

**STATE OF NORTH DAKOTA
BEFORE THE
PUBLIC SERVICE COMMISSION**

NORTHERN STATES POWER COMPANY
ADVANCE DETERMINATION OF PRUDENCE –
FOUR REPOWERED WIND PROJECTS

CASE NO. PU-20-425
OAH FILE NO. 20200420

NORTHERN STATES POWER COMPANY
ADVANCE DETERMINATION OF PRUDENCE –
120 MW NORTHERN WIND FACILITY

CASE NO. PU-20-093
OAH FILE NO. 20210118

LATE-FILED EXHIBIT NSP-24

Contingency Reserve requirements are set annually by MISO based on the Most Severe Single Contingency. However, MISO can adjust the CR Requirement with 48 hour notice if necessary, due to changing reliability requirements. See Section 3.2.2 of BPM-002 below:

3.2.2 Market-Wide Contingency Reserve Requirements

MISO sets the Market-Wide Contingency Reserve Requirements based upon the following criteria:

- Hourly requirements will apply to both the Day-Ahead and Real-Time Energy and Operating Reserve Markets.⁴ The MISO Market-Wide Contingency Reserve Requirement may be adjusted anytime following the posting of the requirements 48 hours prior to the Operating Day if necessary due to changing reliability requirements, such as loss of most severe system contingency and MISO, in such cases, will post the revised requirements as quickly as possible.
- The hourly MISO Market-Wide Contingency Reserve Requirement will be set equal to the most restrictive requirement mandated by Electric Reliability Organization standards, applicable Regional Entity standards or applicable Contingency Reserve Sharing Agreement requirement allocations. In no case will the hourly MISO Market-Wide Contingency Reserve Requirement be set less than the largest single supply contingency (Resource or transmission). Currently, Electric Reliability Organization Standard BAL-002-3 indicates that, *"Each Responsible Entity shall develop, review and maintain annually, and implement an Operating Process as part of its Operating Plan to determine its Most Severe Single Contingency and make preparations to have Contingency Reserve equal to, or greater than the Responsible Entity's Most Severe Single Contingency available for maintaining system reliability"*. The MISO Market-Wide Contingency Reserve requirement may be adjusted after the close of the Day-Ahead Energy and Operating Reserve Market for the Real-Time Energy and Operating Reserve Market if one or more events result in a different requirement level.

65 PU-20-425 Filed 01/07/2022 Pages: 2
Late-Filed Exhibit NSP-24 - (not listed on Exhibit List)
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24 PU-20-93 Filed 01/07/2022 Pages: 2
Late-Filed Exhibit NSP-24 - (not listed on Exhibit List)
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- The hourly Market-Wide Spinning Reserve requirement will be equal to the greater of i) the most restrictive frequency responsive Contingency Reserve requirement, expressed in MW or as a percent of Contingency Reserve, specified by Electric Reliability Organization standards, applicable Regional Reliability Organization standards and/or applicable Contingency Reserve Sharing Agreements or ii) the most restrictive spinning reserve requirement, expressed in MW or as a percent of Contingency Reserve, specified by Electric Reliability Organization standards, applicable Regional Reliability Organization standards and/or applicable Contingency Reserve Sharing Group agreements.

The current market wide Spinning Reserve requirement is 900.5 MW for all hours except hours ending 6, 7 and 8 which have a 1201.2 MW requirement.

Schedule 5 of the MISO Tariff states that, “A Market Participant’s hourly Market-Wide Spinning Reserve Obligation shall be equal to the Market-Wide Spinning Reserve Requirement multiplied by the ratio of the Market Participant’s Actual Energy Withdrawals, including real-time Export Schedules, other than Coordinated Transaction Schedules and Export Schedules for External Asynchronous Resources, to MISO Balancing Authority Load, including real-time Export Schedules, other than Coordinated Transaction Schedules and Export Schedules for External Asynchronous Resources.”

Based on historical data from Oct 2020 through Sept 2021, the Company’s spinning reserve requirement averaged approximately 60 MW each hour.