BLACK HILLS POWER, INC.
d/b/a BLACK HILLS ENERGY
EL25-012

REQUEST DATE : 05/01/25

RESPONSE DATE : 05/15/25

REQUESTING PARTY: South Dakota Public Utilities Commission Staff

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SDPUC Request No. 3.1:

Given BHE's WEIM participation, does BHE expect to become a member of CAISO in the future?

Response to SDPUC Request No. 3.1:

No. Black Hills Power does not expect to become a full member of CAISO. Black Hills Power expects to only sign the agreements necessary to participate in the WEIM, which can be unilaterally terminated with 180- or 90-days' notice (depending on the agreement) without incurring an exit fee.

Responder: Eric Egge

Attachments: None

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SDPUC Request No. 3.2:

Which consulting group did BHE use that helped lead to the determination to participate in WEIM? Provide a copy of the consultant's report and summarize the report by providing the answers to DRs 3-3 through 3-7. (Please source specific pages of the report when answering these questions.)

Response to SDPUC Request No. 3.2:

Black Hills Power and Cheyenne Light Fuel and Power Company both d/b/a Black Hills Energy consulted with The Brattle Group to conduct a Real-Time Market Participation Benefits Study.

Responder: Eric Egge

Attachments:

- Confidential Attachment SDPUC 3.2 –Brattle Real-Time Market Study

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SDPUC Request No. 3.3:

Did BHE compare full RTO (SPP) membership versus standing up its own balancing authority? Explain why standing up its own balancing authority was chosen.

Response to SDPUC Request No. 3.3:

Black Hills Power evaluated the implications of joining the full SPP RTO Expansion versus standing up its own balancing authority. Upon implementation of the RTO Expansion, WAPA would no longer be a balancing authority or provide balancing authority services. SPP also declined to offer balancing authority-only services apart from being a full RTO member.

At the time that Black Hills Power was required to provide notice to SPP of whether it would join the RTO Expansion, there were many implementation details that were not known with implications to customers. For example, there was uncertainty around planning reserve margin, large generator interconnection queue transition, and path- to flow-based transmission service implications on WECC rated paths at the time Black Hills Power had to make a decision. Additionally, Black Hills Power has concerns regarding the size of the RTO Expansion footprint and its ability to provide long-term benefits – leveraging Black Hills Power's observation of the challenges that the WEIS had with a footprint that is larger than the proposed RTO Expansion.

The uncertainty around key aspects of the RTO Expansion and certainty that Black Hills Power's current balancing authority services would be unavailable upon full implementation of the RTO Expansion led Black Hills Power to choose to become its own balancing authority.

Responder: Eric Egge

Attachments: None

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SDPUC Request No. 3.4:

Did BHE compare potential benefits of joining a full RTO (SPP) versus the benefits of standing up its own balancing authority? Explain. What were the material drivers and assumptions of the determination of these benefits? What is BHE losing by not being part of an RTO? What resource adequacy and system resiliency risks will be present due to not being part of an RTO?

Response to SDPUC Request No. 3.4:

Please see the response to SDPUC Request No. 3.3. Black Hills Power did not perform a study that estimated the quantitative benefits of joining the full RTO.

Responder: Eric Egge

Attachments: None

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SDPUC Request No. 3.5:

What was the determined effect of SPP's decision of not optimizing Markets+ on BHE? What assumptions did you make to reach this conclusion? How did these assumptions compare to the assumptions used to suggest joining WEIM?

Response to SDPUC Request No. 3.5:

Without a defined market-to-market optimization between Markets+ and the RTO Expansion, Black Hills Power's participation in Markets+ would have amounted to the market only optimizing generation resources and load within the Black Hills Power balancing authority area while paying the full market administration costs. The determined effect is little to no market value for Black Hills Power customers while required to pay the full market administration costs.

Conversely, Black Hills Power has direct transmission access to the WEIM market and would not rely on market-to-market optimization with neighboring markets to gain value from the market optimization from the start.

Responder: Eric Egge

Attachments: None

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SDPUC Request No. 3.6:

Does the relative size and participants in WEIM and in Markets+ have any effect on potential optimization/non-optimization outcomes? If not, why not?

Response to SDPUC Request No. 3.6:

Yes. The market size and participants has a direct impact on the ability of Black Hills Power to gain benefits for its customers through the market optimization. Generally, the larger the market footprint, both geographically and total load, the greater the opportunity for benefits due to diversity of generating resources and load patterns within the market. The participants within a market have a direct impact on the geographic and total load size, as well as the ability of any utility – such as Black Hills Power – to access the market based upon transmission transfer capability with other market participants.

As stated in the response to SDPUC 3.5, Black Hills Power does not have any direct transmission connections with announced Markets+ participants, nor is there a proposed market-to-market optimization solution between Markets+ and the RTO Expansion that would provide clear market opportunities for Black Hills Power in Markets+. Conversely, Black Hills Power has multiple transmission interconnections with PacifiCorp, who is a WEIM market participant.

Responder: Eric Egge

Attachments: None

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SDPUC Request No. 3.7:

How does what WEIM provides differ from what Markets+ provides? What assumptions have you had to make to determine the various outcomes of Markets+ and WEIM?

Response to SDPUC Request No. 3.7:

WEIM is only a real-time (within the hour) energy market whereas Markets+ will be a day-ahead and real-time market. The facts that influenced the decision between Markets+ and WEIM is the available transmission transfer capability between the known or announced market participants and certainty of market implementation at, or shortly after, implementation of the Black Hills balancing authority. Black Hills Power can participate in the WEIM in early May 2026. Markets+ will not be available until October 2027.

Responder: Eric Egge

Attachments: None

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SDPUC Request No. 3.8:

Refer to BHE's response to DR 2-1. Provide an itemized breakout of all the capital cost and an itemized breakout of all the O&M costs. Include in these breakouts any costs related to BHE having to stand up its own balancing authority.

Response to SDPUC Request No. 3.8:

Forecasted Capital Costs for Balancing Authority and WEIM Implementation:



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Forecasted O&M Costs for Balancing Authority and WEIM Implementation:



Responder: Denton McGregor

Attachments: None

CERTIFICATE OF SERVICE

I certify the foregoing document was filed through the South Dakota Public Utilities Commission website as a nondocketed filing this 15th day of May, 2025 and served on the following:

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