD does not require that an air quality study be submitted, only that it would comply with standards and regulations. Therefore, regarding the air quality study, the Commission did not err when granting a permit to CRWII. Furthermore, because the Commission did not err in its decision, the question of prejudice need not be discussed for the air quality study.

As to each of these issues raised the Commissions finding that the applicant has met its burden of proof as to the applicable rules and laws and that the Project will not negatively impact the health and welfare of the inhabitants was not clearly erroneous and is affirmed by this court.

PART II: EHLEBRACHT APPELLANTS

This court's role, in this procedural appeal, is to determine whether the regulatory agency was clearly erroneous or not in its findings. This court will not address the arguments of easements or takings, the histories of regulatory limitations of shadow flicker borrowed from German standards, or whether this is a discharge of light in accordance with SDCL § 43-13-2(8). This is not the proper place nor time for these arguments. This court does not have the jurisdiction to hear these argument, rendering them moot in this appeal. The court does however, address the following issues raised by Ehlebracht Appellants.

Minimal Adverse Effect

Ehlebracht Appellants argue the following issue:

> Whether the Agency, authorized to promulgate rules concerning wind energy conversion facilities (SDCL § 49-41B-35) but adopting no relevant rules as to the meaning of "minimal adverse effect," may proceed on a case-by-case or *ad hoc* basis to permit a burden of "effects" upon both citizens and their properties under

> variable regulatory limits developed by others, including those interested in the promotion of wind development.

Ehlebracht Brief, at 2, 12. This South Dakota statute states the following:

> To implement the provisions of this chapter regarding facilities, the commission shall promulgate rules pursuant to chapter 1-26. Rules may be adopted by the commission:
>
> (1) To establish the information requirements and procedures that every utility must follow when filing plans with the commission regarding its proposed and existing facilities;
> (2) To establish procedures for utilities to follow when filing an application for a permit to construct a facility, and the information required to be included in the application; and
> (3) To require bonds, guarantees, insurance, or other requirements to provide funding for the decommissioning and removal of a solar or wind energy facility.

SDCL § 49-41B-35 ("Promulgation of rules").

Ehlebracht's argument of the *ad hoc* basis is that the Commission has permitted more stringent standards for other wind energy facilities, specifically Prevailing Wind Park,[24] than others, such as the CRWII Project here. These standards include "effects" such as noise and shadow flicker.

Staff argues that the Commission is not required to promulgate rules defining "minimal adverse effects," but rather is permitted this rulemaking authority. Staff's Brief to Ehlebracht, at 7. Furthermore, Staff argues that the state statute instructs the Commission to review permit applications on case-by-case or ad hoc bases.[25] CRWII likewise makes the same argument, the Commission has discretion, not the legal obligation to adopt rules. CRWII's Brief, at 8-9.

The state statutes and ARSD clearly permit the Commission to adopt rules and procedures. Ehlebracht's argument here focuses on requiring the Commission to adopt a standard that applies to all windfarms. Currently, the laws require that the Commission defers to local county ordinances. As evidenced within this case itself, there are three counties (Codington, Deuel, and Gran), each with their own separate standards.

[24] This wind energy facility is in Bon Homme, Yankton, and Charles Mix counties.
[25] *See* SDCL §§ 49-41B-11 through 49-41B-25, inclusive.

Therefore, regarding this issue, the Commission did not err when granting a permit to CRWII. Furthermore, because the Commission did not err in its decision, the question of prejudice need not be discussed for this issue.[26]

Issue 2: Easements and Servitudes

Ehlebracht Appellants argue the following issue:

> Whether SDCL § 43-13-2, "Easements and Servitudes," applies to the land and property interests of Appellants, bearing on the Applicant's claimed right to hereafter discharge adulterated light (in the form of Shadow Flicker, along with other Effects) onto and into the dwellings and lands of appellants, given that the Agency's Decision offers or affords approval of such discharge but without the required consent of the fee owner.

Ehlebracht Brief, at 18. This South Dakota statute states the following:

> The following land burdens or servitudes upon land may be attached to other land as incidents or appurtenances, and are called easements:
> . . .
> (8) The right of receiving air, light, or heat from or over, or discharging the same upon or over land . . .

SDCL § 43-13-2(8).

Ehlebracht Appellants argue that the right to discharge light upon or over land is an affirmative easement. Ehlebracht Brief, at 21. Staff argues that the "Commission is not a court of general jurisdiction and has no authority to assess property rights, nor waive any underlying law, ordinance or regulation that otherwise applies to the construction of wind turbines." Staff's Ehlebracht Brief, at 12. CRWII argues that this statute "is wholly outside the statute the Legislature enacted for the Commission to administer." CRWII's Brief, at 20; *Northwestern Bell Tel. Co. v. Chicago & N.W. Transp.*, 245 N.W.2d 639, 641 (S.D. 1976) ("The Public Utilities Commission is an administrative body authorized to find and determine facts, upon which the statutes then operate. It is not a court and exercises no judicial functions").

[26] Ehlebracht Appellants also casually state that the equal protection laws are violated (Art. 6, 18, S.D. Const.; 14th Amendment, U.S. Const.). The Court finds this argument without merit, as it does not provide evidence aside for claims that one county ordinance has a more stringent ordinance than that of another county on the other side of the state.

Here, the Court agrees with the appellees that this issue is outside its jurisdiction. This court's role, in this procedural appeal, is to determine whether the regulatory agency was clearly erroneous or not in its findings. Therefore, regarding this issue, the Court will not weigh into the question of easements.

Taking and *Per Se* Nuisance

Ehlebracht Appellants argue the following issue:

> Whether the exercise of the Agency's permitting authority under Chapter 49-41B, SDCL, giving approval for the casting of Effects over the homes and lands of Non-Participants, but without an easement being conferred in favor of Applicant and without the provisions of SDCL § 21-35-31 having been invoked, is a taking of Appellants' private property interests?

Ehlebracht Brief, at 27. Ehlebracht Appellants state that they will be subject to the Effects given off by the Project (such as noise and shadow flicker). Without the appellants granting permission, this would in effect "accomplish[] a *taking* of the property interests of these Appellants." *Id.*, at 29.

Staff argues that the Commission's order granting CRWII a permit to construct a wind energy facility is not a taking or a *per se* nuisance. Regarding a "taking," Ehlebracht fails each of the four theories under South Dakota case law. *Benson v. State*, 710 N.W.2d 131, 149 (S.D. 2006) (a regulatory physical taking; a permanent physical invasion of property; depriving owner of all economically beneficial uses of property; and a land-use exaction violating standards). Regarding *per se* nuisance, Staff argues that Ehlebracht's claim is not ripe, nor do the appellants submit sufficient evidence for the court to determine a taking has occurred. *See Boever, v. South Dakota Bd. of Accountancy*, 526 N.W.2d 747 (S.D. 1995). CRWII argues that the per se nuisance is insufficient to create a ripe controversy. *See Boever*, 526 N.W.2d at 750.

The Court here agrees with Appellees' arguments. Ehlebracht has not established that noise and shadow flicker is a taking under South Dakota law, and the per se nuisance is not ripe for controversy. Therefore, the court will not address either of these issues.

CONCLUSION

Considering the Commission's findings, inferences, and conclusions, the Commission was not clearly erroneous and did not abuse its discretion in granting the permit to Crowned Ridge II. The Commission's decision was supported by extensive findings and conclusions that were supported by an exhaustive and complete administrative record. Therefore, the court affirms the Commission's decision and denies all of issues raised by each group of Appellants (Christensen and Ehlebracht). Counsel for the Appellee is directed to prepare an Order affirming the Decision of the Public Utilities Commission.

BY THE COURT:

Dawn Elshere
Circuit Court Judge
Third Judicial Circuit

Filed: 3/15/2021 12:47 PM CST Deuel County, South Dakota 19CIV20-000027
- Page 1481 -

STATE OF SOUTH DAKOTA) :SS		IN CIRCUIT COURT
COUNTY OF DEUEL)		THIRD JUDICIAL CIRCUIT
In the Matter of Administrative Appeal of AMBER K. CHRISTENSON, and ALLEN ROBISH, Appellants,	*	19CIV20-000027
vs.	*	***NOTICE OF APPEAL and STAY OF EXECUTION of JUDGMENT and ORDER***
SOUTH DAKOTA PUBLIC UTILITIES COMMISSION, and CROWNED RIDGE WIND II, LLC, Appellees.	*	

TO: AMANDA REISS and/or KRISTEN EDWARDS, ATTORNEYS FOR APPELLEE S.D. PUBLIC UTILITIES COMMISSION; and, MILES SCHUMACHER and DANA VAN BEEK PALMER, LYNN JACKSON SHULTZ & LEBRUN, P.C., FOR APPELLEE CROWNED RIDGE WIND II, LLC.

PLEASE TAKE NOTICE that Appellants, Amber Christenson and Allen Robish, hereby appeal to the Supreme Court of South Dakota, the Order Affirming Decision of South Dakota Public Utilities Commission entered by Circuit Court Judge Dawn Elshere, as signed/filed on March 12, 2021, and for which Notice of Entry of Judgment was filed by or for Appellees herein on March 15, 2021, in the above-entitled action; and

NOTICE IS FURTHER GIVEN that Appellants, Christenson and Robish, to any extent necessary, hereby assert their right to a statutory stay, if applicable herein, from and as related to said lower Court's Order, pursuant to SDCL §15-26A-25 in conjunction with SDCL §15-6-62(b) or §15-6-62(d) and/or §15-6-62(f) pending final determination by the South Dakota Supreme Court in said appeal.

