

August 15, 2023

Will Seuffert
Executive Secretary
Minnesota Public Utilities Commission
121 7th Place East, Suite 350
Saint Paul, Minnesota 55101-2147

RE: **Comments of the Minnesota Commerce Department, Division of Energy Resources**
Docket No. E999/CI-19-704

Dear Mr. Seuffert:

Attached are the Comments of the Minnesota Commerce Department, Division of Energy Resources (Department), in the following matter:

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

The Department recommends that the Minnesota Public Utilities Commission (Commission) **take certain actions on a going forward basis**. The Department is available to answer any questions that the Commission may have in this matter.

Sincerely,

/s/ ADWAY DE, PH.D.
Public Utilities Rates Analyst

AD/ad
Attachment



Before the Minnesota Public Utilities Commission

Comments of the Minnesota Department of Commerce Division of Energy Resources

Docket No. E999/CI-19-704

I. INTRODUCTION

A. PROCEDURAL HISTORY

On November 13, 2019, the Minnesota Public Utilities Commission (Commission) issued its *Order Accepting 2017-2018 Electric Reports and Setting Additional Requirements* (2019 Order) in Docket No. E999/AA-18-373. In the 2019 Order the Commission included the following Order Points:

8. Minnesota Power, Otter Tail, and Xcel shall submit an annual compliance filing analyzing the potential options for seasonal dispatch generally, and potential options and strategies for utilizing “Economic” commitments for specific coal-fired generating plants. The utilities shall include a specific explanation of barriers or limitations to each of these potential options, including but not limited to technical limits of the units and contract requirements (shared ownership, steam offtake contracts, minimum fuel supply requirements, [sic] (shared ownership, steam offtake contracts, minimum fuel supply requirements, etc.) as relevant, on March 1, 2020, and each year thereafter.
9. The Commission will open an investigation in a separate docket and require Minnesota Power, Otter Tail, and Xcel to report their future self-commitment and self-scheduling analyses using a consistent methodology by including fuel cost and variable O&M costs, matching the offer curve submitted to MISO [Midcontinent Independent System Operator, Inc.] energy markets.
10. In the investigation docket, Minnesota Power, Otter Tail, and Xcel shall provide stakeholders with the underlying data (work papers) used to complete their analyses, in a live Excel spread sheet, including, at a minimum, the data points listed below for each generating unit, with the understanding that this may include protected data.

On November 17, 2022, the Commission issued its Order approving the March 1, 2022 filings by Northern States Power Company doing business as Xcel Energy (Xcel), Minnesota Power, an operating division of ALLETE, Inc. (Minnesota Power or MP) and Otter Tail Power Company (Otter Tail or OTP) covering January 1, 2021 to December 31, 2021. The Commission also included the following additional order points:

2. Required Xcel to provide, in future reports, instances when greater economic commitment led to lost revenue. If there were such instances, the utility should describe its strategy to weigh those lost revenues with the environmental benefits of lower emissions.
5. Required Otter Tail to include Midcontinent Independent System Operator, Inc. (MISO) and Southwest Power Pool (SPP) market conditions in determining its self-commitment endorsement and show Net Benefit results in addition to the analysis provided by Otter Tail in Tables 6 and 8 of its 2021 filing.
6. Required that Otter Tail include in its 2023 and 2024 annual reports an update on its progress toward implementing the Total Plant Offer Optimization Plan and Combined Modeling of MISO Co-Owner Generation Shares Plan at Big Stone Plant and Coyote Station.
7. Required that utilities provide the following in future reports:
 - a. Avoided carbon dioxide emissions due to economic commitment along with plant level carbon dioxide emissions in subsequent filings, using the Department's recommended method.
 - b. Equivalent Forced Outage Rate (EFOR) information to be tracked over time.
 - c. Energy (MWh) produced and curtailed from utility owned and contracted wind facilities monthly for each facility in subsequent filings in this docket.

On March 1, 2023, Xcel, Otter Tail and Minnesota Power filed their fourth Annual Compliance filing covering January 1, 2022 to December 31, 2022. Xcel's report provided data regarding Allen S. King Generating Station (King), Monticello Nuclear Generating Station (Monticello), Prairie Island Nuclear Generating Station (Prairie Island) units 1 and 2; and Sherburne County Generating Station (Sherco) units 1, 2, and 3.¹ Minnesota Power's report provided data regarding Boswell Energy Center (Boswell) units 3 and 4.² Otter Tail's report provided data regarding the Big Stone Plant (Big Stone) and Coyote Station (Coyote).³

¹ Regarding Sherco unit 3, Southern Minnesota Municipal Power Agency (SMMPA) owns 41 percent and Xcel owns the remainder. SMMPA serves 18 municipal electric utilities in Minnesota.

