

**STATE OF MINNESOTA
PUBLIC UTILITIES COMMISSION**

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June 15, 2021

In the Matter of an Investigation into Self-Commitment and Self-Scheduling of Large Baseload Generation Facilities

Docket No. E999/CI-19-704

RESPONSE COMMENTS OF FRESH ENERGY

Fresh Energy submits these response comments per the Commission’s March 16, 2021 *Notice of Extended Comment Period* regarding the Investigation into Self-Commitment and Self-Scheduling of Large Baseload Generation Facilities. Below we respond to the initial comments and recommendations from the Minnesota Department of Commerce (“the Department”) and reply comments from the Minnesota Office of Attorney General (“OAG”), Minnesota Power (“MP”), Otter Tail Power Company (“OTP”), and Xcel Energy (“Xcel”). We appreciate the thoughtful comments and recommendations other parties have made in this proceeding.

Response to the Department of Commerce

In its April 30, 2021 *Comments*, the Department of Commerce made several recommendations for inclusion in next year’s compliance filings in this proceeding, which apply to all of the public utilities:

- Utilities should “decide on a methodology to split fuel costs in a way that such that one part depends on the MWh produced (variable costs) and the other part is independent of the MWh generated (fixed costs).”
 - Fresh Energy supports this recommendation and understands the Department’s concern with the current reporting template, which currently allocates fixed fuel costs on a per MWh basis. We are happy to work with the utilities and the Department to revise the reporting template as needed to better reflect variable and fixed costs.
- Utilities should create and report on two benchmark scenarios: a worst-case scenario of 8760 must-run and a best-case scenario of economic dispatch. “Utilities should meet to

come up with a consistent methodology to calculate the best-case scenario results based on the data being filed in this docket.”

- Fresh Energy supports this recommendation and requests that utilities discuss proposed methodologies for developing the “best case” scenario with stakeholders including Fresh Energy before presenting it to the Commission. The production cost modeling of economic dispatch that Xcel and Minnesota Power have completed also meets the goals of the “best case” scenario analysis the Department recommends. Depending on the inputs and methodology used, production cost modeling may be the more robust way to model a “best case” scenario for comparing to year-round must run.
- Utilities should include carbon dioxide emission reductions that arise as facilities move to greater economic commitment.
 - Fresh Energy supports this recommendation and believes it is important to track the emissions benefits of moving to economic commitment. We suggest that utilities report the emission impacts to the overall system, as well as unit-specific emission impacts, where possible. We offer the following modification to the Department’s recommendation to reflect this: “Each utility will include in their annual compliance filings carbon dioxide emissions for each relevant baseload unit for the reporting year, and an assessment of emission reductions achieved (at each unit and for the utility system overall) that result from moving to greater economic commitment.”
- Utilities should provide a complete list of reasons for unavoidable self-commitment of each of their plants.
 - Fresh Energy supports this recommendation and agrees with the Department’s finding that more detail and consistency is needed in reporting on the reasons for unavoidable must-run.
- Utilities should include the starting conditions for each plant (Cold, Warm and Hot) whenever a plant starts operating.
 - Fresh Energy supports this recommendation, and Otter Tail’s suggestion that the information be incorporated into the reporting template in coordination with the utilities and stakeholders.
- Utilities include the equivalent forced outage rate (EFOR) for each plant and track this over time.
 - Fresh Energy supports this recommendation.
- Utilities should describe the changes to their operating procedures and physical modifications to their units to ensure these plants are becoming more flexible to meet the upcoming challenges.
 - Fresh Energy supports this recommendation.

The Department also made several recommendations for specific utilities to address in reply comments and/or in next year’s compliance filings. Fresh Energy responds to several of the

recommendations here, focusing on those that are relevant to our analysis and initial comments.

Otter Tail:

- The Department recommended that “Otter Tail discuss their ability to renegotiate their fuel contract for the Coyote plant...in next year’s filing.”¹
 - Fresh Energy concurs with the Department’s concern about the existing fuel contract at Coyote and made a similar recommendation in our initial comments that OTP engage with stakeholders to discuss how to complete an analysis of early termination of the contract. Given OTP’s assertion that they are unable to unilaterally renegotiate the contract,² we believe an evaluation of early termination options and optimal timeline would be more effective for informing decisions about Coyote Station. This issue & recommendation is discussed further below.

Response to Minnesota Power

In its June 1, 2021 *Reply Comments*, MP provided more information about the May 2020 economic dispatch trial of Boswell 3 and responded to Fresh Energy’s requests for more information about grid reliability services that are impacted by economic operations at Boswell and a study to quantify the specific grid strength needs of MP’s system.

