COMMERCE DEPARTMENT

PUBLIC DOCUMENT

June 29, 2023

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

RE: **PUBLIC Comments of the Minnesota Department of Commerce, Division of Energy Resources**
Docket No. E002/AA-23-153

Dear Mr. Seuffert:

Attached are the **PUBLIC** comments of the Minnesota Department of Commerce, Division of Energy Resources (Department) regarding the March 1, 2023 petition by Northern States Power Company, doing business as Xcel Energy (Xcel) in Docket No. E002/AA-23-153, requesting approval of its 2024 monthly fuel clause adjustment rates and associated forecasts. Lisa R. Peterson, Xcel's Director of Regulatory Pricing and Analysis, filed the petition.

The Department requests additional information from Xcel. The Department will provide final recommendations to the Minnesota Public Utilities Commission (Commission) after reviewing Xcel's reply comments providing the additional information and Xcel's updated forecast. The Department is available to answer any questions the Commission may have in this matter.

Sincerely,

/s/ STEPHEN COLLINS
Financial Analyst

SC/ja
Attachment

Before the Minnesota Public Utilities Commission

PUBLIC Comments of the Minnesota Department of Commerce Division of Energy Resources

Docket No. E002/AA-23-153

I. SUMMARY OF PETITION

On May 1, 2023, Northern States Power Company d/b/a Xcel Energy (Xcel or the Company) filed a petition with its 2024 fuel forecast and proposed 2024 monthly fuel charges, to comply with the requirements of the Minnesota Public Utilities Commission's (Commission) Orders[1] in Docket No. E999/CI-03-802.[2] Based on its forecasted revenue requirements and sales, Xcel requests approval of monthly fuel charges in 2024 subject to true-up, as shown in Xcel's Tables 1 and 2 as well as Part A, Attachments 1 and 5 of the petition. Xcel's proposed rates reflect proposed recovery of $1.030 billion in total 2024 forecasted net fuel costs which equates to $38.38/MWh on average.

Xcel proposes to implement the monthly rate changes on the first day of each month for the 12 months beginning January 1, 2024. To provide customers 30 days' notice of the January 1, 2024 rate, Xcel requests that an Order be issued in this docket by November 30, 2023 as established in Appendix A of the June 12, 2019 Order in Docket No. E999/CI-03-802. Xcel's notice will consist of updating its rider webpage (https://www.xcelenergy.com/company/rates_and_regulations/rates/rate_riders) with the full year of monthly fuel cost charges by December 1, 2023, or upon approval by the Commission if approval is not received prior to December 1. In addition, Xcel will update the FCA tariff sheet to reflect the actual monthly fuel cost charges to be implemented based on the Commission's decisions in this proceeding and will provide an updated final tariff sheet in a compliance filing within 10 days after the Order is received.

The Minnesota Department of Commerce, Division of Energy Resources (Department) reviews Xcel's petition below, prefaced with some background information.

II. BACKGROUND

A. FUEL CLAUSE STATUTE

Minn. Stat. § 216B.16, subd. 7, the Fuel Clause Statute, authorizes the Commission to allow a public utility to automatically adjust charges for the cost of certain fuel, energy, and wholesale costs, referred to generally as "fuel." Specifically, the Fuel Clause Statute states:

[1] December 19, 2017, December 12, 2018, and June 12, 2019. The Department reviews these orders in the background section of these comments.

[2] Order Point 2 requires Xcel to provide to identify the number and MWhs of planned outages that were originally classified as unplanned.

> Notwithstanding any other provision of this chapter, the commission may permit a public utility to file rate schedules containing provisions for the automatic adjustment of charges for public utility service in direct relation to changes in:
>
> (1) federally regulated wholesale rates for energy delivered through interstate facilities;
> (2) direct costs for natural gas delivered;
> (3) costs for fuel used in generation of electricity or the manufacture of gas; or
> (4) prudent costs incurred by a public utility for sorbents, reagents, or chemicals used to control emissions from an electric generation facility, provided that these costs are not recovered elsewhere in rates. The utility must track and report annually the volumes and costs of sorbents, reagents, or chemicals using separate accounts by generating plant.

B. FUEL CLAUSE REFORM – DOCKET NO. E999/CI-03-802

Electric utilities in Minnesota follow an annual process to adjust their FCA rates. However, prior to 2020, utilities would adjust their FCA rates monthly to reflect, on a per-kWh (kilowatt-hour) basis, deviations from the base cost of energy established in the utility's most recent general rate case; and file monthly and annual reports to be reviewed for accuracy and prudence. The Department provides an overview of the move to an annual process below.