² Regarding Boswell unit 4, WPPI Energy owns 20 percent and Minnesota Power owns the remainder. WPPI Energy serves 51 cooperative and municipal electric utilities.

³ Note that NorthWestern Energy provides electric and/or natural gas services to 349 cities in the western two-thirds of Montana, eastern South Dakota and central Nebraska. Montana-Dakota Utilities is a subsidiary of MDU Resources Group, Inc., a company providing retail natural gas and/or electric service to parts of Montana, North Dakota, South Dakota and Wyoming. Minnkota Power Cooperative serves as operating agent for the Northern Municipal Power Agency; Northern Municipal Power Agency actually owns the share of Coyote and serves 12 municipal electric utilities in eastern North Dakota and northwestern Minnesota.

Table 1 below shows the ownership arrangements for Big Stone and Coyote.

Table 1. OTP Unit Ownership Arrangements

Utility	Big Stone Ownership Share	Coyote Ownership Share	ISO Membership
Otter Tail Power Company	53.9%	35.0%	MISO
Montana Dakota Utilities	22.7%	25.0%	MISO
NorthWestern Energy	23.4%	10.0%	SPP
Minnkota Power Cooperative	0.0%	30.0%	MISO

On April 25, 2023, the Commission issued its Notice of Extended Comment Period which laid out the timeline for initial comments (May 31, 2023), reply comments (June 30, 2023) and response comments (July 17, 2023).

On May 31, 2023, comments were filed by Minnesota Department of Commerce, Division of Energy Resources (Department).

On June 20, 2023, the Commission issued its Notice of Extended Comment Period and Additional Reporting which laid out the timeline for reply comments (July 31, 2023) and response comments (August 15, 2023).

On June 30, 2023, reply comments were filed by Xcel Energy (Xcel).

On July 31, 2023, reply comments were filed by Minnesota Power (MP), Otter Tail Power Company (OTP), Fresh Energy and Sierra Club.

Below are the Department's response comments to the utilities' reply comments and issues relating to additional reporting raised in the Commission's June 20, 2023 Notice.

II. DEPARTMENT ANALYSIS

Below, the Department summarizes the utilities' reply comments, and then provides its recommendations.

A. MINNESOTA POWER REPLY

First, regarding best- and worst-case scenario for Boswell 3 and Boswell 4, MP explained that there were some internal modeling inconsistencies that took time for MP to resolve prior to providing the requested data. MP appreciated the Department's patience and request that they provide the analysis in reply comments. The worst-case scenario for Boswell 3 and 4 was set to must run all year round and the best-case scenario involved setting the units to an economic dispatch year-round. According to MP's analysis, based on current forecasts of market prices for 2022, the best- and worst-case outcomes are not significantly different. The Department found this analysis useful and shows that during 2022, the policy

to transition coal plants to greater economic dispatch can generate minimal additional benefits for ratepayers.

Second, regarding the increase in curtailment of its renewable resources reported by MP in 2022 in this docket (Self-Commitment Filings) compared to 2021 filings in the annual fuel adjustment clause true-up filings (“FAC True-up Filings”), MP explained that the difference was largely due to changes in reporting convention. Reporting in the FAC True-up Filings includes only curtailments related to the alternating current (AC) transmission system, while the Self-Commitment Filings include all curtailments (AC, Locational Marginal Price (LMP) and Environmental). Since these different types of filings require reporting of curtailments with different definitions, the 2021 curtailments in the FAC True-up Filing are not directly comparable to the 2022 curtailments now reported in the Self-Commitment filing. The more expansive definition of curtailments included in the Self-Commitment Filings is the reason for the increase in curtailments from 2021 to 2022. The Department appreciates this clarification and notes that subsequent comparisons on the basis of this more expansive definition would be helpful in the current docket to track any potential renewable impact.

B. OTTER TAIL REPLY

First, regarding OTP’s ability to reduce must run commitment during periods when there is no co-owner requests, OTP explained that the issue pertains to the current methodology of recording reasons for unavoidable self-commitment. While OTP left the reason for unavoidable self-commitment blank in several hours in the reporting template during 2022, OTP stated that majority of those hours were on must run due to co-owner request or need for building heat. The Department appreciates OTP’s willingness to provide reasons for unavoidable self-commitment during all relevant hours in future filings.

Second, regarding the issue of divergence in co-owner incentives, Otter Tail explained that wholesale market pricing differences across MISO and SPP are the primary reason for divergent co-owner decisions. Co-owners develop their commitment strategies to optimize their financial performance for their individual shares. Since market revenues are not shared, it is sensible that this would lead to co-owners making different decisions. The Department appreciates Otter Tail’s response and its effort to increase the time when the units are committed and dispatched based on MISO market signals.