Dated this 12th day of April, 2021.

/s/ R. Shawn Tornow
R. Shawn Tornow, for
Tornow Law Office, P.C.
PO Box 90748
Sioux Falls, SD 57109-0748
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E-mail: rst.tlo@midconetwork.com
Attorney for Appellants

STATE OF SOUTH DAKOTA) :SS		IN CIRCUIT COURT
COUNTY OF DEUEL)		THIRD JUDICIAL CIRCUIT
In the Matter of Administrative Appeal of AMBER K. CHRISTENSON, and ALLEN ROBISH, Appellants,	*	19CIV20-000027
vs.	*	*CERTIFICATE OF SERVICE*
SOUTH DAKOTA PUBLIC UTILITIES COMMISSION, and CROWNED RIDGE WIND II, LLC, Appellees.	*	

I, R. Shawn Tornow, do hereby certify that on this 12th day of April, 2021, a true and correct copy of Appellants' Notice of Appeal and Stay, Docketing Statement and Order for Transcript for any Transcript(s) of Proceedings were served by e-mail through the Odyssey File and Serve program; or, if necessary (if the system may not be operating), by first class mail, postage prepaid, to the attention of the following person(s) at the address(es) indicated:

NAME:	ADDRESS:
Crowned Ridge Wind II, LLC, Appellee	Miles F. Schumacher, Dana Van Beek Palmer Lynn Jackson Shultz & Lebrun, P.C. 110 N. Minnesota Ave., Ste 400 Sioux Falls, SD 57104 Telephone: (605) 332-5999 E-mail: mschumacher@lynnjackson.com E-mail: dpalmer@lynnjackson.com *Attorney(s) for Appellee, Crowned Ridge Wind II*
S.D. Public Utilities Commission, Appellee	Amanda R. Reiss, or Kristen N. Edwards South Dakota Public Utilities Commission 500 E. Capitol Ave. Pierre, SD 57501 Telephone: (605) 773-3201 E-mail: amanda.reiss@state.sd.us *Attorney(s) for Appellee, S.D. PUC*

/s/ R. Shawn Tornow
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Attorney for Appellants

IN THE SUPREME COURT
OF THE
STATE OF SOUTH DAKOTA

* * * \

S.D. Public Utilities Commission, Appellee	Amanda M. Reiss Special Assistant Attorney General S.D. Public Utilities Commission 500 E. Capitol Ave. Pierre, SD 57501 Telephone: (605) 773-3201 E-mail: amanda.reiss@state.sd.us One of the Attorney(s) for the S.D. PUC

SECTION B

TIMELINESS OF APPEAL

(If Section B is completed by an appellee filing a notice of review pursuant to SDCL 15-26A-22, the following questions are to be answered as they may apply to the decision the appellee is seeking to have reviewed.)

1. The date the judgment of order appealed from was signed and filed by the trial court: March 12, 2021

2. The date the Circuit Court's order was served on Appellant(s): March 15, 2021

3. State whether either of the following motions was made:

   a. Motion for judgment n.o.v., SDCL 15-6-50(b): ___ Yes X No

   b. Motion for new trial: SDCL 15-6-59: ___ Yes X No

NATURE AND DISPOSITION OF CLAIMS

4. State the nature of each party's separate claims, counterclaims or cross-claims and the trial court's disposition of each claim (e.g., court trial, jury verdict, summary judgment, default judgment, agency decision, affirmed/reversed, etc.).

Appellant, Allen Robish, has been a taxpaying property owner and resided on his property at 47278 161st Street, Strandburg, South Dakota in Grant County since 1981. Appellant, Amber Christenson, has been a taxpaying property owner and resided on her property at 16217 466th Avenue, Strandburg, South Dakota in Codington County since 1994. Robish and Christenson, became Appellants herein by and through their intervention in the hearing and/or administrative appeal proceedings below. In the case below, however, as adversely affecting and/or directly infringing on Appellants' property rights, Crowned Ridge Wind-II, LLC, as a wholly owned indirect subsidiary of NextEra Energy Resources, LLC, filed its Application with the Commission on July 9, 2019, for a Wind Facility Permit for a wind energy conversion facility to be located in in Codington, Grant and Deuel Counties. *See*, AR pgs. 000001, 000011. The proposed Application below indicated that the Project was to include up to 132 wind turbine generators,

access roads to turbines and associated facilities, underground 34.5-kilovolt (kV) electrical collector lines, underground fiber-optic cable, a 34.5-kV to 230-kV collection substation, two permanent meteorological towers, and an operations and maintenance facility. As set forth within the Appellee CRW-II's Application, Crowned Ridge Wind-II has entered into a purchase and sale agreement under which it planned to obtain the permit herein and construct the Project and later transfer the Project, along with its facility permits to Northern States Power Company. AR pgs. 000011. Pursuant to state statute then, the Commission was required to issue a written decision within only nine (9) months of receiving Appellee CRW-II's Application.

After receipt of the Application below, the Commission received several applications for party status. As applicable herein, party status was thereafter granted for Amber Christenson and Allen Robish, as Intervenors/Appellants herein, at the Commission's regularly scheduled meeting on July 25, 2019; and in addition, on August 21, 2019, Intervenor status was also granted to at least five (5) additional persons, Garry Ehlebracht, Steven and Mary Greber, Richard and Amy Rall and Laretta Kranz, all being represented by attorney A.J. Swanson (who have - most recently - jointly appealed to this Court as well), at the Commission's regularly scheduled meeting.

In the proceedings below, Commission scheduled a public input meeting for August 26, 2019, in Watertown, S.D., during which Appellee CRW-II was to present a brief description of the proposed wind energy facility project to those persons interested in the same and said persons would be permitted to present their views, comments and questions regarding the Application. The Commission also set the deadline for party status (i.e., intervention deadline) for September 9, 2019.

Thereafter, on September 17, 2019, during the PUC's regular meeting proceedings below, the Commission entered a procedural schedule requiring intervenors to submit pre-filed testimony by December 9, 2019, and indicating for the parties to provide witness lists, exhibit lists, and pre-filed by January 29, 2020. Thereafter, the administrative (evidentiary) hearing was scheduled for February 4-7, 2020. *See*, February 4th: AR pgs. 8844-9133; February 5th: AR pgs. 13309-13625; February 6th: AR pgs. 13630-13771. It was also within and as a part of its pre-hearing meeting (January 29, 2020) that the Commission denied the Motion by Appellee CRW-II attempting to make confidential Section 11.10, the effects clause of the lease(s) offered by the wind farm developer to potential project participants.

Early in the PUC's evidentiary hearing on February 4, 2020, the hearing parties agreed to the admission of all pre-filed and hearing-related exhibits for foundation purposes. Appellee CRW-II then presented their witnesses and corresponding testimony for Applicant. As part of cross-examination of Applicant's initial witness, senior project manager Tyler Wilhelm, who was responsible for the development, permitting, regulatory compliance and meeting the commercial operations date of the project, Intervenor Christenson presented and had admitted into the hearing exhibit AC-18, which was actually the Grant County ordinance in effect at the time the Grant County Conditional Use Permit Application was made and approved in 2018. *See*, AR pgs. 8727, 8796; *cf.*, AR pgs. 13074-13112. Ultimately, however, Wilhelm made a key admission (which was - for all practical purposes - ignored below) insofar as his admission that that Appellee CRW-II's project was actually "in compliance" with the different/less stringent requirements that Grant County was "working toward adopting" in ordinance to be in effect on and after January 28, 2019 [i.e., for instance in Grant County, [w]ind turbine noise levels at the less stringent - inapplicable - ordinance requirements of less than 45 dBA "measured twenty-five (25) feet from the perimeter of existing non-participating residences, businesses and buildings..."[1]] AHT pgs. 46-55; AR pgs. 8891-8900.

It's noteworthy to reiterate that Appellee CRW-II's project is to be built in three northeast South Dakota counties: Deuel, Codington and Grant. Ordinances vary between counties in distance and noise, in particular. Not only does each county vary in its siting distance and noise threshold, but within each county there are separate distances and thresholds for residents within each county, depending on where the residence is located. Equal protection is not applied to each principal and/or accessory structure(s) in the negatively impacted area of this project. Moreover, as borne out at hearing, Appellee CRW-II failed to provide any evidence on and to include in its key sound study information related to 179 sound receptors (structure locations) in the

[1] *See*, Exhibit A19-3, [new] Grant County Ordinance Section 14: <u>Noise</u>. AR pgs. 3207-3215; as compared to Exhibit AC-18 at AR pg. 8796: "Noise level shall not exceed 50 dBA ... at the perimeter of the principal <u>and</u> <u>accessory structures</u> of existing off-site residences, businesses and buildings..." [Emphasis added.] *See/cf.*, Exhibit A, for ease of comparison of the applicable (2018) Grant Co. noise/sound ordinance provision vs. the inapplicable (2019) Grant Co. noise/sound ordinance provision, as attached hereto and incorporated herewith in full as part of Appellants' Brief.

adversely impacted/damaged area.[2]

In addition, later in the PUC's evidentiary hearing, despite knowing that such a facility, pursuant to state statute, can "not substantially impair the health, safety or welfare of [neighboring occupants]" – Applicant, Appellee CRW-II, presented proposed experts who are capable of conducting air quality studies, yet its witnesses seemingly acknowledged that no air quality study was published or submitted, nor, as it was disclosed, did Applicant provide plans to complete an air quality study of the project area. AHT pgs. 313-314; AR pgs. 13373-13374.[3]

