

BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF SOUTH DAKOTA

IN THE MATTER OF THE APPLICATION OF	)	FINAL DECISION AND ORDER
DAKOTA RANGE I, LLC AND DAKOTA	)	GRANTING PERMIT TO
RANGE II, LLC FOR A PERMIT OF A WIND	)	CONSTRUCT WIND ENERGY
ENERGY FACILITY IN GRANT COUNTY AND	)	FACILITY; NOTICE OF ENTRY
CODINGTON COUNTY, SOUTH DAKOTA,	)	
FOR THE DAKOTA RANGE WIND PROJECT	)	EL18-003

APPEARANCES

Commissioners Kristie Fiegen, Gary Hanson, and Chris Nelson.

Mollie Smith and Lisa Agrimonti, Fredrikson & Byron, P.A., 200 South Sixth Street, Minneapolis, Minnesota 55402, appeared on behalf of the Applicant, Dakota Range I, LLC and Dakota Range 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.

Teresa D. Kaaz, South Shore, South Dakota 57263, appeared pro se.

Kristi Mogen, Twin Brooks, South Dakota 57269, appeared pro se.

PROCEDURAL HISTORY

On January 24, 2018, the South Dakota Public Utilities Commission (Commission) received an Application for a Facility Permit for a wind energy facility (Application) from Dakota Range I, LLC, and Dakota Range II, LLC (together Dakota Range or Applicant).¹ Applicant proposes to construct a wind energy facility to be located in Grant County and Codington County, South Dakota, known as the Dakota Range Wind Project (Project). According to the Application, the Project would be situated within an approximately 44,500-acre project area, ten miles northeast of Watertown, South Dakota (Project Area). The total installed capacity of the Project would not exceed 302.4-mega-watt (MW) nameplate capacity. The proposed Project includes up to 72 wind turbine generators, access roads to turbines and associated facilities, underground 34.5-kilovolt (kV) electrical collector lines connecting the turbines to the collection substation, underground fiber-optic cable for turbine communications co-located with the collector lines, a 34.5 to 345-kV collection substation, up to five permanent meteorological towers, and an operations and maintenance facility. The Project would interconnect to the high-voltage transmission grid via the Big Stone South to Ellendale 345-kV transmission line which crosses the Project Area. The Project is expected to be completed in 2021. Applicant estimates the total construction cost to be \$380 million.

The Application included the prefiled direct testimony and exhibits of Mark Mauersberger/Brenna Gunderson, Robert O'Neal, and David Phillips/Ryan Henning.

¹ See Ex. A1 (Application).

EXHIBIT

A

On January 25, 2018, the Commission electronically transmitted notice of the filing and the intervention deadline of March 26, 2018, to interested persons and entities on the Commission's PUC Weekly Filings electronic listserv. On January 30, 2018, Applicant sent a copy of the Application and the prefiled testimony to the auditor of Codington County and Grant County. On January 31, 2018, the Commission issued a Notice of Application; Order for and Notice of Public Input Hearing; Notice of Opportunity to Apply for Party Status (Order). The Order scheduled a public input hearing for March 21, 2018, at 5:30 p.m., at the Waverly-South Shore School Gymnasium, 319 Mary Place, Waverly, South Dakota. The Order also set an intervention deadline of March 26, 2018.

On February 9, 2018, Applicant mailed a copy of the public hearing notice via certified mail to all landowners within a half mile of the Project in accordance with SDCL 49-41B-5.2. On February 15, 2018, the Commission issued an Order Assessing Filing Fee assessing a filing fee not to exceed \$390,000 with a minimum filing fee of \$8,000.

The Commission published Notice of Public Hearing in the *Watertown Public Opinion* and the *Grant County Review* on February 21, 2018, and March 14, 2018, and in the *South Shore Gazette* on March 1 and March 15, 2018, as provided in SDCL 49-41B-15. Applicant published Notice of Public Hearing in the *Watertown Public Opinion* on February 13 and February 20, 2018, and in the *Grant County Review* on February 14 and February 21, 2018, and in the *South Shore Gazette* on February 15 and February 22, 2018, as provided in SDCL 49-41B-15.

On March 21, 2018, pursuant to SDCL 49-41B-15, 49-41B-16, and its Order, the Commission held a public input hearing as scheduled. The purpose of the public input hearing was to hear public comment regarding the Application and Project. At the public input hearing, Dakota Range presented a brief description of the project, following which interested persons appeared and presented their views, comments, and questions regarding the Application and Project. See Public Hearing Transcript.

On March 21, 2018, the Commission received Applications for Party Status from Teresa Kaaz, Daniel D. Seurer, Vincent Meyer, Diane Redlin, Jared Krakow, Kevin Krakow, Matt Whitney, Timothy J. Lindgren, Linda M. Lindgren, Christian Reimche, Derek Nelson, Paul Nelson, Kelly Owen, Kristi Mogen, Wade Bauer, Patricia Meyer, and Mark Kriesel. On March 26, 2018, the Commission received an email withdrawing the application for party status for Mark Kriesel. On March 28, 2018, Commission staff submitted a Motion for Adoption of Procedural Schedule. On March 30, 2018, Dakota Range filed a Response to Applications for Party Status and Staff's Motion for Adoption of Procedural Schedule.

On April 3, 2018, Teresa Kaaz filed a response to her Party Status Application. On April 6, 2018, the Commission issued an Order Granting Party Status and Establishing Procedural Schedule. On April 6, 2018, Dakota Range filed the prefiled direct testimony and exhibits of Mark Roberts and Michael MaRous.

On May 2, May 4, May 7, and May 10, 2018, respectively, Dan Seurer, Christian Reimche, Paul Nelson, and Derek Nelson requested withdrawal of party status. On May 4, 2018, Commission staff filed the prefiled direct testimony and exhibits of Paige Olson, Tom Kirschenmann, David Hessler, David Lawrence, and Jon Thurber. On May 4, 2018, Teresa Kaaz filed prefiled direct testimony and exhibits; and, Kristi Mogen filed prefiled direct testimony and exhibits.

On May 15, 2018, Dakota Range filed a Motion to Exclude Portions of Testimony and/or Exhibits of Intervenor Teresa Kaaz and Kristi Mogen and Request Regarding Hearing Participation. On May 15, 2018, the Commission issued an Order for and Notice of Evidentiary Hearing. On May 16, 2018, the Commission issued an Order Granting Withdrawal of Party Status. On May 16, 2018, Commission staff filed its Response to Dakota Range's Motion and Motion for Judicial Notice. On May 16, 2018, the Commission issued an Order for and Notice of Motion Hearing on Less Than 10 Days' Notice. On May 21 and May 22, 2018, Dakota Range filed the prefiled rebuttal testimony and exhibits of Mark Mauersberger, Robert O'Neal, David Phillips, Brenna Gunderson, Daniel Pardo, Dr. Mark Roberts, Michael MaRous, Alice Moyer, and Wade Falk. On May 24, 2018, the Commission issued an Order Granting Motion to Exclude Portions of Exhibits.

