

BEFORE THE MINNESOTA PUBLIC UTILITIES COMMISSION

Katie J. Sieben
Valerie Means
Matthew Schuerger
Joseph K. Sullivan
John A. Tuma

Chair
Commissioner
Commissioner
Commissioner
Commissioner

In the Matter of the Petition of Northern
States Power Company for Approval of a
Plan to Offer Generating Resources into the
MISO Market on a Seasonal Basis

ISSUE DATE: July 15, 2020

DOCKET NO. E-002/M-19-809

In the Matter of the Petition of Northern
States Power Company for Approval of the
2020 Annual Fuel Forecast and Monthly Fuel
Cost Charges

DOCKET NO. E-002/AA-19-293

ORDER APPROVING PLAN AND
REQUIRING FILING

PROCEDURAL HISTORY

On December 20, 2019, Xcel Energy (Xcel or the Company) filed a petition for approval to operate its King and Sherco 2 coal-fired generating plants on a seasonal basis, with the output offered into the Midcontinent Independent Transmission System Operator (MISO) market. Prior to this filing, the Commission issued an order in a separate docket¹ directing Xcel, Minnesota Power, and Otter Tail Power Company to file annual reports analyzing potential options for dispatching certain generators during certain seasons and not others, and strategies for using “economic” commitments for specific coal-fired generating plants (November 13, 2019 Order). As part of that decision, the Commission also initiated an investigation into self-commitment and self-scheduling of large baseload facilities.²

On April 1, 2020, the Commission received comments on Xcel’s seasonal operation proposal from the Department of Commerce, Division of Energy Resources (the Department), which stated that it is not necessary for the Commission to take action on the petition. On the same day, the Commission received comments from the Clean Energy Organizations;³ the City of

¹ *In the Matter of the Review of the 2017-2018 Annual Automatic Adjustment Report for All Electric Utilities*, Docket No. E-999/AA-18-373, Order Accepting 2017-2018 Electric Reports and Setting Additional Requirements (November 13, 2019). In addition to requiring annual filing, the Commission also directed the utilities to report self-commitment and self-scheduling analyses and to share the data with stakeholders in a prescribed format.

² *In the Matter of an Investigation into Self-Commitment and Self-Scheduling of Large Baseload Generation Facilities*, Docket No. E-999/CI-19-704.

³ The Clean Energy Organizations comprise Fresh Energy; Sierra Club; and Union of Concerned Scientists.

Minneapolis; and the Center for Energy and the Environment, all of which recommended Commission approval of the petition.

Also on April 1, Xcel filed supplemental information on anticipated effects of its proposal on its workforce.

On April 16, 2020, the Commission received reply comments from the Clean Energy Organizations and Xcel reiterating support for the petition.

On May 21, 2020, the petition came before the Commission.

FINDINGS AND CONCLUSIONS

I. Xcel's Petition

Xcel's petition requests approval to transition production at two coal-fired generating plants away from an economic dispatch model to seasonal production. The purpose of the plan is to explore how to cost-effectively facilitate the Company's move from use of coal units toward a decarbonized future.

The two plants, the King generating plant (King) and the Sherburne County generating station (Sherco 2), are currently used for economic dispatch, meaning that they run between minimum and maximum output levels to meet the Company's economic commitments with MISO. Under the proposed seasonal dispatch plan, Xcel would instead offer seasonal output from the King plant beginning March 1, 2020, and from Sherco 2 beginning September 1, 2020.

Summer seasonal production would occur during June through August; winter seasonal production would occur during December through February. The remaining six months of the year are identified as shoulder months, which are generally milder. During shoulder months, both generating plants would be idled unless necessary to meet reliability needs. During seasonal months, the plants would run according to MISO's tariff rules.

In developing its proposal, Xcel analyzed the cost impacts using the same PLEXOS model and base assumptions that the Company used in developing its 2020 fuel cost forecast. According to the results of Xcel's analysis, the cost savings under either the year-round economic dispatch method or the seasonal dispatch method are significant when compared to the costs of year-round production that does not consider market conditions. And while the cost difference between the economic dispatch approach and the seasonal approach appear to be minimal, the Company emphasized that running the plants seasonally would increase operational certainty, making it more likely that the Company would achieve anticipated savings on Operations and Maintenance (O&M) costs, as well as capital costs.

The modeling also shows expected reductions in carbon dioxide (CO₂) emissions, which in turn reduces the economic impact costs of the two units. Xcel stated that modeling results show that seasonal production is likely to further reduce carbon emissions when compared to expected emissions reductions under the economic dispatch method, as shown in the table below.

Change in CO₂ Emissions of Seasonal Economic Commitment Plan Versus Year- Round Economic Commit for King and Sherco 2 (Millions of Tons)			
Base Locational Marginal Price			
2020 (0.2)	2021 (0.1)	2022 (0.1)	2023 (0.2)
High Locational Marginal Price			
2020 (0.5)	2021 (0.7)	2022 (0.3)	2023 (1.0)

The Company stated that the results of plan implementation will inform future refinements of the seasonal approach, as well as guide the Company's continuing efforts to reduce CO₂ emissions.