1. Investigation Begins

In 2003, the Commission initiated an investigation in Docket No. E999/CI-03-802, the Fuel Clause Investigation Docket, to explore possible changes to the FCA. The Commission invited stakeholders to comment on the FCA's purpose, structure, rationale, and relevance.

2. December 19, 2017 Order

On December 19, 2017, Commission issued an order in the Fuel Clause Investigation Docket, requiring utilities to move towards an annual fuel clause adjustment process with the following requirements.

- The Commission will set recovery of the utility's fuel, power purchase agreements, and other related costs (fuel rates) in a rate case or an annual fuel clause adjustment filing unless a utility can show a significant unforeseen impact.
- Each electric utility will publish the monthly fuel rates in advance of each year to give customers notice of the next year's monthly electric fuel rates.
- The monthly fuel clause adjustment will not operate – each electric utility will charge an approved monthly rate.
- Utilities will be allowed to track any changes in $/MWh (megawatt-hour) fuel costs that occur over the year and there will be no carrying charge on the tracker.

- Annually, each electric utility will report actual $/MWh fuel costs in each month by fuel type (including identification of costs from specific power purchase agreements) and compare the annual revenue based on the fuel rates set by the Commission with annual revenues based on actual costs for the year.
- **Each electric utility will refund any over-collections and show prudence of costs before allowing recovery of under-collections.** If annual revenues collected ($/MWh) are higher than total actual costs, the utility must refund the over-collection through a true-up mechanism. If annual revenues collected are lower than total actual costs), the utility must show why it is reasonable to charge the higher costs (under-collections) to ratepayers through a true-up mechanism.
- Each utility must file proposed fuel rates outside of a general rate case. If the proposed fuel rates are different from the rates set in a utility's most recent miscellaneous rate docket that coincides with a rate case, the utility must fully explain the basis for any difference. These filings should include complete documentation supporting the proposed fuel rates, including each power purchase agreement (PPA), estimates of costs for each type of fuel, and the proportion of each type of fuel, along with a complete description of any model used to develop the proposed $/MWh fuel rates, including but not limited to the identification and justification of the inputs and formulas used for all fuel types, and fully documented sales forecasts.

3. December 12, 2018 Order

On December 12, 2018, the Commission issued another order in the Fuel Clause Investigation Docket, modifying certain aspects of and adding to the FCA reform approved in the December 19, 2017 order. In particular, the December 12, 2018 order disposed as follows:

- The implementation date for the new fuel clause adjustment process is January 1, 2020.
- Beginning January 1, 2020, until the end of the pilot or as otherwise ordered, the FCA process shall follow the calendar year, and the annual fuel clause adjustment true-up compliance filings shall be filed by March 1 of the year following the relevant calendar year.
- Monthly automatic adjustment filings shall be discontinued once the new fuel clause adjustment process is implemented.
- Each utility shall file its annual fuel clause adjustment report in a separate docket.
- All changes approved in this docket shall remain in effect indefinitely.

4. June 12, 2019 Order

On June 12, 2019 the Commission issued its final main order in the Fuel Clause Investigation docket, providing additional details to finalize FCA reform. Specifically, the June 12, 2019 order approved, among other things:

- Variances to Minnesota Rules 7825.2800 through 7825.2840 to accommodate the new FCA process by modifying the filing deadlines contained in these rules.

- A threshold of plus or minus 5% of all FCA costs and revenues to determine whether an event qualifies as a significant, unforeseen impact that may justify an adjustment to the approved fuel rates. Utilities are permitted to implement revised rates following a 30-day notice period, subject to a full refund, if no party objects to the revised rates.
- Tracking under- or over-recovered FCA costs as regulatory assets or liabilities, respectively, using FERC Account 182.3.
- Information requirements for the annual forecast and true-up filings for all electric utilities, including the reporting requirement changes outlined in Attachments 1, 2, and 3 of the March 1, 2019 joint comments[3] in Docket No. E999/CI-03-802 and the requirement that the annual true-up filings include a complete analysis and discussion of the consequences of self-commitment and self-scheduling of their generators, including the annual difference between production costs and corresponding prevailing market prices.
- Tariff changes reflected in Attachments 4, 5, and 6 of the March 1, 2019 joint comments[4] in Docket No. E999/CI-03-802.
- Discontinuation of Xcel's reporting of Part H, Section 4 narrative and Schedule 1 (transformers); Part I (MISO[5] Day 1); Part J, Section 5, Schedules 1, 3-6 (MISO Day 2); Part K, Section 5, Schedule 3 (transformer maintenance); Part K, Section 4, Schedule 3 (designated resource planning for MISO).
- A procedural schedule, as shown in Appendix A of the order.