Regarding a study to quantify grid strength needs, MP clarified that, “Minnesota Power has already commissioned a consultant to provide a detailed assessment of the system strength presently provided to the transmission system by the Boswell units, identify areas of particular concern with the Boswell units offline, develop planning and operating criteria that may be used to maintain a minimum level of system strength for Minnesota Power’s system, and recommend long-term mitigations for ensuring that adequate system strength is available on Minnesota Power’s system under a variety of operating conditions, including normal conditions, during routine outages, and for unexpected contingencies caused by forced outages on the transmission system and/or at a generator.”³

Fresh Energy is glad to hear that this study is underway. We recommend that MP make a compliance filing to provide more information to the Commission and stakeholders about the study within 10 days of the Order in this matter (if not before), including a) the RFP or solicitation used to select a consultant and b) the scope of work of this study. We additionally recommend that the Commission request MP file the system strength study in this docket when completed.

¹ Department of Commerce, [Initial Comments](#), April 30, 2021 Docket E999/CI-19-704, p. 15

² Otter Tail Power, [Reply Comments](#), June 1, 2021, Docket E999/CI-19-704, p. 15

³ Minnesota Power, [Reply Comments](#), June 1, 2021, Docket E999/CI-19-704, p. 5

Regarding Fresh Energy's concern that some of the reliability issues MP raises are not well-defined and differentiated, we agree that the information provided in response to our Information Request 24, in addition to IRP Appendix F, provided sufficient information for the purposes of this comment period. There may be additional information that the Commission and other stakeholders will need in future stages of this proceeding, such as a clear understanding of the scale of each reliability challenge under economic dispatch versus unit retirement and the costs of potential solutions. We are continuing to evaluate the information MP has provided to-date and will work with MP to ensure that the record in this docket contains the appropriate information for stakeholders and the Commission to evaluate reliability needs, barriers, and investments related to moving the Boswell units to economic operations.

Response to Xcel Energy

In its June 1, 2021 *Reply Comments*, Xcel provided more information about the steam contract with Liberty Paper, Inc. (LPI) and how it may impact economic operations at the Sherco plant. Xcel also clarified that unavoidable self-commitment hours labeled "steam contract" currently include hours when steam is needed to provide building heat in addition to hours when self-commitment is used to meet the LPI steam contract. We appreciate that Xcel will better differentiate between these two reasons for must-run going forward.

The auxiliary boiler project at Sherco appears to be a key element of Xcel's plan to retire and/or shift these units to economic operations over the next several years. We reiterate our recommendation from initial comments that Xcel make brief compliance filings in this docket to update the Commission and stakeholders when milestones in the project are reached, including completion of auxiliary boiler construction at the Sherco site; approval, denial, or delay of the Air Emission Permit Amendment; decisions made by Xcel and/or LPI relating to the source(s) of steam used by LPI; and updates to the feasibility and use of economic commitment at Sherco I.

Response to Otter Tail Power

In its June 1, 2021 *Reply Comments*, OTP stated that Coyote Station was moved to economic commitment in April, 2021 and the plant was economically decommitted for the first time on May 1. This is good news for OTP customers and Fresh Energy commends OTP and its co-owners for making the transition to economic operations at Coyote a year earlier than previously planned.

OTP responded to two concerns Fresh Energy raised in initial comments related to Order Points 4 and 6 from the Commission's January 11, 2021 *Order Evaluating Self Commitment and Self Scheduling Reports and Establishing Additional Filing Requirements*. Fresh Energy agrees with

OTP that Order Point 4 does not necessarily require a forward-looking analysis, but as other utilities have demonstrated, production cost modeling is a feasible way to achieve a “complete analysis of the costs and benefits of economic or seasonal dispatch relative to self-scheduling”⁴ either for prior years (using actual market prices) or for future years (using forecasts). Given that there are some complicating factors with production cost modeling OTP’s plants, and that this analysis may overlap with the “best case” scenario modeling suggested by the Department, Fresh Energy continues to recommend that OTP (along with the other utilities) engage with stakeholders in this docket to discuss modeling methodologies for establishing a “best case” economic operations scenario for each plant.

OTP also responded to Fresh Energy’s concern with the completion of an analysis comparing the operational costs incurred by Coyote Station to the potential costs of changing or exiting its fuel contract (lignite sales agreement or LSA). Fresh Energy interprets Order Point 6 to direct OTP to quantify the costs of modifying the LSA, or in the case of an inability to modify – the costs of early termination. This data was not included in OTP’s annual filing, but OTP developed an estimated contract buy-out cost per year between now and 2040 in response to Sierra Club information request 67.⁵ OTP states in *Reply Comments* that it believes the IRP to be the appropriate process for evaluating continued operations at Coyote station (including the ownership agreement and LSA) and that it will be providing a comprehensive analysis of the costs and benefits of continued operations at Coyote in the upcoming IRP.⁶ Fresh Energy can support this direction, and accordingly recommends that OTP include in its September 1, 2021 IRP filing a discussion of the costs of early termination of the LSA, including the estimated contract buy-out cost for each year of the planning period.