On June 7, 2018, Dakota Range filed its exhibits for hearing. On June 8, 2018, Kristi Mogen, Teresa Kaaz, and Commission staff each filed their Witness and Exhibit List. On June 8, 2018, Commission staff filed the prefiled surrebuttal testimony and exhibits of David Lawrence. On June 11, 2018, Commission staff filed a Motion to Compel Discovery, which was granted on June 12, 2018, and Dakota Range filed a confidential copy of the Wind Energy Lease and Wind Easement Agreement on the same date (Exhibit A19). On June 12, 13, and 14, 2018, Dakota Range filed exhibits A18 – A27. On June 14, 2018, Commission staff filed Exhibit S7.

The evidentiary hearing was held as scheduled, beginning on June 12, 2018, and ending on June 14, 2018. At the conclusion of the evidentiary hearing, in consultation with the parties, a briefing schedule and decision date was set by the Commission and on June 18, 2018, an Order Setting Post-Hearing Briefing Schedule and Decision Date was issued.

On July 10, 2018, at its ad hoc meeting, the parties made oral arguments. After questions of the parties by the Commissioners and discussion among the Commissioners, the Commission voted unanimously to grant a permit to Dakota Range to construct the Project, 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 Wind Energy 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. Dakota Range I, LLC and Dakota Range II, LLC are wholly owned indirect subsidiaries of Apex Clean Energy Holdings, LLC (Apex).² Dakota Range I, LLC and Dakota Range II, LLC will jointly own, manage, and operate the Project.³

² Ex. A1 at 6-1 (Application).

³ Ex. A1 at 6-1 (Application).

3. Apex is an independent renewable energy company based in Charlottesville, Virginia. Apex has a large and diversified portfolio of renewable energy resources, capable of producing more than 14,000 MW of clean electricity. Apex has brought 2,200 MW online since 2012, and operating assets under management are nearly 1 gigawatts (GW) as of the first quarter of 2018.⁴

4. Kristi Mogen owns property approximately 9 miles from the Project area.⁵

5. Teresa Kaaz is a landowner within the Project area.⁶

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

III. APPLICABLE STATUTES AND REGULATIONS FOR AN ENERGY FACILITY PERMIT.

7. 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.

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

9. Pursuant to SDCL 49-41B-22, Applicant for a facility construction permit 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;
- (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.

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

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

⁴ Ex. A1 at 1-1 – 1-2 (Application).

⁵ Ex. A10 at 7 (Mauersberger).

⁶ Ex. TK-1a (Kaaz).

IV. PROJECT DESCRIPTION.

12. The proposed Project is an up to 302.4 MW wind energy conversion facility located in Grant and Codington counties, South Dakota. The proposed Project includes up to 72 wind turbine generators, access roads to turbines and associated facilities, underground 34.5-kilovolt (kV) electrical collector lines connecting the turbines to the collection substation, underground fiber-optic cable for turbine communications co-located with the collector lines, a 34.5-kV to 345-kV collection substation, up to five permanent meteorological (MET) towers, and an operations and maintenance (O&M) facility. The Project would interconnect to the high-voltage transmission grid via the Big Stone South to Ellendale 345-kV transmission line, which crosses the Project site.⁷

13. A new 345-kV interconnection switching station connecting to the Big Stone South to Ellendale line will be constructed, owned, and operated by Otter Tail Power Company and Montana Dakota Utilities. Applicant would construct and own a 345-kV interconnection facility connecting the Project collection substation to the interconnection switching station. Because the interconnection facility is less than 2,640-feet long, does not cross any public highways, and does not require the use of eminent domain, it falls outside the Commission's jurisdiction and has been permitted locally.⁸

14. The Project is located on approximately 44,500 acres of privately owned land in Grant County and Codington County, South Dakota (Project Area). Applicant expects construction to be completed in 2021.⁹

15. The current estimated capital cost of the Project is approximately \$380 million based on indicative construction and wind turbine pricing cost estimates for the proposed Vestas V136-4.2 MW turbine layout. This estimate includes lease acquisition, permitting, engineering, procurement, and construction of turbines, access roads, underground electrical collector system, Project collection substation, interconnection facilities, O&M facility, supervisory control and data acquisition (SCADA) system, and MET towers; and project financing.¹⁰

16. The proposed turbine that would be utilized for the Project is the Vestas V136-4.2 MW turbine at an 82-meter hub height and 136-meter rotor diameter (RD).¹¹

17. All turbines will be constructed within the Project Area consistent with the configuration presented in the Updated Layout Map (Exhibit A25), and subject to all commitments, conditions, and requirements of this Order.¹²

18. Apex currently owns Dakota Range and is overseeing the development of the Project. Northern States Power Company, d/b/a/ Xcel Energy (Xcel Energy) has entered into a Purchase and Sale Agreement (PSA) with Apex to acquire Dakota Range, which owns the Project. The PSA will be finalized after the completion of certain development milestones, including acquisition of an Energy Facility Permit from the Commission for the Project. Xcel

⁷ Ex. A1 at 1-1, 9-1 – 9-2 (Application).

⁸ Ex. A1 at 1-1 (Application); SDCL 49-41B-2.1(1).

⁹ Ex. A1 at 1-1 (Application); Ex. A1 at 20-1 (Application).

¹⁰ Ex. A1 at 8-1 (Application).

¹¹ Ex. A1 at 9-3 (Application).

¹² See Ex. A25 (Updated Wind Turbine Map).

Energy is a utility company operating in South Dakota, Minnesota, North Dakota, Colorado, Michigan, New Mexico, Texas, and Wisconsin.¹³

19. Applicant presented evidence of consumer demand and need for the Project.¹⁴ The Project would install up to 302.4 MW of wind generating capacity in South Dakota that would contribute to satisfying utilities', commercial and industrial customers', and consumers' demands for renewable energy, and meet utility renewable requirements or individual sustainability goals.¹⁵ Though Xcel Energy will own Dakota Range (the Project entities), and therefore the electricity produced, the specific electrons generated by the Project would be utilized as needed on the Midcontinent Independent System Operator, Inc. (MISO) regional grid and cannot be tracked to their exact delivery location or final use. The electricity generated by the Project would help MISO operators meet electricity demand in both the immediate and surrounding MISO control area. This Project would also provide zero-emission cost electricity to the grid, as well as firm price stability due to the availability of a renewable resource that would replace the need for ongoing fuel costs.¹⁶

20. Applicant provided evidence to support the need for turbine and associated facility flexibility.¹⁷ With respect to turbine flexibility, Applicant and Commission staff testified to the need for turbine flexibility and material change provisions.¹⁸ With respect to the access roads, the collector system, the O&M facility, the Project substation, and temporary facilities, Applicant and Commission staff agreed to Permit Condition 23, attached hereto.¹⁹

21. At the evidentiary hearing, Applicant requested that three proposed turbine shifts be approved as part of the Project configuration, with the proposed new locations identified as Turbines 34a, 60a, and A12a in Exhibit A15-3.²⁰ Applicant provided evidence to demonstrate that the proposed turbine shifts comply with all applicable siting requirements.²¹ With respect to the three proposed turbine shifts, Applicant and Commission staff agreed to Permit Condition 39, attached hereto.

22. The record demonstrates that Applicant has made appropriate and reasonable plans for decommissioning.²²

23. With respect to financial security for decommissioning, if a sale to Xcel Energy does occur, Xcel Energy is a regulated public utility that recovers decommissioning costs from its customers through retail rates. The Commission has the authority to review the decommissioning costs recovered through rates to ensure funds are available for decommissioning.²³

¹³ Ex. A1 at 7-1 (Application).