Moreover, it was also learned at hearing that, as part of its permit request and prior to the administrative hearing herein, Appellee CRW-II had failed to even apply for the necessary and statutorily required aircraft detection lighting system (hereinafter referenced as "ADLS", where appropriate).[4] That is, Tyler Wilhelm also testified at

---

[2] *See*, Jay Haley testifying for Appellee CRW-II, Q: "[The CUP] was passed under the old [Grant County] ordinance. So who directed you to drop the accessory structures? A: I don't recall, but -- I can tell you that when -- at the time that the accessory structures were a part of the ordinance we calculated -- we went out and surveyed all of the accessory structures, and I calculated all of them and produced reports with those results. [However] [w]hen the ordinance got changed, I then took all the accessory structures back out." AHT pgs. 233-234; 237-238; AR pgs. 9078-9079; 9082-9083. As a result, Appellee CRW-II could not persuasively testify at hearing in February 2020 that the projected wind farm noise levels would not exceed the new 45 dBA local ordinance requirement. In fact, Exhibit AC-19 (AR pgs. 8686-8723, at pg. 8694 & pgs. 8705-8710) actually indicates that, directly contrary to Appellee PUC's Finding of Fact Nos. 18 & 46, there were and are, in fact, *over fifty* (*50*) locations/structures where the realistic sound would, as shown by and through Appellee CRW-II's own Final Report as to both CRW-I and CRW-II, fall into/exceed that locally prohibited 45-50 dBA range.

[3] *See*, Applicant's witness Rich Lampeter was asked by Intervenor/Appellant Christenson: "Q: Did Crowned Ridge Wind II ask you to perform a preconstruction sound modeling study? A: Yes. That study was conducted and they requested it. Q: And that's the study you were talking about that's not been published or submitted? A: That's correct. We went and collected the data and *put together some draft summary findings*, and that's where it currently stands. ... Q: Did Crowned Ridge Wind II ask you to perform any studies or modeling regarding low frequency noise or infrasound. A: *No*. Q: According to your resume, you have experience in air quality modeling. Did Crowned Ridge Wind II ask you to perform any air quality study or model for this project? A: *No*." [2/5/2020, AHT, page 314]; *see also*, ARSD 20:10:22:21: The applicant *shall provide evidence* that the proposed facility will comply with air quality standards and regulations of any federal or state agency having jurisdiction and any variances permitted. [Emphasis added.]

[4] *See*, § 49-41B-25.2: For any wind energy facility that receives a permit under this chapter after July 1, 2019, the facility *shall be equipped with an aircraft detection lighting system* that meets the requirements set forth by the Federal Aviation Administration for obstruction marking and lighting in Chapter 14 of FAA Advisory Circular (AC) 70/7460-1L, "Obstruction Marking and Lighting," dated December 4, 2015. Any cost associated with the installation, operation, or maintenance of a system under this section is solely the responsibility of any owner of the wind energy facility. [Emphasis added.]

hearing before the Commission that they were not (yet) applying for ADLS approval from the FAA; however, they were "targeting" in their planning to do that in April 2020 – after the PUC's permit decision.[5] In sum, as part of this record, Appellee CRW-II, as the Applicant before the PUC, among other key issues, specifically fell short in establishing by a preponderance of the evidence that it had the required approval *and* necessary operability[6] of ADLS lighting related to the turbines in/for this wind farm project as required by SDCL § 49-41B-25.2.

Prior to its decision, the circuit court review/argument hearing in this matter, by and through oral argument, took place on November 23, 2020, and, following such hearing/argument, the Court below entered its Memorandum Decision on February 26, 2021, and thereafter filed its corresponding Order on March 12, 2021. Thereafter, Appellee prepared and served its Notice of Entry herein on Appellants on March 15, 2021. This appeal as a matter of right follows.

5. Appeals of right may be taken only from final, appealable orders. See, SDCL 15-26A-3 and 15-26A-4.

a.	Did the trial court enter a final judgment or order that resolves all of each party's individual claims, counterclaims, or cross-claims?	X Yes __ No
b.	If the trial court did not enter a final judgment or order as to each party's individual claims, counterclaims, or cross-claims, did the trial court make a determination and direct entry of judgment pursuant to SDCL 15-6-54(b)?	N/A

[5] Actually, the record below merely reflected that Appellee CRW-II, indicated to the PUC on March 17, 2020 at Appellee PUC's post-hearing final proceedings that it had submitted such application on or about March 12, 2020. *See*, Wilhelm testimony, AHT pgs. 76-77 and AHT pgs. 86-87 [AR pgs. 8921-8922; AR pgs. 8931-8932]; *cf.*, March 17, 2020, AHT pgs. 7-8; 11-12.

[6] As of early June 2020, Crowned Ridge Wind acknowledged to Appellee PUC that there was, in fact, "an issue with the communication with the on-site ADLS server" and that a "subject matter expert [wa]s investigating the issue [with the ADLS]." *See*, June 9, 2020, filed letter to PUC; following fine imposed by Appellee PUC on Crowned Ridge Wind based on a lack of operational ADLS, as noted in the public PUC docket, EL 20-002. https://puc.sd.gov/Dockets/Electric/2020/EL20-002.aspx.

6. State each issue intended to be presented for review.
(Parties will not be/are not bound by these statements.)

1.) *Whether the trial court's decision below amounted to reversible error based on the provisions of SDCL § 1-26-36, in part, since Applicant/Appellee Crowned Ridge Wind II (hereinafter "CRW-II) failed to meet its burden of proof and/or its burden of going forward as required by SDCL § 49-41B-22 and/or ARSD 20:10:01:15.01?*

2.) *Whether the trial court's decision below amounted to reversible error insofar as Applicant/Appellant failed to carry its burden of proof by its failure to establish compliance with the mandatory provisions of ARSD 20:10:22:23 by and through its failure to first identify and analyze the adverse "effects the construction, operation and maintenance" the then-proposed facility would have on the anticipated affected area?*

3.) *Whether the trial court's decision below amounted to reversible error insofar as Applicant/Appellant admittedly failed to carry its burden of proof by its failure to establish compliance with all applicable laws and rules since it relied on an erroneous version of the Grant County Ordinance, not in effect at the time of its 2018 locally approved Conditional Use Permit ("CUP")?*

4.) *Whether the trial court's decision below amounted to reversible error insofar Appellee Commission below failed to receive and consider Appellee CRW-II's complete application for a wind energy facility permit through the time of its evidentiary hearing contrary to the requirements of South Dakota law, based upon SDCL 49-41B-22 (3), including the required submission for review of a pre-construction sound or health study in each (or any) of the adversely affected counties.*

Dated: April 12, 2021.

/s/ R. Shawn Tornow

R. Shawn Tornow, for
Tornow Law Office, P.C.
PO Box 90748
Sioux Falls, SD 57109-0748
Telephone: (605) 271-9006
Attorney for Appellants, Christenson & Robish

*Trial Court's February 26, 2021, Memorandum Decision, including the Court's March 12, 2021, Order and Appellees' March 15, 2021, Notice of Entry, are appropriately attached hereto and incorporated herewith by this reference and Appellants herein join, to any extent necessary, with their fellow Appellants (Ehlebracht, Greber, et. al.) and their parallel appellate filings on April 6, 2021, and all related attachments thereto as filed with the Court on or about April 6, 2021.

STATE OF SOUTH DAKOTA) : SS COUNTY OF DEUEL)	IN CIRCUIT COURT THIRD JUDICIAL CIRCUIT
IN THE MATTER OF ADMINISTRATIVE APPEAL GARRY EHLEBRACHT, STEVEN GREBER, MARY GREBER, RICHARD RALL, AMY RALL AND LARETTA KRANZ and AMBER KAYE CHRISTENSON AND ALLEN ROBISH, Appellants, v. CROWNED RIDGE WIND, LLC AND SOUTH DAKOTA PUBLIC UTILITIES COMMISSION, Appellees.	19CIV20-000021, and 19CIV20-000027 **NOTICE OF ENTRY** **OF ORDER**

NOTICE IS HEREBY GIVEN that on March 12, 2021, the Honorable Dawn Elshere, Circuit Court Judge of the Third Judicial Circuit, signed an Order affirming the Decision and Order of the South Dakota Public Utilities Commission, which Order was entered and filed on March 12, 2021. Attached hereto and served herewith is a true and correct copy of said Order.

Filed: 3/15/2021 12:47 PM CST Deuel County, South Dakota 19CIV20-000027
Filed: 4/12/2021 8:02 PM CST Deuel County, South Dakota 19CIV20-000027

Dated this 15th day of March, 2021.

LYNN, JACKSON, SHULTZ & LEBRUN, P.C.

Miles F. Schumacher
Dana Van Beek Palmer
Attorneys for Defendants
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Filed: 3/15/2021 12:47 PM CST Deuel County, South Dakota 19CIV20-000027
Filed: 4/12/2021 8:02 PM CST Deuel County, South Dakota 19CIV20-000027
- Page 1493 -

CERTIFICATE OF SERVICE

I hereby certify that true and correct copies of the **Notice of Entry of Order** affirming the Decision and Order of the South Dakota Public Utilities Commission were served electronically to the Parties listed below, on the 15th day of March, 2021, through the Odyssey file and serve system:

Mr. A.J. Swanson
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Dated this 15th day of March, 2021.