Third, OTP explained why the actual net benefits for both its units are outside the best- and worst-case scenarios. OTP explained that the result is due to modeling assumptions and simplifications. OTP listed 8 simplifying assumptions that it made that could be driving the result. The Department agrees that modeling outcomes need to include assumptions and can’t address every aspect of reality. However, a balance needs to be struck between the use of simplifying assumptions and accuracy. The Department encourages OTP to improve its modeling to ensure best- and worst-case scenarios provide highest/lowest possible benchmarks for comparison.

Fourth, regarding the increase in curtailment of its wind resources, OTP stated the reasons are either low LMP prices or the need to maintain system reliability. OTP acknowledged that Self-commitment of thermal resources may in some cases increase the supply of low-cost, wholesale energy on the electrical grid, which could contribute to curtailment of wind facilities. However, OTP does not have the ability to estimate the contribution of its must run units to additional wind curtailment. The Department agrees that self-commitment is one of several causes of curtailment of wind resources. A more comprehensive analysis of the issue might be warranted to successfully disentangle the problem and identify the extent to which each cause contributes to this problem.

C. XCEL REPLY

First, regarding relatively high equivalent forced outage rates (EFOR), Xcel explained that their units were not operating at a high capacity factor due to lower gas and market prices. Sherco Unit 2 is retiring at the end of 2023 and as it nears retirement, capital and O&M spending is reduced. Xcel explained that several factors forced Sherco Unit 3 offline in 2022. The unit has just completed an extensive overhaul and is expected to return to previous year EFOR numbers. In 2022, King Plant was removed from Seasonal Idle due to the 2022/2023 MISO Planning Resource Auction (PRA). That Unit experienced more startups and shutdowns than expected. The Department appreciates Xcel's explanation for high EFOR numbers for its units.

Second, regarding best- and worst-case scenario, Xcel talked about the current modeling they performed using the PLEXOS model and how it differs from actual dispatch at MISO. Xcel stated that they are already making changes to PLEXOS and their processes to handle some of those differences. For example, to account for derates and dispatches to economic max, Xcel is importing the hourly day ahead offered economic max into the PLEXOS model to cap the model's maximum dispatch limit to resemble day ahead award limits. To address cost adders at different break points, Xcel Energy has also found a way to adjust unit variable O&M in the model so that the model can solve with these costs. The Department appreciates Xcel's efforts to improving its modeling and looks forward to more realistic estimates of best and worst case scenarios in subsequent compliance filings.

Third, regarding the increase in curtailment of its wind resources, Xcel explained that the that the transmission system in the Upper Midwest has become oversubscribed and cannot support all the wind generation that has recently gone into service. Factors impacting 2022 curtailment were wind generation going into service prior to the completion of transmission upgrades required for the generation to interconnect, along with a number of transmission outages. In other words, there was more wind generation installed in the western subregion of MISO than could be delivered to meet customer demand throughout the MISO footprint. Xcel noted that as part of moving towards a carbon-free generation fleet by 2040, they are working on increasing operational flexibility so that they can ramp down our plants during periods of high transmission congestion and low prices, such as times when abundant renewable resources are available on the system. The Department appreciates Xcel's efforts at

increasing operational flexibility of its units and is going to continue monitoring wind curtailment in the region.

D. ADDITIONAL ANNUAL REPORTING RECOMMENDATIONS

The Commission's June 20, 2023 Notice requested comments from parties on whether the filing requirements in this docket should be amended in response to the changes to Minnesota Statute Section 216B.2422 in the 2023 Legislative Session that addressed carbon dioxide (CO₂) emissions reduction and monthly/annual limits on operation of coal-fired generating units.

MP explained that it does not currently incorporate seasonal or monthly shutdowns in the operation of its coal-fired units and thus there is no need to amend its filing requirements in this docket to reflect seasonal shutdowns of coal-fired units. MP added that consideration of whether or how the Commission should implement this new statutory authority with respect to Boswell 3 and 4 is more appropriately addressed in MP's future resource plan.

OTP explained that since the current statutory change that address CO₂ emissions reduction at coal-fired electric generating units located in Minnesota, neither Big Stone or Coyote are subject to it. OTP also stated that other statutory changes that took place during the 2023 Legislative session appear to be covered by other dockets before the Commission and would not require changes to the reporting obligations established in this docket.