¹⁴ See Ex. A1 at § 7.2 (Application).

¹⁵ Ex. A1 at 7-3 (Application).

¹⁶ Ex. A1 at 7-1 (Application).

¹⁷ See Ex. A1 at 9-2 (Application); Ex. A15 at 3-4 (Gunderson).

¹⁸ Ex. A18; Evid. Hrg. Tr. at 299-300 (Thurber).

¹⁹ Ex. A18; Recommended Permit Condition 23; Evid. Hrg. Tr. at 299 (Thurber).

²⁰ Evid. Hrg. Tr. at 214, 216-218 (Gunderson).

²¹ See Evid. Hrg. Tr. at 399-402 (O'Neal); Ex. A15-3 (Constraints Map); Ex. A24; Ex. A25 (Updated Wind Turbine Map - Public) and Ex. A25-C (Updated Wind Turbine Map (CONFIDENTIAL)).

²² See Ex. A1 at Ch. 24.0 (Application); Ex. A4-2 (Decommissioning Cost Estimate Technical Memorandum).

²³ Evid. Hrg. Tr. at 301-302 (Thurber); SDCL 49-34A-6.

24. If a sale to Xcel Energy does not occur, an escrow account is an appropriate financial assurance to cover decommissioning costs.²⁴

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

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

25. The evidence submitted by Applicant demonstrates that the Project will comply with applicable laws and rules.²⁵ Neither Commission staff nor Intervenors have asserted otherwise or submitted evidence to the contrary.

26. Construction of the Project meets all the requirements of Chapter 49-41B.

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.

1. Environment.

27. The evidence demonstrates that the Project does not pose a threat of serious injury to the environment in the Project Area and that Applicant has adopted reasonable avoidance and minimization measures, as well as commitments, to further limit potential environmental impacts.²⁶

28. Construction of the Project will not result in significant impacts on geological resources.²⁷ The risk of seismic activity in the vicinity of the Project Area is low according to data from the U.S. Geological Survey.²⁸

29. Applicant has demonstrated that it will minimize and/or avoid impacts to soil resources.²⁹ The majority of impacts will be temporary and related to construction activities.³⁰ Permanent impacts associated with operation of the Project will be up to 65 acres, which is less than 0.2 percent of the Project Area.³¹ Applicant will implement various measures during construction and restoration to minimize impacts to the physical environment, including separating topsoil and subsoil, installing temporary erosion control devices, and decompacting soil after construction is complete.³²

30. The Project is not anticipated to have material impacts on existing water and air quality.³³

31. Applicant has demonstrated that it will minimize and/or avoid impacts to hydrology.³⁴ The record demonstrates that Applicant has minimized impacts to wetlands and

²⁴ Permit Conditions 37 and 38; Evid. Hrg. Tr. at 318-319 (Thurber).

²⁵ See, e.g., Ex. A1 at 9-2, 10-2, 13-6, Ch. 17.0 (Application).

²⁶ See, e.g., Ex. A1 at Ch. 11.0, 12.0, 13.0, 14.0, 15.0, 16.0, 17.0, 18.0, 19.0 (Application).

²⁷ See Ex. A1 at § 12.1.2 (Application).

²⁸ Ex. A1 at 12-3 (Application).

²⁹ See Ex. A1 at § 12.2.2 (Application).

³⁰ See Ex. A1 at 12-10 (Application).

³¹ Ex. A1 at 3-1, 12-10; Table 11 -1 (Application).

³² Ex. A1 at 9-7 – 9-8, 12-10 – 12-11, 14-3 (Application).

³³ Ex. A1 at 18-1, 19-1 (Application).

³⁴ See Ex. A1 at Ch. 13.0 (Application).

water bodies.³⁵ The Project is not anticipated to have long-term impacts on groundwater resources.³⁶ Any potential impacts to floodplains would be temporary in nature, and existing contours and elevations would be restored upon completion of construction.³⁷ Project impacts on hydrologic resources are anticipated to be temporary and/or minor.³⁸ No turbines are located within wetlands, and the Project is anticipated to permanently impact only approximately 0.08 acres of wetlands.³⁹

32. Applicant has demonstrated that it will minimize and/or avoid impacts to vegetation.⁴⁰ Permanent direct impacts associated with operation of the Project would be up to 65 acres, which is less than 0.2 percent of the Project Area.⁴¹

33. The Project facilities have been sited to avoid native grasslands, to the extent practicable.⁴² In areas where impacts cannot be avoided, temporary impacts would be minimized through construction Best Management Practices (BMPs), such as re-vegetation and erosion control devices.⁴³

34. Applicant coordinated with the South Dakota Game, Fish and Parks Department (GFP) to avoid and minimize impacts to grasslands. The Project will directly impact approximately 9.8 acres of potentially untilled grasslands, which is less than 0.13 percent of the total grasslands in the Project Area.⁴⁴ Applicant will reseed potentially untilled grasslands temporarily impacted by the Project with native seed mixes following construction.⁴⁵ The Project is not likely to result in significant adverse effects to the species that rely on these grasslands or to the functionality of the grassland ecosystem in and near the Project.⁴⁶ The record also demonstrates that the Project will not have a significant adverse impact on habitat, and will not substantially increase habitat fragmentation in the area.⁴⁷

35. Applicant will reseed temporarily disturbed uncultivated areas with certified weed-free seed mixes to blend in with existing vegetation.⁴⁸

36. Applicant has conducted numerous wildlife studies and surveys for the Project to assess existing use, identify potential impacts, and incorporate appropriate avoidance and minimization measures.⁴⁹ Applicant consulted with the U.S. Fish and Wildlife Service (USFWS) and GFP to seek input on wildlife resources potentially occurring within the Project Area and to seek guidance on the appropriate studies to evaluate risk and inform development of impact avoidance and minimization measures for the Project.⁵⁰ Applicant followed the processes outlined in the USFWS Land-Based Wind Energy Guidelines (WEG), Eagle Conservation Plan Guidance (ECPG), and the SD Siting Guidelines for developing, construction, and operation

³⁵ Ex. A1 at §14.2.2 (Application).

³⁶ Ex. A1 at §13 (Application).

³⁷ Ex. A1 at 13-5 (Application).

³⁸ See, e.g., Ex. A1 at 13-4, 14-5, 14-6 (Application).

³⁹ Ex. A8 at 5 (Phillips).

⁴⁰ See Ex. A1 at § 14.1.2 (Application).

⁴¹ Ex. A1 at 3-1, § 14.1.2 (Application).

⁴² Ex. A1 at 14-3 (Application).

⁴³ Ex. A1 at 14-3 (Application).

⁴⁴ Ex. A8 at 7 (Phillips).

⁴⁵ Ex. A8 at 8 (Phillips).

⁴⁶ Ex. A8 at 7 (Phillips).

⁴⁷ Ex. A8 at 9 (Phillips).

⁴⁸ Ex. A8 at 8 (Phillips); Ex. A1 at 3-3 (Application).

⁴⁹ See, e.g., Ex. A1 at § 14.3.1.4 (Application).