Miles F. Schumacher

Filed: 3/15/2021 12:47 PM CST Deuel County, South Dakota 19CIV20-000027
Filed: 4/12/2021 8:02 PM CST Deuel County, South Dakota 19CIV20-000027
- Page 1494 -

STATE OF SOUTH DAKOTA) : SS COUNTY OF DEUEL)	IN CIRCUIT COURT THIRD JUDICIAL CIRCUIT
IN THE MATTER OF ADMINISTRATIVE APPEAL GARRY EHLEBRACHT, STEVEN GREBER, MARY GREBER, RICHARD RALL, AMY RALL AND LARETTA KRANZ and AMBER KAYE CHRISTENSON AND ALLEN ROBISH, Appellants, v. CROWNED RIDGE WIND, LLC AND SOUTH DAKOTA PUBLIC UTILITIES COMMISSION, Appellees.	19CIV20-000021, and 19CIV20-000027 **ORDER**

Appellants Garry Ehlebracht, Steven Greber, Mary Greber, Richard Rall, Amy Rall, and Laretta Kranz having appealed from the South Dakota Public Utilities Commission's Final Decision and Order Granting Permit to Construct Facility in EL 19-027, and Appellants Amber Christenson and Allen Robish having separately appealed as a part of their separate issues in both Codington County and Grant County, and with the appeals being thereafter combined for purposes of judicial economy, and with all parties having appeared by and through their respective counsel of record, and the Court having considered the Briefs submitted by all parties as well as all arguments of counsel, and the Court having

Filed on: 03/12/2021 DEUEL County, South Dakota 19CIV20-000027
Filed: 3/15/2021 12:47 PM CST Deuel County, South Dakota 19CIV20-000027
Filed: 4/12/2021 8:02 PM CST Deuel County, South Dakota 19CIV20-000027

issued its Memorandum Opinion on February 26, 2021, which is attached as Exhibit A and incorporated herein by this reference, it is hereby,

ORDERED, ADJUDGED and DECREED that the Decision and Order of the South Dakota Public Utilities Commission, entered April 6, 2020, is affirmed.

Signed: 3/12/2021 10:56:19 AM

Dated this _____ day of March, 2021.

BY THE COURT:

Honorable Dawn Elshere
Circuit Court Judge
Third Judicial Circuit

Attest:
Reichling, Sandy
Clerk/Deputy

Filed on: 03/12/2021 DEUEL County, South Dakota 19CIV20-000021

Filed: 3/15/2021 12:47 PM CST Deuel County, South Dakota 19CIV20-000027
Filed: 4/12/2021 8:02 PM CST Deuel County, South Dakota 19CIV20-000027

STATE OF SOUTH DAKOTA	)	IN CIRCUIT COURT
	:SS	
COUNT OF DEUEL	)	THIRD JUDICIAL CIRCUIT

IN THE MATTER OF ADMINISTRATIVE APPEAL GARRY EHLEBRACHT, STEVEN GREBER, MARY GREBER, RICHARD RALL, AMY RALL, AND LARETTA KRANZ

And

AMBER KAYE CHRISTENSON AND ALLEN ROBISH,

Appellants,

Vs.

CROWN RIDGE WIND, LLC AND SOUTH DAKOTA PUBLIC UTILITIES COMMISSION,

Appellees

19CIV20-21 and 20-27

MEMORANDUM OPINION

INTRODUCTION

This matter comes before the circuit court on appeal by Appellants Amber Christenson and Allen Robish (collectively "Christenson Appellants")[1], Appellants Garry Ehlebracht, Steven Greber, Mary Greber, Richard Rall, Amy Rall, and Laretta Kranz (collectively "Ehlebracht Appellants")[2], appealing the South Dakota Public Utilities Commission Staff's (the "Commission's" or "Staff's") Final Decision and Order Granting Permit to Construct Facility in EL 19-027 dated April 6, 2020. (AR 14230-14258), Final Decision and Order Granting Permit to Construct Facility, Permit Conditions, Notice of Entry (Permit)).[3]

[1] Christenson Appellants – 19CIV20-27
[2] Ehlebracht Appellants – 19CIV20-21.
[3] All citations to the administrative record are referenced as "AR".

Exhibit A

Filed: 3/15/2021 12:47 PM CST Deuel County, South Dakota 19CIV20-000027
Filed: 4/12/2021 8:02 PM CST Deuel County, South Dakota 19CIV20-000027

STATEMENT OF JURISDICTION

The Christenson Appellants appeal from Commission's April 6, 2020, Final Decision and Order Granting Permit to Construct Facility; Permit Conditions; and Notice of Entry as related to its issuance of a wind energy facility permit to CRWII, pursuant to SDCL § 1-26-30, as provided for by SDCL § 49-41B-30. Appellants each timely and properly filed their respective Notice of Appeals on May 1, 2020, and May 5, 2020, in both Codington and Grant Counties, South Dakota. Thereafter, following Commission's unopposed motion to change venue (May 11, 2020), the circuit court entered its Order changing venue herein (May 19, 2020), pursuant to SDCL § 1-26-31.1. This Court ordered that the Intervenors files would be thereafter combined into this appellate file, 19CIV20-27.

The Ehlebracht Appellants appeal from the same April 6, 2020, Final Decision and Order, as related to its issuance of a wind energy facility permit to CRWII, pursuant to SDCL § 1-26-30, as provided for by SDCL § 49-41B-30. Appellants timely and filed their Notice of Appeal on April 29, 2020, in Deuel County, South Dakota.

STATEMENT OF FACTS

On July 9, 2019, Crowned Ridge Wind II, LLC[4] ("Applicant", "Crowned Ridge", or "CRWII") submitted its application for a facility permit for a 300.6-megawatt (MW) wind energy facility to consist of up to 132 wind turbines in Deuel, Grant, and Codington counties (the "Project").[5] (AR 14230-14258). Within its application, CRWII submitted written testimony from six witnesses.[6] (AR 1-1118, 3233-3254). The commercial operation date of the Project was estimated to be in the fourth quarter of 2020. (AR 11).

On July 11, 2019, the Staff issued the Notice of Application; Order for and Notice of Public Input Hearing; and a Notice for Opportunity to Apply for Party Status and established an intervention deadline of September 9, 2019. (AR 1122-1123).

On July 31, 2019, the Commission issued an order granting party status as Intervenors to the Christenson Appellants. (AR 1193-1194). On August 26, 2019, the Commission issued an order granting party status as Intervenors to the Ehlebracht Appellants. (AR 1478). On that same

[4] CRWII is a wholly-owned, indirect subsidiary of NextEra Energy Resources, LLC.
[5] Besides the turbines, the Project also includes access roads to the turbines and associated facilities, underground 34.5 kV electrical collector lines, underground fiber-optic cable, a 34.5-kV to 230 kV collection substations, two permanent meteorological towers, and an operations and maintenance facility.
[6] Jay Haley, Sarah Sappington, Mark Thompson, Tyler Wilhelm, Daryl Hart, and Richard Lampeter.

day, pursuant to SDCL §§ 49-41B-15 and 49-41B-16, the Commission held the public input meeting in Watertown, South Dakota. (AR 1122-1123, 1274-1477).

On September 20, 2019, CRWII submitted pre-filed Supplemental Testimonies and Exhibits.[7] (AR 2007-3223). On October 21, 2019, CRWII filed Corrected Direct Testimony of Witness Sarah Sappington. (AR 3233-3254). On December 9, 2019, Staff filed Pre-Filed Direct Testimony and Exhibits of five witnesses.[8] (AR 3356-4259). On December 12, 2019, several Ehlebracht Appellants[9] each filed Pre-Filed Direct Testimony in the form of Affidavits. (AR 4251-4264). On January 8, 2020, CRWII submitted Pre-Filed Rebuttal Testimony and Exhibits of seven witnesses[10] (with corrections filed on January 22, 2020, and January 24, 2020). (AR 4267-4338). On January 23, 2020, Staff submitted Pre-Filed Supplemental Testimony of David Lawrence. (AR 7054-7079).

On February 4-6, 2020, the Commission held an evidentiary hearing in Pierre, South Dakota. (AR 8844-13781). CRWII, Staff, and Appellants participated in the evidentiary hearing, presenting testimony, and cross-examining witnesses.[11] (AR 8844-13781). Appellants presented witness testimony,[12] but did not pre-file expert testimony. The Hearing Examiner presided over the hearing and each of the commissioners were present for the entirety of the hearing. On February 27 and March 2, 2020, the Parties filed Post-Hearing Briefs. (AR 13820-13919).

On March 17, 2020, the Commission met to consider whether to issue a facility permit for the Project. (AR 13984-14079). At the meeting, the Commission voted unanimously to issue a permit for the Project, subject to 49 conditions. (AR 13994-14079). On April 6, 2020, the Commission issued the Permit. (AR 14230-14258). The Permit includes conditions establishing maximum permissible sound levels and maximum levels of shadow flicker at residences near the Project.[13] (AR 14246-14258).