Response to the Office of Attorney General

The Office of Attorney General, Residential Utilities Division provided reply comments focusing on the operation of OTP’s Big Stone Plant and Coyote Station. The OAG highlighted concerns with Coyote Station’s production costs and operational losses over the past five years, the high proportion of fixed fuel costs and the need to examine divestment from Coyote in the next integrated resource plan (“IRP”). OTP has stated that it “intends to address Coyote Station in a comprehensive manner in its soon to be filed IRP”⁷ and believes the IRP is the best place to evaluate the pros and cons of early retirement of this plant, including discussion of fuel contract treatment.⁸

⁴ Minnesota Public Utilities Commission, [Order Evaluating Self Commitment and Self Scheduling Reports and Establishing Additional Filing Requirements](#), January 11, 2021, Docket Nos. E-999/CI-19-704 and E-002/M-19-809, Order Point 4.

⁵ Sierra Club, [Initial Comments](#), April 30, 2021, Docket E999/CI-19-704, p. 26

⁶ Otter Tail Power, [Reply Comments](#), June 1, 2021, Docket E999/CI-19-704, p. 19

⁷ *Id.*, p. 21

⁸ *Id.*, p. 19

Fresh Energy agrees with the OAG's recommendation that OTP "include in its September 1, 2021 IRP filing a scenario in which the Company divests its ownership interest in Coyote Station by the end of the 2022–2023 MISO planning year."⁹ Including such a scenario in the modeling OTP performs for the IRP this fall will provide the information needed for OTP, stakeholders and the Commission to complete a robust evaluation of future resource portfolios for Otter Tail's customers.

Conclusion and Recommendations

Fresh Energy appreciates the Commission's ongoing interest in the issue of self-commitment and self-scheduling. Over the past 2.5 years, the investigation and work by utilities in response to it has resulted in significant cost savings for electric customers and carbon reductions that benefit all Minnesotans. Thank you for the opportunity to provide comments on this most recent round of the proceeding, and for your consideration of our recommendations, listed below.

1. Direct MP, OTP, and Xcel to develop a methodology for splitting fuel costs in a way that such that one part depends on the MWh produced (variable costs) and the other part is independent of the MWh generated (fixed costs), and update the annual reporting template accordingly.
2. Direct MP, OTP, and Xcel to develop two benchmark scenarios, as recommended by the Department, and to engage with stakeholders in this docket to discuss modeling methodologies for establishing the "best case" economic operations scenario for each unit.
3. Direct MP, OTP, and Xcel to include in their annual compliance filings carbon dioxide emissions for each relevant baseload unit for the reporting year, and an assessment of emission reductions achieved (at each unit and for the utility system overall) that result from moving to greater economic commitment.
4. Direct MP, OTP, and Xcel to provide a complete list of reasons for unavoidable self-commitment of each of their plants.
5. Direct MP, OTP, and Xcel to include in the annual reporting template the starting conditions for each plant (Cold, Warm and Hot) whenever a plant starts operating.
6. Direct MP, OTP, and Xcel to include the equivalent forced outage rate (EFOR) for each unit in future annual reports in this docket and track this over time.

⁹ Office of Attorney General, [Reply Comments](#), June 1, 2021, Docket E999/CI-19-704, p. 7

7. Direct MP, OTP, and Xcel to describe the changes to their operating procedures and physical modifications to their units to ensure these plants are becoming more flexible to meet the upcoming challenges.
8. Direct Minnesota Power to make a compliance filing within 10 days of the Order in this matter (if not before) to provide more information about the system strength study Minnesota Power has commissioned a consultant to complete. The filing will include, at minimum, the RFP or solicitation used to select a consultant and the scope of work of this study.
9. Direct Minnesota Power to file the system strength study in this docket when completed.
10. Direct Xcel to make brief compliance filings in this docket to update the Commission and stakeholders when milestones in the Sherco auxiliary boiler project are reached, including completion of boiler construction; approval, denial, or delay of the Air Emission Permit Amendment; decisions made by Xcel and/or LPI relating to the source(s) of steam used by LPI; and updates to the feasibility and use of economic commitment at Sherco 1.
11. Direct OTP to include in its September 1, 2021 IRP filing a scenario in which the Company divests its ownership interest in Coyote Station by the end of the 2022–2023 MISO planning year.
12. Direct OTP to include in its September 1, 2021 IRP filing a discussion of the costs of early termination of the lignite sales agreement (LSA) serving Coyote Station, including the estimated contract buy-out cost for each year of the planning period.

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