Xcel explained that they ceased seasonal operations at King and Sherco 2 in the Spring of 2022 and began offering the units on an economic basis. The change was the result of two developments. First, the Independent Market Monitor (IMM) raised new concerns surrounding Xcel's plans to idle the units in March 2022. Second, all of Xcel's offered units, including Sherco 2 and King, cleared in the 2022/2023 MISO Planning Resource Auction (PRA). The results of the 2023/2024 MISO PRA were released in May 2023. Sherco 2 and King did not clear the PRA auction for the summer, fall or spring seasons⁴, which may provide some additional ability to idle the units. Currently, Xcel's coal units are being committed on a limited basis due to the low gas commodity and market energy prices⁵. Therefore, a change to seasonal operation at either Sherco 2 or King would have a significant impact on operations in the near-term. Moreover, Sherco 2 is scheduled to retire at the end of 2023.

Overall, the Department supports Xcel's or any other utility's efforts to reduce costs and carbon emissions. Yet, as evidenced by filings in Docket No. E002/M-19-809, utilities already have the ability to offer their coal fired generation facilities under flexible operating conditions including seasonal dispatch. Such decisions have the potential to reduce energy costs and carbon emissions simultaneously. Moreover, utilities are already required to operate its system efficiently. Thus, there is no need for the Commission to advise the utilities on how to operate their system. Further, doing so may cause undue

⁴ Sherco 2 was not offered for winter or spring due to its scheduled retirement at the end of 2023.

⁵ Sherco 3 has been offered as must run at the request of SMMPA.

confusion and complexities under differing jurisdictions. MISO is subject to the jurisdiction of the Federal Energy Regulatory Commission (FERC) and must abide by FERC's various regulations. Utilities, as participants in the MISO energy market, must abide by MISO's rules that are subject to FERC's jurisdiction. Given that the utilities are fully aware of their federal, state and local regulatory requirements and are capable of and compensated for meeting them, the Department recommends that the Commission avoid adding further complexity in directing utility's operations.

III. CONCLUSION AND RECOMMENDATION

The Department offers the following revised recommendations.

A. RECOMMENDATIONS FOR COMPLIANCE FILING

Based on the reply comments from the utilities, the Department concludes that there is no need for additional compliance filing in the instant docket for 2022.

B. RECOMMENDATIONS FOR NEXT YEAR'S FILING

The Department recommends the Commission keep all existing reporting requirements unchanged for next year.

CERTIFICATE OF SERVICE

I, Sharon Ferguson, hereby certify that I have this day, served copies of the following document on the attached list of persons by electronic filing, certified mail, e-mail, or by depositing a true and correct copy thereof properly enveloped with postage paid in the United States Mail at St. Paul, Minnesota.

Minnesota Department of Commerce
Comments

Docket No. E999/CI-19-704

Dated this **15th** day of **August 2023**

/s/Sharon Ferguson

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Alison C	Archer	aarcher@misoenergy.org	MISO	2985 Ames Crossing Rd Eagan, MN 55121	Electronic Service	No	OFF_SL_19-704_Official
Generic Notice	Commerce Attorneys	commerce.attorneys@ag.state.mn.us	Office of the Attorney General-DOC	445 Minnesota Street Suite 1400 St. Paul, MN 55101	Electronic Service	Yes	OFF_SL_19-704_Official
Hillary	Creurer	hcreurer@mnpower.com	Minnesota Power	30 W Superior St Duluth, MN 55802	Electronic Service	No	OFF_SL_19-704_Official
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Allen	Gleckner	gleckner@fresh-energy.org	Fresh Energy	408 St. Peter Street Ste 350 Saint Paul, Minnesota 55102	Electronic Service	Yes	OFF_SL_19-704_Official
Kim	Havey	kim.havey@minneapolismn.gov	City of Minneapolis	350 South 5th Street, Suite 315M Minneapolis, MN 55415	Electronic Service	No	OFF_SL_19-704_Official
Adam	Heinen	aheinen@dakotaelectric.com	Dakota Electric Association	4300 220th St W Farmington, MN 55024	Electronic Service	No	OFF_SL_19-704_Official
Kristin	Henry	kristin.henry@sierraclub.org	Sierra Club	2101 Webster St Ste 1300 Oakland, CA 94612	Electronic Service	No	OFF_SL_19-704_Official
Holly	Lahd	holly.lahd@target.com	Target Corporation	33 South 6th St CC-28662 Minneapolis, MN 55402	Electronic Service	No	OFF_SL_19-704_Official

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Leann	Oehlerking Boes	lboes@mnpower.com	Minnesota Power	30 W Superior St Duluth, MN 55802	Electronic Service	No	OFF_SL_19-704_Official
Generic Notice	Residential Utilities Division	residential.utilities@ag.state.mn.us	Office of the Attorney General-RUD	1400 BRM Tower 445 Minnesota St St. Paul, MN 551012131	Electronic Service	Yes	OFF_SL_19-704_Official
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