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[7] These include Mark Thompson, Jay Haley, Tyler Wilhelm, Dr. Cristopher Ollson, Daryl Hart, Sarah Sappington, Michael MaRous, and Dr. Robert McCunney.
[8] These include David Hessler, Darren Kearney, Hilary Meyer Morey, David Lawrence, and Paige Olson.
[9] Amy Rall, Laretta Kranz, Garry Ehlebracht, and Steven Greber.
[10] These include Mark Thompson, Jay Haley, Tyler Wilhelm, Richard Lampeter, Sarah Sappington, Michael MaRous, and Dr. Christopher Ollson.
[11] Seventeen witnesses testified at this hearing.
[12] On December 12, 2019, Garry Ehlebrecht, Steven Greber, Amy Rall, and Laretta Kranz submitted pre-filed direct testimony.
[13] Specifically, Permit Condition 26 limits sound levels emitted from the Project to 45 dBA for non-participating residences and 50 dBA for participating residences, as measured within 25 feet of a residence, with an allowance for a landowner to waive the condition. (AR 14251). Permit Condition 35 restricts Shadow Flicker at residences to 30 hours per year, with an allowance for an owner to waive the condition. (AR 14255).

On April 29, 2020, the Ehlebracht Appellants filed a Notice of Appeal of the Order in the Third Circuit Court located in Deuel County followed by a Statement of Issues on May 7, 2020. On May 1, 2020, the Christenson Appellants filed a Notice of Appeal followed by a Statement of Issues on May 11, 2020. With the consent of the parties, the appeals were consolidated in the Third Circuit Court in Deuel County.

On July 13, 2020, Ehlebracht Appellants filed their initial brief. On August 10, 2020, Christenson Appellants filed their initial brief. On September 11, 2020, Staff filed its Response Brief to Christenson Appellants. ("Staff's Brief to Christenson"). On September 23, 2020, CRWII submitted its Response Brief to both Christenson and Ehlebracht Appellants ("CRWII's Brief"). On September 24, 2020, Staff filed its Response Brief to Ehlebracht Appellants. ("Staff's Brief to Ehlebracht"). On October 8, 2020, Christenson Appellants submitted their Reply Brief to both Staff and CRWII. On October 13, 2020, Ehlebracht Appellants submitted their Reply Brief. On November 23, 2020, a hearing was held on the matter in Deuel County, South Dakota

STANDARD OF REVIEW

The regulatory agency here, the Public Utilities Commission, is governed by the Administrative Rules of South Dakota ("ARSD"), specifically ARSD Chapter 20:10:22 ("Energy Facility Siting Rules"). Decisions by the Commission may be appealed to the circuit court:

> Any party to a permit issuance proceeding aggrieved by the final decision of the Public Utilities Commission on an application for a permit, may obtain judicial review of that decision by filing a notice of appeal in circuit court. The review procedures shall be the same as that for contested cases under chapter 1-26.[14]

SDCL § 49-41B-30. Subsequently, SD Ch. 1-26 states the following review procedures:

> The court shall give great weight to the findings made and inferences drawn by an agency on questions of fact. The court may affirm the decision of the agency or remand the case for further proceedings. The court may reverse or modify the decision if substantial rights of the appellant have been prejudiced because the administrative findings, inferences, conclusions, or decisions are:
>
> (1) In violation of constitutional or statutory provisions;

[14] "The sections of Title 15 relating to practice and procedure in the circuit courts shall apply to procedure for taking and conducting appeals under this chapter so far as the same may be consistent and applicable, and unless a different provision is specifically made by this chapter or by the statute allowing such appeal." SDCL § 1-26-32.1; *see also* SDCL § 15-6-81(c) ("SDCL Ch. 15-6 does not supersede the provisions of statutes relating to appeal to the circuit courts.").

(2) In excess of the statutory authority of the agency;
(3) Made upon unlawful procedure;
(4) Affected by other error of law;
(5) Clearly erroneous in light of the entire evidence in the record; or
(6) Arbitrary or capricious or characterized by abuse of discretion or clearly unwarranted exercise of discretion. . ..

SDCL § 1-26-36; *see also In re Otter Tail Power Co. ex rel. Big Stone II*, 2008 S.D. 5, ¶ 26, 744 N.W.2d 594, 602.

The agency's factual findings are reviewed under the clearly erroneous standard. *Id.* (citing SDCL § 1-26-36(5)). A decision is clearly erroneous if, after reviewing the entire record, the reviewing court is left with a definite and firm conviction that a mistake has been made. *Steinmetz v. State, DOC Star Academy*, 2008 S.D. 87, ¶ 6, 756 N.W.2d 392, 395 (internal citations omitted). It is well-settled that a court will not weigh the evidence or substitute its judgment for that of the Commission, rather, it is the court's function to determine whether there was any substantial evidence in support of the Commission's conclusion or finding. *See, e.g., Application of Svoboda*, 54 N.W.2d 325, 327 (S.D. 1952) (citing *Application of Dakota Transportation of Sioux Falls*, 291 N.W. 589 (S.D. 1940)).

Regarding questions of fact, the court affords great weight to the findings made and inferences drawn by an agency. *See* SDCL § 1-26-36. The agency's decision may be affirmed or remanded but cannot be reversed or modified absent a showing of prejudice. *Anderson*, 2019 S.D. 11, ¶ 10, 924 N.W.2d at 149 (citing SDCL § 1-26-36) (emphasis added). Even if the court finds the Commission abused its discretion, the Commission's decision may not be overturned unless the court also concludes that the abuse of discretion had prejudicial effect.[15] *Sorensen*, 2015 S.D. 88, ¶ 20, 871 N.W.2d at 856 (emphasis added).

Questions of law are reviewed de novo on appeal from an administrative agency's decision. *Anderson v. South Dakota Retirement System*, 2019 S.D. 11, ¶ 10, 924 N.W.2d 146, 149 (citing *Dakota Trailer Mfg., Inc. v. United Fire & Cas. Co.*, 2015 S.D. 55, ¶ 11, 866 N.W.2d 545, 548) (emphasis added). Matters of reviewable discretion are reviewed for abuse. *Id.* (citing SDCL § 1-

[15] A reviewing court will reverse an administrative agency decision when the substantial rights of the appellant have been prejudiced because the administrative findings, inferences, conclusions or decisions are affected by error of law, are clearly erroneous in light of the entire evidence in the record, or are arbitrary and capricious, or are characterized by abuse of discretion, or are clearly an unwarranted exercise of discretion. SDCL § 1-26-36; *In re One-time Special Underground Assessment by Northern States Power Company in Sioux Falls*, 2001 S.D. 63, ¶ 8, 628 N.W.2d 332, 334. *See also Wise v. Brooks Const. Services*, 2006 S.D. 80, ¶ 16, 721 N.W.2d 461, 466; *Apland v. Butte County*, 2006 S.D. 53, ¶ 14, 716 N.W.2d 787, 791.

26-36(6)) (emphasis added). "An agency's action is arbitrary, capricious or an abuse of discretion only when it is unsupported by substantial evidence and is unreasonable and arbitrary." *In re Midwest Motor Express*, 431 N.W.2d 160, 162 (S.D. 1988) (citing *Application of Dakota Transportation of Sioux Falls*, 291 N.W. 589 (S.D. 1940)) (emphasis added); *see also Sorensen v. Harbor Bar, LLC*, 2015 S.D. 88, ¶ 20, 871 N.W.2d 851, 856 ("An abuse of discretion 'is a fundamental error of judgment, a choice outside the range of permissible choices, a decision, which, on full consideration, is arbitrary or unreasonable.'") (internal quotation omitted)). "Substantial evidence" is defined as "such relevant and competent evidence as a reasonable mind might accept as being sufficiently adequate to support a conclusion." SDCL § 1-26-1(9).

Here, Appellants challenge the agency's conclusion that the CRWII wind facility will not harm the social and economic condition of inhabitants in the wind energy facility siting area and that the facility will not substantially impair the health, safety, or welfare of the inhabitants within the siting area as clearly erroneous based upon the record in its entirety.[16] This presents a mixed question of fact and law, reviewable de novo. *Johnson v. Light*, 2006 S.D. 88, ¶ 10, 723 N.W.2d 125, 127 ("Mixed questions of law and fact that require the reviewing Court to apply a legal standard are reviewable de novo.") (quoting *State ex rel. Bennett v. Peterson*, 2003 S.D. 16, ¶ 13, 657 N.W.2d 698, 701)).

PART I: CHRISTENSON APPELLANTS

Burden of Proof

South Dakota law requires the following:

> The applicant has the burden of proof to establish by a preponderance of the evidence that:
> (1) The proposed facility will comply with all applicable laws and rules; [and]
> . . .
> (3) The facility will not substantially impair the health, safety or welfare of the inhabitants. . ..

SDCL § 49-41B-22. Furthermore, the ARSD also places the burden upon the applicant:

> In any contested case proceeding, the complainant, counterclaimant, applicant, or petitioner has the burden of going forward with presentation of evidence unless otherwise ordered by the commission. The complainant, counterclaimant,

[16] An applicant for a permit is required to establish that the facility "will not substantially impair the health, safety or welfare of the inhabitants" in accordance with SDCL § 49-41B-22(3).

> applicant, or petitioner has the burden of proof as to factual allegations which form the basis of the complaint, counterclaim, application, or petition. In a complaint proceeding, the respondent has the burden of proof with respect to affirmative defenses.

ARSD 20:10:01:15.01 ("Burden in contested case proceeding").

Christenson Appellants assert that the PUC's findings of fact were clearly erroneous, and its corresponding conclusions of law amounted to reversible error under SDCL § 1-26-36, in part, since Applicant failed to meet its burden of proof and/or its burden of going forward as required by SDCL § 49-41B-22 and/or ARSD 20:10:01:15.01. Under this burden of proof issue, the Christenson appellants assert several issues where the burden of proof failed. The court will address them below.