⁵⁰ Ex. A1 at 14-6 (Application).

wind energy projects.⁵¹ In addition, Applicant is preparing a Bird and Bat Conservation Strategy (BBCS) in accordance with the WEG, which includes strategies for mitigating risks to avian and bat species during construction and operation of the Project.⁵²

37. Construction of the Project may have impacts on wildlife species primarily as a result of habitat disturbance.⁵³ However, following construction, all areas of temporary disturbance will be reclaimed with vegetation consistent with the surrounding vegetation types.⁵⁴ The Project was designed to avoid and minimize displacement of wildlife by minimizing the Project's footprint in undisturbed areas.⁵⁵ Permanent wildlife habitat loss and functionality due to construction and operation of the Project would be minimal across the Project Area.⁵⁶

38. The record demonstrates that, while the Project may directly impact birds and bats, avian fatalities due to the Project are anticipated to be low and to not have significant population-level impacts.⁵⁷ The Project has been sited in an area and designed in a manner to avoid and minimize impacts to birds and bats.⁵⁸

39. Applicant conducted two years of pre-construction avian surveys.⁵⁹ Those surveys indicate that avian impacts from the Project are anticipated to be low.⁶⁰

40. Applicant has demonstrated that it will minimize and/or avoid impacts to federally- and state-listed species.⁶¹ Based on coordination with the USFWS and GFP, the only federally-listed species with the potential to occur in the Project Area are the northern long-eared bat, Dakota skipper, and Poweshiek skipperling.⁶² Impacts on federally-listed species due to Project construction and operations are anticipated to be minimal due to the low likelihood or frequency of species' presence in the Project Area and implementation of appropriate species-specific conservation measures.⁶³ The only state-listed species documented to occur during site-specific studies completed for the Project was the peregrine falcon (state-endangered), and only one individual was observed, suggesting that use of the Project site by this species and associated risk of impact is very low.⁶⁴

41. Overall, there is a low level of risk for potential bald eagle impacts at the site.⁶⁵ Applicant conducted eagle nest surveys in April 2016 and April 2017. No eagle nests were identified within the Project Area, and the closest eagle nest is approximately 1.8 miles from the Project Area.⁶⁶ In addition, Applicant has agreed to a number of avian-related impact minimization and avoidance measures, including: conducting post-construction avian mortality monitoring and preparing a BBCS in accordance with the USFWS WEG that will be

⁵¹ Ex. A1 at 14-6 (Application).

⁵² Ex. A8 at 11 (Phillips); Ex. A1 at § 14.3.2.5 (Application).

⁵³ Ex. A1 at 14-12 – 14-13 (Application).

⁵⁴ Ex. A1 at 14-13 (Application).

⁵⁵ See Evid. Hrg. Tr. at 194 (Phillips).

⁵⁶ Ex. A1 at 14-13 (Application).

⁵⁷ See Ex. A1 at 14-13 – 14-14 (Application).

⁵⁸ Ex. A8 at 10 (Phillips).

⁵⁹ See Ex. A1 at 2-1 – 2-2 (Application).

⁶⁰ Ex. A1 at 14-14 (Application); Ex. A8 at 10 (Phillips).

⁶¹ See Ex. A1 at § 14.3.2 (Application).

⁶² Ex. A1 at 14-7, 14-13 (Application).

⁶³ See Ex. A1 at 14-7, 14-13 (Application); Ex. A8 at 10-11 (Phillips).

⁶⁴ Ex. A1 at 14-13 (Application).

⁶⁵ Ex. A7 at 15 (Phillips).

⁶⁶ Ex. A1 at 14-10 (Application); Ex. A7 at 15 (Phillips).

implemented to minimize impacts to avian and bat species during construction and operation of the Project.⁶⁷

42. Applicant has demonstrated that it will minimize and/or avoid impacts to aquatic ecosystems.⁶⁸ Applicant consulted with USFWS and GFP regarding the federally-and state-listed aquatic species with potential to occur in or near the Project, and both agencies agree that the species are not anticipated to be affected by the Project.⁶⁹

43. Applicant has demonstrated that it will minimize and/or avoid impacts to land use.⁷⁰ The Project will not displace existing residences or businesses.⁷¹ In all areas proposed for ground disturbance, Applicant will coordinate with the landowners to minimize impacts to the extent practicable so as to maintain opportunities to continue current land uses.⁷² Areas disturbed due to construction that would not host Project facilities would be re-vegetated with vegetation types matching the surrounding agricultural landscape.⁷³ Agricultural uses may continue within the Project Area during construction and operation.⁷⁴

44. Applicant has demonstrated that it will minimize and/or avoid impacts to recreation.⁷⁵ Only five turbines and associated infrastructure will be located on three of the Walk-In Area parcels.⁷⁶ To address concerns related to potential viewshed impacts at Punished Woman's Lake, Applicant voluntarily agreed to a turbine setback of two miles from the shoreline of Punished Woman's Lake.⁷⁷

45. Applicant has demonstrated that it will minimize and/or avoid impacts to conservation easements and publicly-managed lands.⁷⁸ Applicant coordinated with the USFWS to identify and avoid areas held as conservation easements by the USFWS within the Waubay National Wildlife Refuge Complex (i.e., grassland easements, wetland easements, and waterfowl production area easements).⁷⁹ The Project has been designed such that no Project facilities (e.g., turbines, collector lines, access roads) would be placed on these USFWS Wetland, Conservation, or Grassland Easements, and thus, no direct impacts to these easement areas would occur.⁸⁰ The Project will also avoid direct impacts to all Game Production Areas and Waterfowl Production Areas.⁸¹

46. In accordance with Federal Aviation Administration (FAA) regulations, the turbine towers would be painted off-white to reduce potential glare and minimize visual impact.⁸² No scenic resources with sensitive viewsheds are located within the Project Area or within viewing

⁶⁷ See Ex. A7 at 16 (Phillips) and Ex. A8 at 10-11 (Phillips); Ex. A1 at § 14.3.2.5 (Application).

⁶⁸ See Ex. A1 at § 15.2 (Application); Ex. A7 at 13 (Phillips).

⁶⁹ See Ex. A1 at § 15.2 (Application); Ex. A7 at 13 (Phillips).

⁷⁰ See Ex. A1 at §§ 16.1.2, 16.2.2 (Application).

⁷¹ Ex. A1 at 16-3 (Application).

⁷² Ex. A7 at 7 (Phillips).

⁷³ Ex. A1 at 16-3 (Application); Ex. A7 at 14 (Phillips).

⁷⁴ Ex. A1 at 16-3 (Application).

⁷⁵ See, e.g., Ex. A1 at §§ 13.3.2, 16.2.2, 16.6.2 (Application).

⁷⁶ Ex. A7 at 7 (Phillips).

⁷⁷ Ex. A9 at 6 (Mauersberger); Ex. A1 at 10-3 (Application).

⁷⁸ See Ex. A1 at § 16.2.2 (Application).

⁷⁹ Ex. A8 at 6 (Phillips).

⁸⁰ Ex. A1 at 16-4 (Application).

⁸¹ Ex. A1 at 16-4 (Application); Ex. A8 at 6 (Phillips).