5. Procedural Schedule

The Appendix A procedural schedule for the forecasted rates relating to this petition is below.

2023 May 2	Utilities submit 2024 forecast and rates
2023 June 30	Review & initial comments by consumer advocates of 2024 rates
2023 July 30	Utility reply comments on 2024 rates (forecast inputs updated)
2023 Aug. 30	Response by consumer advocates for 2024 rates
2023 Nov. 30	Commission's order on 2024 rates
2023 Dec. 1	Publication of 2024 rates
2024 Jan. 1	Implement 2024 rates

The 2024 FCA rates will then be trued up to actuals under the following schedule, also from Appendix A:

2025 Mar. 1	Utilities submit 2024 true-up
2025 Apr. 15	Review and initial comments by consumer advocates of 2024 true-up
2025 May 1	Utility reply comments for 2024 true-up
2025 May 15	Response by consumer advocates for 2024 true-up

[3] In the March 1, 2019 joint comments, Attachment 3 corresponds to Xcel.
[4] In the March 1, 2019 joint comments, Attachment 6 corresponds to Xcel and reflects the Company's current FCA Rate Schedule, Section 5, Sheet Nos. 91.0 – 91.3, as approved by the Commission's June 12, 2019 Order in Docket No. E-999/CI-03-802 (Part A, Attachment 9 to the instant Petition is the proposed nineteenth revision of the Company's FCA tariff).
[5] Midcontinent Independent System Operator.

2025 Aug. 2	Commission's order for 2024 true-up
2025 Sep. 1	Implement 2024 true-up

C. XCEL ANNUAL FCA HISTORY

The Department summarizes Xcel's history under the annual (post-reform) FCA process below. The Department also provides Department Table 1 below, showing Xcel's approved forecasts and costs in each year, with a comparison to this year's 2024 forecast.

Department Table 1:
Xcel FCA Forecasted and Actual Costs: 2020-2024

Year	Docket	Forecasted Cost	Actual Cost	Forecast Unit Cost	Actual Unit Cost	Actual Recoveries	Over/(Under) Recovery
		$ millions		$/MWh		$ millions	
2020	19-293	796.1	746.3	27.81	27.07	741.3	(5.0)
2021	20-417	749.7	894.1	27.78	31.71	812.3	(81.8)
2022	21-295	849.4	950.2	31.47	33.55	954.0	3.8
2023	22-179	1,069.2 → 1,039.2	TBD	38.96 → 37.87	TBD	TBD	TBD
2024	23-153	1,030.3*	TBD	38.38*	TBD	TBD	TBD

*Instant petition (not yet approved)

1. 2020 FCA (19-293)

On May 1, 2019, Xcel filed its first forecast petition under the annual FCA process, in Docket No. E002/AA-19-293. The petition was for 2020.

On November 14, 2019, the Commission issued an order approving Xcel's 2020 forecast with modifications. The approved forecasted FCA costs for 2020 were $796.1 million or $27.81/MWh.[6]

In addition, the November 14, 2019 order required Xcel in future FCA filings to include its forecasted MISO Day 2 and Day 3 charges on separate line items instead of including them with other costs and revenues under "ST Market Purchases" and "Less Sales Revenues."

On March 1, 2021, Xcel submitted its 2020 true-up petition, requesting approval of 2020 actual FCA expenses of $746.3 million, $49.8 million lower than the approved forecast of $796.1 million. On a unit cost basis, Xcel's requested 2020 actual FCA costs were $27.07/MWh versus $27.81/MWh forecasted. Xcel collected $741.3 in FCA revenues leading to a $5.0 million under-recovery.

On June 30, 2021, the Commission issued an order approving Xcel's 2020 true-up.

[6] Xcel July 31, 2019 reply comments in Docket No. E002/AA-19-293, Part A, Attachment 1, page 1 of 4.

Xcel recovered the $5.0 million through a one-time increased FCA charge in September 2021.[7]

2. 2021 FCA (20-417)

On May 1, 2020, Xcel filed its 2021 forecast petition, in Docket No. E002/AA-20-417.

On December 22, 2020 the Commission issued an order approving Xcel's 2021 forecast. The approved forecasted FCA costs for 2021 were $749.7 million or $27.78/MWh.[8]

In addition, the December 22, 2020 order required Xcel in its 2022 true-up filing and future filings, to identify the number and MWhs of planned outages that were originally classified as unplanned.