Solid Waste

Christenson Appellants initially raised the issue of "solid or radioactive waste" in their first brief. Christenson Brief, at 9-11. However, as Appellees PUC and CRWII argued in their responsive briefs, Christenson argued the wrong ARSD, as that did not apply to wind energy facilities, such as this Project.[17] The applicable ARSD in this case is the following:

> The applicant shall include an identification and analysis of the effects the construction, operation, and maintenance of the proposed facility will have on the anticipated affected area including the following:
>
> (1) A forecast of the impact on commercial and industrial sectors, . . . solid waste management facilities, . . . and other community and government facilities or services. . ..

ARSD 20:10:22:23 ("Community impact"). Christenson acknowledges the previous error, and then argues this "community impact" regulation in their reply brief. Christenson Reply Brief, at 2-4. Although the incorrect statute was cited, the issue of "solid waste" was argued initially.

[17] Christenson initially argued that CRWII did not comply with ARSD 20:10:22:31, which states "The applicant shall provide information concerning the generation, treatment, storage, transport, and disposal of solid or radioactive waste generated by the proposed facility and evidence that all disposal of the waste will comply with the standards and regulations of any federal or state agency having jurisdiction. . .." However, as PUC argued, ARSD 20:10:22:05 states that ARSD 20:10:22:26 to 20:10:22:33, inclusive, apply for a permit for an *energy conversion* facility. *See* SDCL § 49-41B-2(6) for the definition of an energy conversion facility. Rather, this regulation states that ARSD 20:10:22:33.01 and 20:10:22:33.02 apply for a permit for a *wind energy* facility.

Christenson's argument concentrates upon the issue of identifying, analyzing, and forecasting the end of life disposal of the Project's used blades, concrete, and other refuse. The Staff states that the Commission heard evidence on the future disposal of wind turbine blades and received assurance from CRWII that it would comply with the applicable laws for disposal, which could occur decades into the future. CRWII stated at the November 2020 hearing that the statute is limited to the construction, operation, and maintenance of the facility, and that there is nothing in it regarding the decommissioning or tearing down.

Appellees' arguments are more persuasive here. First, the testimonies provided repeated assurances that the Project would follow the applicable laws. Furthermore, in the Application, this ARSD was specifically addressed, and stated in part, "Construction and operation of the Project . . . is not anticipated to have significant short- or long-term effects on . . . solid waste management facilities." Ex. A1, page 93.

Second, the argument of "disposal" here appears moot. While the incorrect, previously cited ARSD 20:10:22:31 requires proper disposal, the correct, applicable ARSD 20:10:22:23 does not mention the words "disposal" or "decommissioning" at all. It specifically refers to a facility's "construction, operation, and maintenance." Christenson's argument here concerns the *end of life* of the Project, and not the *construction, operation, and maintenance* of the Project. This ARSD does not require specific plans for the *disposal* of blades and refuse; therefore, the Commission did not violate SDCL § 49-41B-22, ARSD 20:10:01:15.01, or ARSD 20:10:22:31.

Thus, regarding the issue of "solid waste," the Commission met its burden of proof and did not err when granting a permit to CRWII. Furthermore, because the Commission did not err in its decision, the question of prejudice need not be discussed for "solid waste."

Compliance with Grant County Ordinance

Christenson Appellants argue the following:

> Appellee PUC wrongly and prejudicially entered Finding of Fact No. 18 (FN. 24) in erroneously finding, in essence, that Appellee CRWII will be in compliance with applicable laws, including the Grant County Ordinance since, directly contrary to testimony by Jay Haley, that Appellee CRWII "complies with both versions of the Grant County Ordinance – the one in effect at the time of the approval of the Project by Grant County, and the one made effective shortly after the December 2018 CUP vote."

Christenson Brief, at 3. In the record, FOF 18 states the following:

> FOF 18. The evidence submitted by [CRWII] demonstrates that the Project will comply with applicable laws and rules.[18] Applicant committed that it will obtain all governmental permits which reasonably may be required by any township, county, state agency, federal agency, or any other governmental unit for the construction and operation activity of the Project prior to engaging in the particular activity covered by that permit.[19]

PUC Staff states that the Commission properly determined that the Project will comply with all applicable laws, specifically as it relates to compliance with the Grant County ordinance. Additionally, CRWII states that the record shows CRWII's commitment and ability to comply with the old and new Grant Country Sound Ordinance.

CRWII applied for its CUP for Grant County on September 17, 2018. On December 17, 2018, Grant County approved this CUP. The original ordinance was as follows:

> 13. Noise. Noise level shall not exceed 50 dBA, average A-weighted Sound pressure including constructive interference effects at the perimeter of the principal and accessory structures of existing off-site residences, businesses, and buildings owned and/or maintained by a governmental entity.

On December 28, 2018, the new ordinance was adopted, and on January 28, 2019, it became effective. The new ordinance was as follows:

> 14. Noise. Noise level shall not exceed 45 dBA, average A-weighted Sound pressure including constructive interference effects measured twenty-five (25) feet from the perimeter of the existing non-participating residences, businesses, and buildings owned and/or maintained by a governmental entity.

In addition to FOF 18, Christenson Appellants argue that FOF 46 is also clearly erroneous:

> 46. The record demonstrates that Applicant has appropriately minimized the sound level produced from the Project to the following: (1) no more than 45 dBA at any

[18] FOF 18 (Footnote 23): Ex. A1 at 72-76, 111-112 (Application) and Ex. A5 at 8-11 (Wilhelm Direct Testimony).
[19] FOF 18 (Footnote 24): At the evidentiary hearing, pro se Intervenor Christenson questioned whether Applicant was in compliance with the Grant County Ordinance in effect at the time Grant County voted to approve the Project or the Ordinance that was made effective after the County's vote to approve the Project. Applicant testified that Grant County has indicated it intends to apply the Ordinance made effective shortly after approval of the CUP for the Project. Evid. Hrg. Tr. at 47-49 (Wilhelm) (February 4, 2020). The record in this proceeding shows that Crowned Ridge Wind II complies with both versions of the Grant County Ordinance - the one in effect at the time of the approval of the Project by Grant County, and the one made effective shortly after the vote. Evid. Hrg. Tr. at 217-218, 233-234, 237-239 (Haley) (February 4, 2020); Exs. A2; A14; A21 (Haley Direct, Supplemental and Rebuttal Testimony); Ex. A14-1 through Ex. A14-4 (Supplemental Testimony Sound and Shadow Flicker Studies); Ex. A21-1 through Ex. A21-3; and Ex. A28 and Ex. 29 (Rebuttal Testimony Sound and Shadow Flicker Results); and Ex. AC-19. Therefore, the record shows that Crowned Ridge Wind II will be in compliance with applicable laws, including the Grant County Ordinance.

> non-participants' residence and (2) no more than 50 dBA at any participants' residence. . ..[20]

Christenson Brief, at 16. Christenson Appellants argue that Conclusion of Law 9, 13, and 15 are in error:

> COL 9. In the event the Project's contracted life is not extended, the record demonstrates that Applicant has appropriate and reasonable plans for decommissioning. The Project will be decommissioned in accordance with applicable state and county regulations. Applicant has agreed to Permit Condition No. 33 for purposes of decommissioning the Project.
>
> COL 13. Applicant must comply with the applicable requirements in the Deuel County, Grant County, and Codington County ordinances.
>
> COL 15. Based on the preponderance of the evidence presented to the Commission, the Commission concludes that all the requirements of SDCL § 49-41B-22 have been satisfied.

This court will not weigh the evidence or substitute its judgment for that of the PUC. Rather, it is this court's function to determine whether there was any substantial evidence in support of the PUC's conclusion or finding. The PUC found that CRWII followed the Grant County ordinance, and the findings, cited above, are supported by substantial evidence of reports, testimonies, and studies. CRWII held a valid CUP from Grant County. (AR 14235-14236). Furthermore, the Commission concluded the following:

> The evidence submitted by [CRWII] demonstrates that the Project will comply with applicable laws and rules. Applicant committed that it will obtain all governmental permits which reasonably may be required by any township, county, state agency, federal agency, or any other governmental unit for the construction and operation activity of the Project prior to engaging in the particular activity covered by that permit. The record demonstrates that construction and operation of the Project, subject to the Permit Conditions, meets all applicable requirements of SDCL Chapter 49-41B and ARSD Chapter 20:10:22.

Id. (AR 14235 footnotes citing record evidence omitted).

Christenson cites *In re Conditional Use Permit Granted to Van Zanten*, 1999 S.D. 79, 598 N.W.2d 861, and PUC counters that that case is inapplicable, as its facts and laws relate to a county

[20] FOF 46 (Footnote 98): Exs. A2; A14; A21 (Haley Direct, Supplemental and Rebuttal Testimony); Ex. A1-1 (Sound Modeling Report); Ex. A14-1 through Ex. A14-3 (Supplemental Testimony Sound Studies); Ex. A21-1; Ex. A21-3; Ex. A28, and Ex. 29 (Updated Rebuttal Sound Results).

zoning ordinance. This is an appeal from an *agency* decision, and not an appeal from a *county* decision. Because this issue is a *county* issue, and currently ongoing in case file 25CIV20-10, the Court will not address the validity of the CUP itself in this case.