⁸² Ex. A1 at 16-13 (Application).

distance of the Project; therefore, no impacts to scenic resources would result from construction or operation of the Project.⁸³

47. With respect to cultural and historical architectural resources, the State Historic Preservation Office (SHPO) made four recommendations.⁸⁴ First, the SHPO recommended that an official record search be conducted for the Project. Applicant satisfied this recommendation when it conducted the Level I cultural resources records search in June 2017.⁸⁵ Second, the SHPO recommended that a Level III Intensive Survey be completed for the Project Area. Applicant completed Level III intensive cultural resource surveys in December 2017 in areas of potential ground disturbance determined to have high probability of sensitive cultural resources.⁸⁶ The Level III survey results were provided to the SHPO, and the SHPO issued a letter stating that the Project would not encroach upon, damage or destroy any properties listed in the State or National Register of Historic Places (NRHP) or the environs of such property.⁸⁷ Third, the SHPO recommended that Applicant analyze the visual effects to architectural resources located within one mile of the Project, which Applicant completed.⁸⁸ No historic architectural resources were identified within the proposed Project footprint or direct area of potential effects.⁸⁹ Within the visual area of potential effects, there are three structures recommended eligible for listing on the NRHP; however, the Project will have no adverse effect on the resources.⁹⁰ Fourth, the SHPO recommended that Applicant contact the Tribal Historic Preservation Officers (THPO) in South Dakota. Applicant has engaged in ongoing voluntary coordination with the Sisseton-Wahpeton Oyate (SWO) to seek input on cultural resources in the Project Area, the Cultural Resources Monitoring and Management Plan (CRMMP), and the proposed cultural resource surveys for the Project.⁹¹ Applicant completed tribal resource surveys with SWO in May 2018.⁹² Commission staff witness Ms. Olson stated that the SHPO's recommendation that Applicant reach out to Native American tribes and consult on tribal resources has been satisfied.⁹³

48. Applicant has demonstrated that it will minimize and/or avoid impacts to cultural resources.⁹⁴ Applicant conducted multiple cultural resource surveys to identify cultural resources within the Project Area.⁹⁵ Applicant would avoid direct impacts to identified cultural resources as defined in the CRMMP and in coordination with the SWO.⁹⁶ Both the SHPO and SWO have agreed that the measures outlined in the CRMMP are appropriate to avoid negatively impacting landmarks and cultural resources of historic, religious, archaeological, scenic, natural, or other cultural significance.⁹⁷ Further, Applicant's CRMMP provides a plan for unanticipated discovery of sensitive cultural resources, should any be unearthed during construction.⁹⁸

⁸³ Ex. A1 at 16-14 (Application); ARSD 20:10:22:23(6).

⁸⁴ Ex. S3 at 3-4 (Olson).

⁸⁵ See Ex. A7 at 17 (Phillips); Ex. A1 at Appendix M (Application); see also Ex. S3 at 4 (Olson).

⁸⁶ See Ex. A7 at 17 (Phillips).

⁸⁷ Ex. A8-1 at 2 (SHPO Letter, dated February 14, 2018).

⁸⁸ See Ex. A7 at 18 (Phillips); see also Ex. S3 at 4 (Olson).

⁸⁹ Ex. A7 at 18 (Phillips).

⁹⁰ Ex. A7 at 18 (Phillips).

⁹¹ Ex. A1 at 21-16 (Application); Ex. A7 at 5 (Phillips).

⁹² Ex. A15 at 3 (Gunderson).

⁹³ Evid. Hrg. Tr. at 293 (Olson); Ex. S3 at 4 (Olson).

⁹⁴ See Ex. A1 at § 21.5.2 (Application); Ex. A7 at 19 (Phillips); Ex. A8 at 3-4 (Phillips).

⁹⁵ See Ex. A1 at § 21.5.1, Appendix M, Appendix N, Appendix O (Application); Ex. A7 at 17-18 (Phillips).

⁹⁶ See Ex. A1 at 3-2 (Application).

⁹⁷ See Ex. A1 at 21-16 (Application); Ex. A7 at 19 (Phillips).

⁹⁸ Ex. A8 at 3 (Phillips).

49. Commission staff and Applicant have agreed upon Permit Conditions 11 through 13 regarding cultural resources, which are attached hereto.

2. Social and Economic.

50. Apex acquired the Dakota Range Project from a small local developer, Wahpeton Wind, in March 2015.⁹⁹ The Project was acquired after initial site selection and a specific area was offered for sale; therefore, Apex was not involved in considering broader alternative locations.¹⁰⁰ The identification of the final Project site was primarily driven by: (1) the site's strong wind speeds; (2) direct access to transmission interconnection; (3) land use and environmental compatibility with wind development; (4) landowner support for wind energy development; and (5) the Project's ability to avoid or minimize potential adverse impacts to cultural resources, wetlands, grasslands, and wildlife species of concern.¹⁰¹

51. Participating landowners Mr. Falk and Ms. Moyer testified regarding their support for the Project.¹⁰² The Project will provide an additional stable source of income for landowners.¹⁰³ Mr. Falk and Ms. Moyer also testified to their good working relationships with Applicant and their belief that Applicant has shown itself to be responsive and thoughtful.¹⁰⁴ Further, the Project uses a community compensation formula that does not limit compensation to only those landowner participants who host Project facilities.¹⁰⁵

52. Applicant has demonstrated that construction and operation of the Project will result in benefits to South Dakota and local economies.¹⁰⁶ The Project will create temporary job opportunities during construction, and permanent operations and maintenance job opportunities.¹⁰⁷ Additionally, local industrial businesses would also likely benefit from construction-related expenditures for the Project.¹⁰⁸ The Project will make lease payments to participating landowners and will provide long-term benefits to the state and local tax base.¹⁰⁹

53. Applicant has demonstrated that there was no market data indicating the Project would have a negative impact on either rural residential or agricultural property values in the area surrounding the Project.¹¹⁰ Mr. MaRous, a South Dakota State Certified General Appraiser and a certified Member Appraisal Institute appraiser, conducted a Market Analysis to analyze the potential impact of the Project on the value of the surrounding properties and found no credible data indicating property values will be adversely impacted due to proximity to the Project.¹¹¹

54. Commission staff's witness, Mr. Lawrence, also a South Dakota State Certified General Appraiser and a certified Member Appraisal Institute appraiser conducted his own analysis of the sales of six Brookings County residential properties in proximity to wind turbines

⁹⁹ Ex. A1 at 2-1 (Application).

¹⁰⁰ Ex. A1 at 10-1 (Application).

¹⁰¹ Ex. A1 at 10-1 – 10-2 (Application).

¹⁰² See Ex. A11 (Moyer) and Ex. A12 (Falk); Evid. Hrg. Tr. at 138 – 158 (Falk) and 159 – 168 (Moyer).

¹⁰³ See Ex. A11 at 2 (Moyer); Ex. A12 at 2 (Falk).

¹⁰⁴ See Ex. A12 at 2 (Falk); Ex. A11 at 2 (Moyer); Evid. Hrg. Tr. at 140-141 (Falk).

¹⁰⁵ Evid. Hrg. Tr. at 92-93, 97 (Mauersberger).

¹⁰⁶ See Ex. A1 at § 21.1.2.1 (Application).

¹⁰⁷ Ex. A1 at 21-3 (Application).

¹⁰⁸ Ex. A1 at 21-3 (Application); Ex. A9 at 18 (Mauersberger).

¹⁰⁹ Ex. A9 at 19 (Mauersberger); Ex. A1 at 21-4 – 21-5 (Application).

¹¹⁰ See Ex. A1 at § 21.1.2.3 (Application); Ex. A13 at 5, 6 (MaRous); Ex. A13-1 at 3, 35 (Market Impact Analysis); Ex. A14 at 2, 11, 13 (MaRous); Evid. Hrg. Tr. at 171-172 (MaRous).