II. Comments of the Parties

The Department stated that the results of Xcel's modeling show that the cost differential between the proposed seasonal approach and the economic dispatch method is negligible and that either approach is a reasonable method of minimizing ratepayer costs. The Department concurred with Xcel that either approach is likely to achieve cost savings when compared to the Company's prior method of year-round production without regard to cost-effectiveness. The Department further stated that the difference in CO₂ emissions reductions between the economic dispatch and seasonal dispatch models is also minimal and that it is unnecessary for the Commission to take action to either approve or deny the proposal.

The Clean Energy Organizations, the City of Minneapolis, and the Center for Energy and the Environment all supported Xcel's proposal, citing the anticipated cost savings and CO₂ emissions reductions. In particular, they asserted that idling the two units during low market price shoulder months is likely to result in ratepayer cost savings by offsetting revenue losses through reduced O&M and capital costs. They also emphasized the anticipated reductions in CO₂ emissions and the usefulness of learning from the results of the seasonal approach.

III. Commission Action

The Commission concurs with the parties that Xcel's proposal for seasonal dispatch of King and Sherco 2 is reasonable, as underscored by the Department's analysis. As designed, the plan commits to achieving a meaningful reduction in carbon output while reducing ratepayer costs. With these goals in mind, the Commission will approve Xcel's proposed plan for seasonal deployment of the King and Sherco 2 facilities. This decision does not reach the issue of whether an adjustment to the Company's fuel clause is warranted. The Commission will separately consider any subsequent request by the Company to true-up its costs.

To facilitate future review of the plan and assessment of outcomes, the Commission will also require the Company to analyze and report annually on its findings, as agreed to by the parties, as follows:

- Xcel must provide an analysis of the impact of its unit commitment plan annually with the reporting required by the Commission’s November 13, 2019 Order in the Commission’s investigation into self-commitment and self-scheduling of large baseload generation facilities.
- Xcel must include in its reports and analysis, an analysis of hours each plant would have been committed if offered into the MISO day-ahead market under both must-commit and economic commit plans.
- Xcel must include in its reports a comparison of cost and revenue from both must commit and economic-commit to actual costs and revenues from the seasonal commitment plan and to the models presented in Xcel’s filing. This should include:
 - a. a comparison of actual fuel costs, O&M costs, and capital costs for seasonal commitment, and estimated fuel costs, O&M costs, and capital costs from must-commit and economic commitment. It should also include an analysis of emissions savings due to the plan relative to must run and economic commitment.
 - b. reporting on operations of each unit in each quarter, including offline days, starts by type (MISO economic, MISO reliability, Company must run) and duration of each start by type.
 - c. actual workforce impacts at each unit.
- Xcel must include in its reporting an analysis of marginal energy costs and marginal emissions and whether and by how much the plan changes marginal energy costs and marginal emissions for attribution of savings to energy efficiency and other distributed energy purposes.

ORDER

1. The Commission hereby approves Xcel’s proposed plan for seasonal deployment of the King and Sherco 2 facilities.
2. The Commission hereby requires Xcel to provide an analysis of the impact of its unit commitment plan annually with the reporting required by the Commission’s November 13, 2019 Order⁴ in the Commission’s investigation into self-commitment and self-scheduling of large baseload generation facilities.⁵

⁴ *In the Matter of the Review of the 2016-2017 Annual Automatic Adjustment Reports for All Electric Utilities*, Docket No. E-999/AA-17-492, and *In the Matter of the Review of the 2017-2018 Annual Automatic Adjustment Reports for All Electric Utilities*, Docket No. E-999/AA-18-373, Order Accepting 2017-2018 Electric Reports and Setting Additional Requirements (November 13, 2019).

⁵ *In the Matter of an Investigation into Self-Commitment and Self-Scheduling of Large Baseload Generation Facilities*, Docket No. E-999/CI-19-704.

3. The Commission hereby requires Xcel to include in its reports and analysis, an analysis of hours each plant would have been committed if offered into the MISO day-ahead market under both must commit and economic commit plans.
4. The Commission hereby requires Xcel to include in its reports a comparison of cost and revenue from both must commit and economic commit to actual costs and revenues from the seasonal commitment plan and to the models presented in Xcel's filing. This should include:
 - a. a comparison of actual fuel costs, O&M costs, and capital costs for seasonal commitment, and estimated fuel costs, O&M costs, and capital costs from must commit and economic commitment. It should also include an analysis of emissions savings due to the plan relative to must run and economic commitment.
 - b. reporting on operations of each unit in each quarter, including offline days, starts by type (MISO economic, MISO reliability, Company must run) and duration of each start by type
 - c. actual workforce impacts at each unit.
5. The Commission hereby requires Xcel to include in its reporting an analysis of marginal energy costs and marginal emissions and whether and by how much the plan changes marginal energy costs and marginal emissions for attribution of savings to energy efficiency and other distributed energy purposes.
6. This order shall become effective immediately.

BY ORDER OF THE COMMISSION

Will Seuffert
Executive Secretary



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