Lastly, both Staff and CRWII argue in the alternative that no Appellants are prejudiced by these sound regulations of the Grant County ordinance. The Court refuses to weigh into this argument as it is unnecessary. Because the Commission did not err in its decision, the question of prejudice need not be discussed for this issue.

Aircraft Detection Lighting System (ADLS)

The Aircraft Detection Lighting System (ADLS) statute, effective on July 1, 2019, states the following:

> For any wind energy facility that receives a permit under this chapter after July 1, 2019, the facility shall be equipped with an [ADLS] that meets the requirements set forth by the Federal Aviation Administration [FAA]. . ..

SDCL § 49-41B-25.2 (in pertinent part). On April 6, 2020, the Commission issued its permit to CRWII (AR 14230-14258); therefore, this ADLS requirement applies to this permit.

Christenson Appellants argue the following:

> Appellee Commission committed error in violation of statutory provisions insofar as Applicant [CRWII] failed to meet the statutory requirements of SDCL § 49-41B-25.2 by and through its failure, at the time of the Commission's hearing on the merits of Appellee CRWII's wind energy facility permit, of being equipped with – or even having applied for – the necessary and statutorily required aircraft detection lighting system (ADLS).

Christenson Brief, at 16. Christenson argues that CRWII failed to even apply for ADLS by the time of the administrative hearing seeking approval (February 4-6, 2020), and that the Commission clearly erred in its Findings of Fact 18,[21] 30,[22] and 66.[23]

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[21] *See* Issue 1A: Compliance with Grant County Ordinance, *supra.*

[22] FOF 30. Applicant will install and use lighting required by the [FAA]. Applicant will equip the Project with a FAA-approved [ADLS] to minimize visual impact of the Project starting with the commercial operation date and for the life of the Project, subject to normal maintenance and forced outages.

[23] FOF 66. The Commission finds that the Project, if constructed in accordance with the Permit Conditions of this decision, will comply with all applicable laws and rules, including all requirements of SDCL Chapter 49-41B and ARSD Chapter 20:10:22.

The Court finds Christenson's argument to be misguided. The plain reading of the statute requires that CRWII, the applicant wind energy facility, which receives a permit, shall be equipped with an ADLS in compliance with the FAA. Christenson appears to argue that CRWII was not equipped with ADLS at the time of the permit, which is a clear misunderstanding of the statute.

Or, alternatively, Christenson argues that CRWII had no plan to install ADLS in its Application for its facility permit (submitted July 9, 2019) at the time of the Commission's Hearing (February 4-6, 2020). This would also be a misunderstanding of the statute, which says a facility that "receives a permit . . . shall be equipped" with an ADLS. Nothing in the statute requires the "merits" of the Applicant's permit being equipped or applied for an ADLS.

Furthermore, this point is moot. Findings of Fact 30 and 51, and Permit Condition 34, all state that CRWII will install and use ADLS in compliance with the FAA. CRWII points to Permit Condition 1 (Applicant will obtain all governmental permits which reasonably may be required by any governmental unit for construction and operation activity of the Project prior to operation) and Permit Condition 34 (Applicant shall apply to the FAA for approval to utilize an ADLS and allow enough time for a FAA determination and system construction prior to operation). FOF 51 requires the Applicant to illuminate the wind turbines as required by the FAA.

Therefore, regarding the ADLS, the Commission did not err when granting a permit to CRWII. Furthermore, because the Commission did not err in its decision, the question of prejudice need not be discussed for ADLS.

Sound and Air Quality Studies

A. Sound Study

Christenson Appellants argue the following:

> Appellee Commission failed to receive and consider Appellee [CRWII's] complete application for a wind energy facility permit through the time of the evidentiary hearing herein contrary to the requirements of South Dakota law, pursuant to SDCL § 49-41B-22(3), including the submission for review of a pre-construction sound or health study in each (or any) of the adversely affected counties.

Christenson Brief, at 18. Staff responds that Applicant met is burden of proof with respect to SDCL § 49-41B-22(3). CRWII responds that it carried its burden that the Project will not substantially impair the health or welfare of inhabitants.

South Dakota law states that the "applicant has the burden of proof to establish by a preponderance of the evidence that . . . the facility will not substantially impair the health, safety or welfare of the inhabitants. . .." SDCL § 49-41B-22(3).

Christenson Appellant states that "[a]lthough four (4) proposed experts appeared and gave testimony and evidence at the evidentiary hearing for Appellee CRWII, no infrasound or low frequency sound study was requested to be conducted, nor any study submitted to Appellee PUC for evidentiary analysis and review." Christenson Brief, at 19.

Staff responds that (1) there is no legislative directive as to how an applicant must establish that a project will not substantially impair the health and welfare of the community; and (2) there is no rule that mandates how the applicant must satisfy the burden. Staff's Brief, at 11. Staff then states that the Commission found sufficient evidence in the record to demonstrate that "the sound from the Project would not substantially impair the health and welfare of the community." *Id.*, (Findings of Fact 68, AR 14244). This finding was supported by substantial evidence in the record, including "expert testimony from both health experts and acousticians, with no corresponding intervenor testimony to contradict these experts." *Id.*

Again, the statute, SDCL § 49-41B-22, does not require an act that Appellants claim exists. Rather, it simply states that CRWII must prove its facility will not substantially impair the health, safety or welfare of the inhabitants. As Staff argued, there are no specific mandates on completing this task.

Therefore, regarding the sound study, the Commission did not err when granting a permit to CRWII. Furthermore, because the Commission did not err in its decision, the question of prejudice need not be discussed for the sound study.

B. Air Quality Study

Christenson Appellants argue that "contrary to the regulatory requirements of ARSD 20:10:22:21, no air quality study was requested nor submitted to Appellee PUC for review." Christenson's Brief, at 20. This ARSD states the following:

> The applicant shall provide evidence that the proposed facility will comply with all air quality standards and regulations of any federal or state agency having jurisdiction and any variances permitted.

ARSD 20:10:22:21.

CRWII argues that in its Application, it explained in detail that the Project's operations did not implicate air quality standards. CRWII's Brief, at 30. (AR 99-100). The Commission concluded "The evidence further demonstrates that there are no anticipated material impacts to existing air and water quality, and the Project will comply with applicable air and water quality standards and regulations." *Id.*; (AR 14237).

This ARSD does not require that an air quality study be submitted, only that it would comply with standards and regulations. Therefore, regarding the air quality study, the Commission did not err when granting a permit to CRWII. Furthermore, because the Commission did not err in its decision, the question of prejudice need not be discussed for the air quality study.

As to each of these issues raised the Commissions finding that the applicant has met its burden of proof as to the applicable rules and laws and that the Project will not negatively impact the health and welfare of the inhabitants was not clearly erroneous and is affirmed by this court.

PART II: EHLEBRACHT APPELLANTS

This court's role, in this procedural appeal, is to determine whether the regulatory agency was clearly erroneous or not in its findings. This court will not address the arguments of easements or takings, the histories of regulatory limitations of shadow flicker borrowed from German standards, or whether this is a discharge of light in accordance with SDCL § 43-13-2(8). This is not the proper place nor time for these arguments. This court does not have the jurisdiction to hear these argument, rendering them moot in this appeal. The court does however, address the following issues raised by Ehlebracht Appellants.

Minimal Adverse Effect

Ehlebracht Appellants argue the following issue:

> Whether the Agency, authorized to promulgate rules concerning wind energy conversion facilities (SDCL § 49-41B-35) but adopting no relevant rules as to the meaning of "minimal adverse effect," may proceed on a case-by-case or *ad hoc* basis to permit a burden of "effects" upon both citizens and their properties under

> variable regulatory limits developed by others, including those interested in the promotion of wind development.

Ehlebracht Brief, at 2, 12. This South Dakota statute states the following:

> To implement the provisions of this chapter regarding facilities, the commission shall promulgate rules pursuant to chapter 1-26. Rules may be adopted by the commission:
>
> (1) To establish the information requirements and procedures that every utility must follow when filing plans with the commission regarding its proposed and existing facilities;
> (2) To establish procedures for utilities to follow when filing an application for a permit to construct a facility, and the information required to be included in the application; and
> (3) To require bonds, guarantees, insurance, or other requirements to provide funding for the decommissioning and removal of a solar or wind energy facility.

SDCL § 49-41B-35 ("Promulgation of rules").

Ehlebracht's argument of the *ad hoc* basis is that the Commission has permitted more stringent standards for other wind energy facilities, specifically Prevailing Wind Park,[24] than others, such as the CRWII Project here. These standards include "effects" such as noise and shadow flicker.

Staff argues that the Commission is not required to promulgate rules defining "minimal adverse effects," but rather is permitted this rulemaking authority. Staff's Brief to Ehlebracht, at 7. Furthermore, Staff argues that the state statute instructs the Commission to review permit applications on case-by-case or ad hoc bases.[25] CRWII likewise makes the same argument, the Commission has discretion, not the legal obligation to adopt rules. CRWII's Brief, at 8-9.

The state statutes and ARSD clearly permit the Commission to adopt rules and procedures. Ehlebracht's argument here focuses on requiring the Commission to adopt a standard that applies to all windfarms. Currently, the laws require that the Commission defers to local county ordinances. As evidenced within this case itself, there are three counties (Codington, Deuel, and Gran), each with their own separate standards.

[24] This wind energy facility is in Bon Homme, Yankton, and Charles Mix counties.
[25] *See* SDCL §§ 49-41B-11 through 49-41B-25, inclusive.