¹¹¹ See Ex. A13 at 2, 6 (MaRous); Ex. A13-1 at 3, 35 (Market Impact Analysis); Evid. Hrg. Tr. at 169 (MaRous).

and testified that based on his research, 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, turbine, or wind project.¹¹² However, the summary of Mr. Lawrence's research was limited to Brookings County and he analyzed a small population of sales.¹¹³

55. There is no basis in the record to require a property value guarantee. There is no record evidence that property values will be adversely affected.¹¹⁴

56. The record demonstrates that the Project is not anticipated to adversely impact communications systems.¹¹⁵ If, after construction, Applicant receives information relative to communication systems interference potentially caused by operation of the wind turbines in areas where reception is presently good, Applicant has committed to resolve such problems on a case-by-case basis.¹¹⁶

57. The record demonstrates that Applicant has avoided and/or minimized impacts to transportation.¹¹⁷ Applicant will coordinate with applicable local road authorities to establish road use agreements, as needed, to minimize and mitigate Project impacts to haul roads.¹¹⁸ For example, Applicant has entered into a road use agreement with Grant County.¹¹⁹ The Project will utilize the One-Call program to locate underground infrastructure prior to construction.¹²⁰ In addition, once construction is completed, the Project will register its facilities with the One-Call program.¹²¹

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

58. The record demonstrates Applicant has minimized impacts from noise.¹²² Commission staff and Applicant agreed to Permit Condition 27, attached hereto.

59. Section 1211.04(13) of the Zoning Ordinance for Grant County imposes the following noise limit on wind energy facilities: Noise level shall not exceed 50 [A-weighted decibel (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.¹²³

60. Section 5.22.03(12) of the Comprehensive Zoning Regulations for Codington County requires the following: Noise level shall not exceed 50 dBA, average A-weighted Sound pressure including constructive interference effects at the property line of existing off-site residences, businesses, and buildings owned and/or maintained by a governmental entity.¹²⁴

¹¹² Ex. S6 at 4 (Lawrence); *see also* Evid. Hrg. Tr. at 289-290 (Lawrence).

¹¹³ Ex. S6 at 5, 6 (Lawrence).

¹¹⁴ *See* Ex. A1 at § 21.1.2.3 (Application); Ex. A13 at 5, 6 (MaRous); Ex. A13-1 at 3, 35 (Market Impact Analysis); Ex. A14 at 2, 11, 13 (MaRous); Evid. Hrg. Tr. at 171-172 (MaRous) and 289-290 (Lawrence).

¹¹⁵ *See* Ex. A1 at § 16.5 (Application).

¹¹⁶ Ex. A1 at 16-11 (Application).

¹¹⁷ *See* Ex. A1 at § 21.4.2 (Application).

¹¹⁸ Ex. A9 at 16 (Mauersberger); Ex. A1 at 21-12 (Application).

¹¹⁹ Evid. Hrg. Tr. at 67-68 (Mauersberger).

¹²⁰ Ex. A1 at 25-2 (Application); Ex. A9 at 16 (Mauersberger).

¹²¹ Ex. A1 at 25-2 (Application); Ex. A9 at 16 (Mauersberger).

¹²² *See* Ex. A1 at § 16.3.2 (Application).

¹²³ *See* Ex. A5 at 4 (O'Neal).

¹²⁴ *See* Ex. A5 at 5 (O'Neal).

61. Applicant conducted a Sound Level Modeling Report to measure the Project's anticipated sound level in order to determine whether the Project will comply with the noise limits established by Grant and Codington counties.¹²⁵ The projected one-hour sound levels from the Project are 45 dBA or less at all participating residences and 44 dBA or less at all non-participating residences.¹²⁶

62. The record demonstrates that Applicant has minimized and/or avoided impacts from shadow flicker.¹²⁷ Applicant has committed to limit shadow flicker to 30 hours or less per year at any existing non-participating residence, business, or building owned and/or maintained by a governmental entity, unless otherwise agreed to by the landowner.¹²⁸ Applicant will take steps to mitigate shadow flicker concerns at residences that could experience shadow flicker levels above 30 hours per year.¹²⁹

63. There is no record evidence that the proposed Project will substantially impair human health.¹³⁰ Construction and placement of facilities meet or exceed industry standards established for protection of the health and welfare of residences and businesses in and around the Project.¹³¹ Further, the South Dakota Department of Health provided Commission staff with a letter stating that the Department of Health has not taken a formal position on the issue of wind turbines and human health.¹³² The South Dakota Department of Health referenced the Massachusetts Department of Public Health and Minnesota Department of Health studies and noted that those studies generally conclude that there is insufficient evidence to establish significant risk to human health.¹³³ Applicant's witness, Dr. Roberts, analyzed and reviewed peer reviewed, published literature and did not identify any scientific works that provide objective support for claims that wind turbines cause adverse health effects.¹³⁴ He concluded that there is no peer-reviewed, scientific data to support a claim that wind turbines are causing disease or specific health conditions.¹³⁵

64. The Project will utilize aviation warning lights compliant with the FAA requirements. The FAA determines lighting specifications and determines which turbines must be equipped with lights.¹³⁶

65. Commission staff witness, Mr. Thurber, testified that use of the Aircraft Detection Lighting System (ADLS) by Applicant would be beneficial for the public.¹³⁷

66. Ms. Kaaz testified that she is a landowner within the Project footprint with multiple wind turbines very near her property line.¹³⁸ Due to the proximity of the wind turbines,

¹²⁵ See Ex. A5 at 5 (O'Neal); Ex. A1 at Appendix I (Application); see also Ex. A24 (Updated Wind Turbine Coordinates).

¹²⁶ Ex. A6 at 7 (O'Neal); Evid. Hrg. Tr. at 400-403.

¹²⁷ See Ex. A1 at § 16.4 (Application); Ex. A5 at 11 (O'Neal).

¹²⁸ Ex. A1 at 16-11 (Application); Permit Conditions 28 and 29.

¹²⁹ Permit Condition 28.

¹³⁰ See, e.g., Ex. A2 at 13-14 (Roberts).

¹³¹ See, e.g., Ex. A9 at 14-15 (Mauersberger); Ex. A1 at § 25.2 (Application).

¹³² See Ex. S1 at 3 (Thurber).

¹³³ See Ex. S1 at 3 (Thurber); Ex. A2 at 13-14 (Roberts).

¹³⁴ Ex. A2 at 12 (Roberts).

¹³⁵ Ex. A2 at 12 (Roberts); see also Ex. A2 at 13 (Roberts) ("Despite the attribution of various health events to wind turbines, there has not been a specific health condition documented in the peer-reviewed published literature to be recognized by the medical community or professional societies as a disease caused by exposure to sound levels and frequencies generated by the operation of wind turbines.").

¹³⁶ Ex. A1 at 9-4 (Application).

¹³⁷ Evid. Hrg. Tr. at 309 (Thurber).

in particular turbine 67 which is only 1271 feet from her property line, she requested that the Project be required to use the ADLS.¹³⁹

67. ARSD 20:10:22:18(3) requires an analysis of the compatibility of the Project with present land use of the surrounding area, with special attention paid to the effects on rural life and the business of farming. The Commission accordingly finds and concludes that it has the authority to require Applicant to implement the use of the ADLS.