On August 27, 2021, Xcel filed a petition requesting to increase its monthly fuel rate for October through December 2021 for an unrecovered balance of $25.2 million.

On September 24, 2021, the Department filed a letter supporting Xcel's proposal to recover $25.2 million.

On March 1, 2022, Xcel submitted its 2021 true-up petition, requesting approval of 2021 actual FCA expenses of $894.1 million, $144.3 million higher than the approved forecast of $749.7 million. On a unit cost basis, Xcel's requested 2021 actual FCA costs were $31.71/MWh versus $27.78/MWh forecasted. Xcel collected $812.3 million in 2021 FCA revenues leading to a $81.8 million under-recovery.

On July 5, 2022, the Commission issued an order approving Xcel's 2021 true-up.

Xcel is recovering the $81.0 million through increased FCA charges over the 12 months beginning September 2022.[9]

3. 2022 FCA (21-295)

On April 30, 2021, Xcel filed its 2022 forecast petition, in Docket No. E002/AA-21-295.

On December 2, 2021 the Commission issued an order approving Xcel's 2022 forecast. The approved forecasted FCA costs for 2022 were $849.4 million or $31.47/MWh.[10]

In addition, the December 2, 2021 order required Xcel Energy, in its 2023 true-up filing, to (a) identify the number and MWhs of planned outages that were originally classified as unplanned, and (b) to file a request to modify the approved fuel rate as soon as practicable, if during 2022 Xcel Energy experiences an impact on all FCA costs and revenues of plus or minus 5% or larger. Xcel Energy will then be

[7] July 7, 2021 compliance filing in Docket No. E002/AA-19-293.
[8] Xcel July 31, 2020 reply comments in Docket No. E002/AA-20-417, Part A, Attachment 1, page 1 of 3.
[9] July 13, 2022 compliance filing in Docket No. E002/AA-20-417.
[10] Xcel July 30, 2021 reply comments in Docket No. E002/AA-21-295, Part A, Attachment 1, page 1 of 3.

required to implement the revised rates, subject to a full refund, following a 30-day notice period, if no party objects to the revised rates.

On May 19, 2022, Xcel made a compliance filing proposing to increase its monthly fuel forecast charges by $61 million for the second-half of 2022. The filing was unopposed.

On June 27, 2022, Xcel submitted a compliance filing with the increased FCA rates as requested in the May 19, 2022 filing.

On March 1, 2023, Xcel submitted its 2022 true-up petition, requesting approval of 2022 actual FCA expenses of $950.2 million, $100.8 million higher than the approved forecast of $849.4 million. On a unit cost basis, Xcel's requested 2022 actual FCA costs were $33.55/MWh versus $31.47/MWh forecasted. Xcel collected $954.0 million in 2022 FCA revenues leading to a $3.8 million over-recovery.

On April 14, 2023, the Department submitted comments recommending approval of Xcel's 2022 true-up.

4. 2023 FCA (22-179)

On May 2, 2022, Xcel filed its 2023 forecast petition, in Docket No. E002/AA-22-179.

On December 5, 2022 the Commission issued an order approving Xcel's 2023 forecast. The approved forecasted FCA costs for 2023 were $1,069.2 million or $38.96/MWh.[11]

On May 19, 2023, Xcel submitted a compliance filing proposing to reduce the 2023 forecast by $30 million. Xcel also proposed reducing 2023 FCA rates to recover $10 million less in each of July, August, and September, to reflect this lower forecast. The updated forecasted FCA costs for 2023 were $1,039.2 million or $37.87/MWh. This update was *de facto* approved, as no party objected during the 30-day notice period established under the FCA process.

5. 2024 FCA (23-153)

On May 1, 2023, Xcel filed the instant petition requesting approval of its 2024 FCA forecast and rates, subject to true-up.

III. REPORTING REQUIREMENTS

The Commission's June 12, 2019 order in Docket No. E999/CI-03-802, order point 7, approved Xcel's reporting requirements for the forecast and true-up petitions as provided in Attachment 3 of the Department's March 1, 2019 joint comments.

[11] Xcel July 29, 2022 reply comments in Docket No. E002/AA-22-179, Part A, Attachment 1, page 1 of 3.

Xcel provided a compliance matrix in Part C, Attachment 1 of the instant petition and provided a corrected compliance matrix in response to Department information request (IR) 10.[12]

The Department verified the Company provided the required information as follows.

