

STATE OF MINNESOTA
PUBLIC UTILITIES COMMISSION

Utility Information Request

Docket Number: E015/RP-21-33

Date of Request: September 19, 2022

Requested From: Minnesota Power

Response Due: September 29, 2022

Analyst Requesting Information: Sean Stalpes

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Type of Inquiry:

Financial		Rate of Return		Rate Design
Engineering		Forecasting		Conservation
Cost of Service		CIP	x	Resource Planning

If you believe your responses are proprietary, please indicate.

REQUEST NO. 5	<p>Pages 19-20 of MP's Reply Comments discuss MISO's Seasonal Accredited Capacity (SAC) proposal, which FERC accepted on August 31, 2022.</p> <p>Staff recognizes that seasonal LOLE values and resource-specific data are not currently available. However, staff requests that MP provide its preliminary assessment of the following issues:</p> <ul style="list-style-type: none"> • Please provide final or preliminary MISO seasonal reserve requirements for the 2023/24 Planning Year. • How might MP's spring, summer, fall, and winter requirements change based on the approved SAC? • How might MP's expected wind and solar accreditation change based on MISO's proposed ELCC for wind and solar on a seasonal basis?
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Response by: Eric Palmer

Title: Utility Planning Supervisor

Department: Utility Planning

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RESPONSE:

- *Please provide final or preliminary MISO seasonal reserve requirements for the 2023/24 Planning Year.*

MISO presented the preliminary Planning Reserve Margin (PRM) from the September 6, 2022 LOLEWG, the preliminary Planning Reserve Margin (PRM) is the following:

- Spring – 14.9%
- Summer – 7.4%
- Fall – 24.5%
- Winter – 25.5%

- *How might MP's spring, summer, fall, and winter requirements change based on the approved SAC?*

Under the new MISO seasonal construct Minnesota Power will have four separate requirements each planning year. Minnesota Power is a winter peaking utility and expects total capacity requirements will be greater in the MISO defined winter season than during the summer season, the summer season was the basis for the current annual based construct. Minnesota Power is not able to calculate what our final requirements are for the winter (expected timeline for final requirements is December 15, 2022), but at this time we anticipate it could result in increasing total capacity requirements from the current summer requirement by up to **[TRADE SECRET DATA BEGINS [REDACTED] TRADE SECRET DATA ENDS]**. With the new MISO Fall and Spring seasons also having higher planning reserve margins than the Summer season, Minnesota Power will expect the total capacity requirements to increase during those seasons, by **[TRADE SECRET DATA BEGINS [REDACTED] TRADE SECRET DATA ENDS]** when compared to summer.

Note, the higher seasonal requirements are being driven by the higher Planning Reserve Margin (PRM) requirements and Minnesota Power will need to consider its resource portfolio and the new seasonal variation of the accreditation values for winter, spring and fall. The final accreditation values for resources are still forthcoming, however, based on the preliminary analysis of SAC MW for a sampling of Minnesota Power generation units the Company anticipates to **[TRADE SECRET DATA BEGINS [REDACTED] TRADE SECRET DATA ENDS]**.

Minnesota Power will continue to evaluate its capacity needs as more information becomes available on MISO's seasonal construct. Minnesota Power anticipates it will know the final capacity position by end of December. Most of the critical information on accredited capacity values is anticipated to be published by MISO on December 15th, 2022. Given that the timeline for implementing the new seasonal construct is extremely short, this will limit the options for procuring any additional capacity if it is needed by the Company. For example, it is unrealistic to build new capacity before the start of the new MISO Planning Year 2023-2024, which starts June 1, 2023. Longer-term, Minnesota Power will plan to incorporate the seasonal construct into the IRP process.

Response by: Eric Palmer
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• ***How might MP's expected wind and solar accreditation change based on MISO's proposed ELCC for wind and solar on a seasonal basis?***

The impacts of the most recent MISO proposal on the new ELCC for wind and solar resources on a seasonal basis are difficult to assess, because the information has not been presented on a unit by unit basis. The information presented on a MISO-wide basis for wind and solar can provide the following insights: (Slide 20 from the presentation made at the August 24, 2022 MISO Resource Adequacy Subcommittee- RASC)

[https://cdn.misoenergy.org/20220824%20RASC%20Item%2007c%20Non-Thermal%20Accreditation%20Presentation%20\(RASC-2019-2%202020-4\)626036.pdf](https://cdn.misoenergy.org/20220824%20RASC%20Item%2007c%20Non-Thermal%20Accreditation%20Presentation%20(RASC-2019-2%202020-4)626036.pdf)

Observations of Portfolio 1 provide an indications of seasonal ELCC capacity for the initial planning year:

- Solar Capacity
 - o Winter Season – 0%
 - o Summer Season – 45%
 - o Spring Season – 40%
 - o Fall Season – 30%
- Wind Capacity
 - o Summer – 15%
 - o Winter – 15%
 - o Spring – 13%
 - o Fall – 13%

Minnesota Power is also monitoring the expected trend of lower ELCC values with higher levels of wind and solar penetration on the system (as shown in MISO Portfolios 2 and 3). These projections, and as the system continues to evolve, will likely have an impact on future wind and solar accreditation values. The Company's current IRP analysis did take into consideration a declining ELCC for wind and solar to help ensure today's resource plan actions can navigate the evolving accreditation space.

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