68. The record evidence supports implementing a Permit Condition requiring Applicant to use the ADLS within the Project Area.¹⁴⁰

69. Applicant provided evidence that the potential for ice to be thrown from turbines is not a common occurrence.¹⁴¹ The Project meets both the state and county non-participating property line setback requirements.¹⁴² The concern for ice shedding is typically within 300 feet of the turbine. While there is the potential for ice to be thrown further, impacts are not anticipated at 620 feet from a turbine (the closest distance of a turbine to a nonparticipating property line).¹⁴³ The record also demonstrates that Applicant has in place appropriate operational mechanisms to minimize and avoid the potential for ice throw. In addition, turbines have ice detection systems that will detect icing conditions from a remote control center, enabling the turbines to be paused remotely in the event that icing is taking place.¹⁴⁴ Further, Applicant has committed to the following condition: 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 towers, 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.

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.

70. The record demonstrates that the Project will not unduly interfere with the orderly development of the region, as demonstrated by Grant County's and Codington County's granting of conditional use permits for the Project.¹⁴⁵

71. Ms. Mogen and Ms. Kaaz proposed a two-mile setback, with the option of a waiver, from non-participating landowners in order to protect public health and safety, and to protect property rights.¹⁴⁶ Ms. Mogen and Ms. Kaaz did not present any evidence in support of the two-mile setback, and did not request a two-mile setback from the County during the County

¹³⁸ Ex. TK-1a; Evid. Hrg. Tr. at 348, 351-355; Ex. A27.

¹³⁹ Ex. S1, JT-1, pg. 88 of 156.

¹⁴⁰ Permit Condition 42.

¹⁴¹ Evid. Hrg. Tr. at 424 (Gunderson) (CONFIDENTIAL); Evid. Hrg. Tr. at 434-435 (James) (CONFIDENTIAL).

¹⁴² SDCL 43-13-24. Codington County, Ordinance 65 §5.22.03(1)(d)(c) and Grant County Compiled Zoning Ordinances, § 1211.04(2)(c).

¹⁴³ Evid. Hrg. Tr. at 435 (James) (CONFIDENTIAL).

¹⁴⁴ Evid. Hrg. Tr. at 432 (James) (CONFIDENTIAL).

¹⁴⁵ See Ex. A1 at 17-1 (Application).

¹⁴⁶ See Evid. Hrg. Tr. at 331 (Mogen) and 356 (Kaaz).

conditional use permitting process for the Project.¹⁴⁷ Nothing in the record supports a proposed two-mile setback from non-participants' land.

72. Ms. Kaaz raised concerns regarding the proximity of the turbines to her land. However, the Project complies with all state and county setback requirements. Additionally, Applicant committed that it will use no more than three of the four turbine locations closest to Ms. Kaaz's property (Turbines 67, 68, 69 and A26).¹⁴⁸

VI. GENERAL.

73. 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. 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.¹⁴⁹

74. 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.

75. 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.

76. 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.

77. 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.

78. 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.

79. 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.

¹⁴⁷ See Evid. Hrg. Tr. at 332-333 (Mogen) and 355 (Kaaz); see also Evid. Hrg. Tr. at 72-73 (Mauersberger).

¹⁴⁸ Evid. Hrg. Tr. at 220 (Gunderson).

¹⁴⁹ Ex. S1 at 4 (Thurber).

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

81. 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 over the subject matter and parties to this proceeding pursuant to SDCL Chapter 49-41B and ARSD Chapter 20:10:22. Subject to the findings made on the four elements of proof under SDCL 49-41B-22, the Commission has authority to grant, deny, or grant upon terms, conditions, or modifications, a permit for the construction, operation, or maintenance of the Project.

2. The Dakota Range Wind 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 49-41B and ARSD Chapter 20:10:22. 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.

4. The Commission finds there was no showing that there are any deliberate misstatements of material facts in the Application or in accompanying statements or studies.

5. SDCL 49-41B-1 provides in part that "[t]he Legislature also finds that by assuming permit authority, that the state must also ensure that these facilities are constructed in an orderly and timely manner so that the energy requirements of the people of the state are fulfilled." The Commission finds that this language is directed toward ensuring that the permit process is conducted in a timely manner.

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. The Project, if constructed and operated 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.

9. The Project, if constructed and operated in accordance with the terms and conditions of this decision, will not pose a threat of serious injury to the environment nor to the social and economic conditions of inhabitants or expected inhabitants in the siting area.

10. The Project, if constructed and operated 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.

11. The Project, if constructed and operated 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.

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

13. The Commission has authority to revoke or suspend any permit granted under the South Dakota Energy Facility Permit Act for failure to comply with the terms and conditions of the permit pursuant to SDCL 49-41B-33 and must approve any transfer of the permit granted by this Order pursuant to SDCL 49-41B-29.

14. The Commission concludes that it needs no other information to assess the impact of the proposed facility or to determine if Applicant has met its burden of proof.

15. The Commission concludes that it possesses the authority under SDCL 49-41B-25 to impose conditions on the construction, operation, or maintenance of the Project, that the Permit Conditions set forth in Attachment A 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.

16. To the extent that any 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.

It is therefore

ORDERED, that a permit to construct the Dakota Range Project is granted to Dakota Range I, LLC and Dakota Range II, LLC, subject to the Permit Conditions set forth in Attachment A.

NOTICE OF ENTRY

PLEASE TAKE NOTICE that this Final Decision and Order Granting Permit to Construct Wind Energy Facility was duly issued and entered on the 23rd day of July 2018.

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 and mail. By: <u>Adam de Hueck</u> Date: <u>7/23/18</u> (OFFICIAL SEAL)
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BY ORDER OF THE COMMISSION:

Kristie Fiegen
KRISTIE FIEGEN, Chairperson

Gary Hanson
GARY HANSON, Commissioner

Chris Nelson
CHRIS NELSON, Commissioner

ATTACHMENT A
PERMIT CONDITIONS

1. Applicant will obtain all governmental permits which reasonably may be required by any township, county, state or federal agency, or any other governmental unit for construction and operation activity prior to engaging in the particular activity covered by that permit. Copies of any permits obtained by Applicant shall be sent to the Commission.
2. Applicant shall construct, operate, and maintain the Project in a manner consistent with (1) descriptions in the Application, (2) Application supplements, (3) responses to any data requests, (4) the Final Decision and Order Granting Permit to Construct Wind Energy Facility, Attachment A-Permit Conditions, (5) any applicable industry standards, (6) any permits issued by a federal, state, or local agency, and (7) 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 are free to use the complaint process free from retribution or consequence regardless of any private easement term to the contrary.
4. Applicant shall provide each landowner in the Project Area with the following information:
 - a) A copy of the Final Decision and Order Granting Permit to Construct Wind Energy Facility;
 - b) Detailed safety information describing:
 - 1) Reasonable safety precautions for existing activities on or near the Project,
 - 2) Known activities or uses that are presently prohibited near the Project, and
 - 3) Other known potential dangers or limitations near the Project;
 - c) Construction/maintenance damage compensation plans and procedures;
 - 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 be made aware of the terms and conditions of this Permit.