Therefore, regarding this issue, the Commission did not err when granting a permit to CRWII. Furthermore, because the Commission did not err in its decision, the question of prejudice need not be discussed for this issue.[26]

Issue 2: Easements and Servitudes

Ehlebracht Appellants argue the following issue:

> Whether SDCL § 43-13-2, "Easements and Servitudes," applies to the land and property interests of Appellants, bearing on the Applicant's claimed right to hereafter discharge adulterated light (in the form of Shadow Flicker, along with other Effects) onto and into the dwellings and lands of appellants, given that the Agency's Decision offers or affords approval of such discharge but without the required consent of the fee owner.

Ehlebracht Brief, at 18. This South Dakota statute states the following:

> The following land burdens or servitudes upon land may be attached to other land as incidents or appurtenances, and are called easements:
> . . .
> (8) The right of receiving air, light, or heat from or over, or discharging the same upon or over land . . .

SDCL § 43-13-2(8).

Ehlebracht Appellants argue that the right to discharge light upon or over land is an affirmative easement. Ehlebracht Brief, at 21. Staff argues that the "Commission is not a court of general jurisdiction and has no authority to assess property rights, nor waive any underlying law, ordinance or regulation that otherwise applies to the construction of wind turbines." Staff's Ehlebracht Brief, at 12. CRWII argues that this statute "is wholly outside the statute the Legislature enacted for the Commission to administer." CRWII's Brief, at 20; *Northwestern Bell Tel. Co. v. Chicago & N.W. Transp.*, 245 N.W.2d 639, 641 (S.D. 1976) ("The Public Utilities Commission is an administrative body authorized to find and determine facts, upon which the statutes then operate. It is not a court and exercises no judicial functions").

[26] Ehlebracht Appellants also casually state that the equal protection laws are violated (Art. 6, 18, S.D. Const.; 14th Amendment, U.S. Const.). The Court finds this argument without merit, as it does not provide evidence aside for claims that one county ordinance has a more stringent ordinance than that of another county on the other side of the state.

Here, the Court agrees with the appellees that this issue is outside its jurisdiction. This court's role, in this procedural appeal, is to determine whether the regulatory agency was clearly erroneous or not in its findings. Therefore, regarding this issue, the Court will not weigh into the question of easements.

Taking and *Per Se* Nuisance

Ehlebracht Appellants argue the following issue:

> Whether the exercise of the Agency's permitting authority under Chapter 49-41B, SDCL, giving approval for the casting of Effects over the homes and lands of Non-Participants, but without an easement being conferred in favor of Applicant and without the provisions of SDCL § 21-35-31 having been invoked, is a taking of Appellants' private property interests?

Ehlebracht Brief, at 27. Ehlebracht Appellants state that they will be subject to the Effects given off by the Project (such as noise and shadow flicker). Without the appellants granting permission, this would in effect "accomplish[] a *taking* of the property interests of these Appellants." *Id.*, at 29.

Staff argues that the Commission's order granting CRWII a permit to construct a wind energy facility is not a taking or a *per se* nuisance. Regarding a "taking," Ehlebracht fails each of the four theories under South Dakota case law. *Benson v. State*, 710 N.W.2d 131, 149 (S.D. 2006) (a regulatory physical taking; a permanent physical invasion of property; depriving owner of all economically beneficial uses of property; and a land-use exaction violating standards). Regarding *per se* nuisance, Staff argues that Ehlebracht's claim is not ripe, nor do the appellants submit sufficient evidence for the court to determine a taking has occurred. *See Boever, v. South Dakota Bd. of Accountancy*, 526 N.W.2d 747 (S.D. 1995). CRWII argues that the per se nuisance is insufficient to create a ripe controversy. *See Boever*, 526 N.W.2d at 750.

The Court here agrees with Appellees' arguments. Ehlebracht has not established that noise and shadow flicker is a taking under South Dakota law, and the per se nuisance is not ripe for controversy. Therefore, the court will not address either of these issues.

CONCLUSION

Considering the Commission's findings, inferences, and conclusions, the Commission was not clearly erroneous and did not abuse its discretion in granting the permit to Crowned Ridge II. The Commission's decision was supported by extensive findings and conclusions that were supported by an exhaustive and complete administrative record. Therefore, the court affirms the Commission's decision and denies all of issues raised by each group of Appellants (Christensen and Ehlebracht). Counsel for the Appellee is directed to prepare an Order affirming the Decision of the Public Utilities Commission.

BY THE COURT:

Dawn Elshere
Circuit Court Judge
Third Judicial Circuit

Filed: 4/12/2021 8:02 PM CST Deuel County, South Dakota 19CIV20-000027

STATE OF SOUTH DAKOTA) :SS		IN CIRCUIT COURT
COUNTY OF DEUEL)		THIRD JUDICIAL CIRCUIT
In the Matter of Administrative Appeal of AMBER K. CHRISTENSON, and ALLEN ROBISH,	*	19CIV20-000027
Appellants,	*	
vs.	*	*ORDER FOR ANY REMAINING TRANSCRIPT(S) OF PROCEEDINGS*
SOUTH DAKOTA PUBLIC UTILITIES COMMISSION, and CROWNED RIDGE WIND II, LLC, Appellees.	*	

Appellants, Christenson and Robish, by and through their attorney of record herein, Mr. R. Shawn Tornow of Tornow Law Office, P.C., hereby order from Kristin Woodall, Official Circuit Court Reporter for the Third Judicial Circuit Court, or any other court reporter who may have transcribed any related matter(s) herein, a complete certified transcript and any necessary copies of all proceedings related to the circuit court proceedings (including, oral argument proceedings) on or about November 23, 2020, and/or any other related proceedings below as presided over by Judge Dawn Elshere, including any other remaining untranscribed proceedings below, if any may remain not-yet-transcribed, in/for the above-entitled matter.

Dated this 12th day of April, 2021.

/s/ R. Shawn Tornow
R. Shawn Tornow, for
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Attorney for Appellants

ENDORSEMENT OF REPORTER

I, Kristin Woodall, Court Reporter, hereby acknowledge receipt of a true and correct copy of an Order for Transcript of any remaining (untranscribed) proceedings in the above-entitled action on this _____ day of April, 2021. I estimate that the transcript will be completed within the 45-day period under South Dakota's rules of civil appellate procedure on, _____.

_____
_____, Court Reporter

DEUEL COUNTY CLERK OF COURTS
THIRD JUDICIAL CIRCUIT

PO Box 308
Clear Lake, SD 57226-0308
(605) 874-2120
(605) 874-3305-FAX

April 12, 2021

SUPREME COURT OF SOUTH DAKOTA
OFFICE OF THE CLERK
500 EAST CAPITOL AVENUE
PIERRE, SOUTH DAKOTA 57501-5070

Re: CASE 19CIV20000027
IN THE MATTER OF ADMINISTRATIVE APPEAL GARRY EHLEBRACHT ET AL VS. SOUTH DAKOTA PUBLIC UTILITIES COMMISON AND CROWNED RIDGE WIND LLC

PLEASE FIND ENCLOSED CERTIFIED COPIES OF:

1. Notice of Appeal and Certificate of Service;
2. Appellant's Docketing Statement;
3. Order with Memorandum Decision attached;
4. Notice of Entry of Order; and
5. Check for $100.

IF YOU HAVE ANY QUESTIONS, PLEASE CONTACT OUR OFFICE.
THANK YOU!

Sandy Reichling

SANDY REICHLING
DEUEL COUNTY CLERK OF COURTS

ENC.

Filed on: 04/13/2027 DEUEL County, South Dakota 19CIV20-000027

STATE OF SOUTH DAKOTA) :SS		IN CIRCUIT COURT
COUNTY OF DEUEL)		THIRD JUDICIAL CIRCUIT
In the Matter of Administrative Appeal of AMBER K. CHRISTENSON, and ALLEN ROBISH,	*	19CIV20-000027
Appellants,	*	
vs.	*	*ORDER FOR ANY REMAINING TRANSCRIPT(S) OF PROCEEDINGS*
SOUTH DAKOTA PUBLIC UTILITIES COMMISSION, and CROWNED RIDGE WIND II, LLC, Appellees.	*	

Appellants, Christenson and Robish, by and through their attorney of record herein, Mr. R. Shawn Tornow of Tornow Law Office, P.C., hereby order from Kristin Woodall, Official Circuit Court Reporter for the Third Judicial Circuit Court, or any other court reporter who may have transcribed any related matter(s) herein, a complete certified transcript and any necessary copies of all proceedings related to the circuit court proceedings (including, oral argument proceedings) on or about November 23, 2020, and/or any other related proceedings below as presided over by Judge Dawn Elshere, including any other remaining untranscribed proceedings below, if any may remain not-yet-transcribed, in/for the above-entitled matter.

Dated this 12th day of April, 2021.

/s/ R. Shawn Tornow
R. Shawn Tornow, for
Tornow Law Office, P.C.
PO Box 90748
Sioux Falls, SD 57109-0748
Telephone: (605) 271-9006
E-mail: rst.tlo@midconetwork.com
Attorney for Appellants

ENDORSEMENT OF REPORTER

I, Kristin Woodall, Court Reporter, hereby acknowledge receipt of a true and correct copy of an Order for Transcript of any remaining (untranscribed) proceedings in the above-entitled action on this 13th day of April, 2021. I estimate that the transcript will be completed within the 45-day period under South Dakota's rules of civil appellate procedure on, 5/8/21.

Kristin M Woodall
_____, Court Reporter
KRISTIN WOODALL