6. Except as otherwise provided in the Permit Conditions, Applicant shall comply with all mitigation measures set forth in the Application and Applicant's responses to Commission staff data requests. Material modifications to the mitigation measures shall be subject to prior approval of the Commission.
7. Applicant will negotiate road use agreements with Grant County, Codington County, and all affected townships, if required. Applicant will follow the terms of all road use agreements. Applicant shall take appropriate action to mitigate wind-blown particles created throughout the construction process, including but not limited to 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. 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 the townships or counties will not provide such documentation, then Applicant shall provide a report to the Commission on the outstanding road repair issues and how those issues will be resolved.
 - f) Privately owned areas used as temporary roads 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 agreed upon otherwise with the federal, state, county, or township entities, or the landowner.
 - h) Applicant shall use appropriate preventative measures to prevent damage to paved roads and to remove excess soil or mud from such roadways.
9. Applicant will provide signage that identifies road closures and disturbances resulting from the Project in accordance with the most recent editions of the Manual on Uniform Traffic Control Devices as published by the Federal Highway Administration.

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. Sites identified as potentially eligible for National Register of Historic Places (NRHP) listing will be addressed by micrositing facilities to avoid impacts. If complete avoidance cannot be achieved, Applicant shall notify the Commission and work with the South Dakota State Historical Society SHPO program to minimize impacts.
 - a) An example of an avoidance measure that may be implemented is rerouting a collector line road around a resource, or boring under it to avoid ground disturbance.
 - b) If sites must be impacted that are afforded regulatory protection and would require mitigation, the SHPO will be engaged to ensure regulatory compliance is achieved.
12. Applicant agrees to follow the unanticipated discovery plan outlined in the document entitled *Cultural Resources Monitoring and Management Plan for the Dakota Range I Wind Project* (CRMMP), and follow SDCL 34-27-25, 34-27-26, and 34-27-28.
13. Applicant shall file the final cultural resources report with the Commission prior to construction. If any potential adverse impacts to NRHP unevaluated, listed, or eligible cultural resources are identified in the final cultural resources report, Applicant shall comply with the requirements of the CRMMP.
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. 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 will be given a copy of the SWPPP and requirements will be reviewed with them prior to the start of construction.
15. Applicant will repair and restore areas disturbed by construction or maintenance of the Project. Except as otherwise agreed to by the landowner, restoration will include replacement of 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 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 topsoil to ensure roads remain low-profile and the contours align with the surrounding area;
 - b) Store topsoil separate from 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/or 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.
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 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 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 three and one-half feet, 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 adjustments of 250 feet or less from the turbine locations identified in the Application without prior Commission approval, so long as the turbine shifts comply with county and state setback requirements, comply with specified noise and shadow flicker requirements, cultural resource impacts are avoided or minimized per the CRMMP, environmental setbacks are adhered to as agreed upon with the USFWS and the GFP, and wetland impacts are avoided. Prior to implementing the turbine adjustment, Applicant will file in the docket an affidavit demonstrating compliance with the limitations set forth above. Any turbine adjustment that does not comply with the aforesaid limitations would 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 adjustment that includes:
 - An affidavit describing the proposed turbine adjustment, the reason for the adjustment, the reason the 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 adjustment (in different colors);
 - Once received, the information would be reviewed by Commission staff, and Commission staff will have 10 calendar days within which to request further Commission review.
 - If no further review is requested, Applicant may proceed with the adjustment.
 - If further review is requested, the Commission will issue a decision regarding 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 access roads, the collector system, the operations and maintenance facility, the Project substation, and temporary facilities, so long as they are located on leased land, cultural resource impacts are avoided or minimized per the CRMMP, environmental setbacks are adhered to as agreed upon with the U.S. Fish and Wildlife Service (USFWS) and the South Dakota Game, Fish and Parks Department (GFP), wetland impacts are avoided or are in compliance with applicable regulations and requirements, and all other applicable regulations and requirements are met.
24. The terms and conditions of the Permit shall be made a uniform condition of construction, 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 to the property in question 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.
25. 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.
26. Applicant will provide Global Positioning System (GPS) 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.
27. The Project, exclusive of all unrelated background noise, shall not generate a long-term average sound pressure level (equivalent continuous sound level, Leq), 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 45 dBA within 25 feet at any non-participating residence or more than 50 dBA within 25 feet at any participating residence. Applicant shall, upon Commission formal request, conduct field surveys or provide post-construction monitoring data verifying compliance with specified noise level

limits using applicable American National Standards Institute (ANSI) methods. If the long-term average level exceeds 45 dBA at any non-participating residence or 50 dBA at any participating residence, then the Project Owner shall take whatever steps are necessary in accordance with prudent operating standards to rectify the situation. Sound monitoring will not be repeated in a representative area during any five-year period unless operational or maintenance changes result in a reasonable assumption of higher turbine sound levels.

28. Applicant will take steps to mitigate shadow flicker concerns at residences that could experience shadow flicker levels above 30 hours per year.
29. Not less than 30 days prior to 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 specifications of the turbine model selected;
 - 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 Applicant's voluntary commitment of 30 hours per year at any non-participating residence; and
 - d) such additional Project preconstruction information as Commission staff requests.
30. Within 90 days of 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 and the voluntary commitments set forth in Table 10-1 of the Application;
 - b) 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
 - c) a summary of known landowner complaints and Applicant's plan for resolving those complaints.
31. For purposes of this Project and the commitments herein, "residences," "businesses," and "buildings owned and/or maintained by a governmental entity" shall include only those that are in existence and in use as of the date of the Commission's order issuing a permit.
32. 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.

33. 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 Sheriff of Codington County, the Sheriff of Grant County, the Codington County Office of Emergency Management, and the Grant County Office of Emergency Management.
34. Applicant agrees to undertake two years of independently-conducted post-construction avian mortality monitoring for the Project, and to provide a copy of the report to the USFWS, GFP, and the Commission. Based on the results of the monitoring, the need for and scope of an additional year of independently-conducted post-construction avian mortality monitoring will be determined in coordination with USFWS and GFP.
35. Applicant shall file the 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.
36. Applicant shall provide a public liaison officer, approved by the Commission, to facilitate the exchange of information between Applicant, including its contractors, and 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 immediate 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. As soon as 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 ninety days after the Project commences commercial operations, unless the appointment is extended by order of the Commission.
37. If the Project is decommissioned, Applicant will follow Section 24 of the Application, the decommissioning plan laid out in Appendix P of the Application, as supplemented by Applicant in Exhibit A4-2, and answers to Commission staff's data requests in Exhibit S1. The Commission shall be notified prior to any decommissioning action.
38. If Applicant is purchased by Xcel Energy, as stated in Section 7.0 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 Dakota Range, Applicant shall file a decommissioning plan with a proposal for financial assurance consistent with the provisions in Section 37 of the EL17-055 Permit Conditions, at least 60 days prior to construction, for Commission approval. No construction may occur until the Commission approves the decommissioning plan.

39. Applicant's proposed turbine shifts, identified as Turbine 34a, Turbine 60a, and Turbine A12a in Exhibit A15-3, are hereby incorporated into the approved Project configuration.
40. 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 towers, 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. The Project Owner will pay for any documented damage caused by ice thrown from a turbine.
41. Applicant may construct turbines on only three of the following four turbine locations: Turbines 67, 68, 69 and A26.
42. Applicant shall utilize an Aircraft Detection Lighting System.