Policies and Actions (Minnesota Rules 7825.2800):
Page 20 and Part D, Attachments 1-10 of the instant petition.

Base Cost of Fuel (Minnesota Rules 7825.2810):
Pages 20-21 and Part A, Attachment 1 of the instant petition.

Billing Adjustment Amounts Charge to Customers by Each Type of Energy Cost (Minnesota Rules 7825.2810):
Page 4 - Table 1; Pages 20-21, and Part A, Attachment 1 of the instant petition.

Total Cost of Fuel Delivered to Customers (Minnesota Rules 7825.2810)
On page 21, Xcel stated it will provide this information in their 2024 true-up petition.

Revenue Collected from Customers for Energy Delivered (Minnesota Rules 7825.2810)
On page 21, Xcel stated it will provide this information in their 2024 true-up petition.

Monthly Fuel Clause Adjustments (Minnesota Rules 7825.2810)
Part A, Attachment 1 of the instant petition.

Annual Five-Year Fuel Cost Forecast (Minnesota Rules 7825.2830):
Page 21 and Part A, Attachments 1-3 and Part E, Attachments 1-3 of the instant petition.

Fossil Fuel Costs, Coal Burn Expenses, and Nuclear Fuel Expenses (Minnesota Rules 7825.2830):
Part B, Attachments 2-4 of the instant petition.

Peak Demand and Energy Requirements (Minnesota Rules 7825.2830):
Part A, Attachment 4 and Part E, Attachment 7 of the instant petition.

Estimated Load Management Impact (Minnesota Rules 7825.2830):
Part E, Attachment 8 of the instant petition.

Wind Curtailment Report Narrative (projected wind curtailment costs) (Docket No. AA-04-1279, Order issued April 4, 2006):
Pages 6, 9-10 and Part B, Attachment 10, and Part G, Workpaper 8 of the instant petition.[13]
Community Solar Gardens (Docket No. M-13-867):
Page 9 and Part B Attachment 12 and Part G, Workpapers 6-7 of the instant petition.

[12] See DOC **PUBLIC** Attachment 1, Xcel responses to Department IRs 1-11. For simplicity, in the remainder of these comments, the Department refers to these IR responses without reference to this attachment.
[13] Xcel provides a full wind curtailment narrative in its true-up petitions.

FCA Rule Variance Dockets (Docket No. AA-15-611):
Page 19 and Part C, Attachment 2 of the instant petition.

MISO Day 2 and Day 3 Charges & Allocation (Docket Nos. AA-07-1130, M-08-528, and AA-19-293):
Pages 18-19 and Part A, Attachments 1-3 and Part B, Attachment 9 and Part F, Workpaper 5 of the instant petition.

Notice of Reports Availability (Minnesota Rules 7825.2840):
Addendum to the instant petition.

Renewable*Connect Neutrality (Docket No. M-15-985):
Pages 11-12 and Part G, Workpaper 10 of the instant petition.

Windsource (Docket No. M-01-1479):
On page 12, Xcel stated the Windsource program will close in 2023 and subscribers will be moved to Renewable*Connect, so the Company will no longer show separate data for Windsource resources and subscribers in its fuel forecast. Support for the Renewable*Connect forecast is found in Part G, Workpaper 10.

Plant Outage Summary (Docket AA-06-1208):
Pages 6-8, Part B Attachments 6-7, Part G Workpaper 9 of the instant petition.

Moraine II, PPA (Docket M-08-1487):
Part B, Attachment 11 and Part C, Attachment 2 page 2 of 2 of instant petition.

Monthly MISO Day 2 Charges and Allocations (Docket AA-07-1130):
Pages 11 and 18-19 and Part B, Attachment 9 and Part F, Workpaper 5 of the instant petition.

Prospective Asset and Non-Asset Based Margin Sharing (Docket No. GR-10-971):
Pages 10 and 15 of the instant petition.[14]

Saver's Switch Discount (Docket No. M-01-46):
In Part B, Attachment 13, page 6 of 9, Xcel stated its Saver's Switch program results in short-term interruptions of service designed to reduce system capacity requirements rather than permanent reductions in energy use, so it is not considered here.

Self-Scheduling Reporting (New) (Docket Nos. AA-17-492, AA-18-373, and CI-19-704):
Part D, Attachment 7 of the instant petition.

Compliance and Reporting Requirements Summary:
Based on our review, the Department recommends the Commission accept Xcel's compliance filings

[14] See also Xcel's response to Department IR 5.

and reporting requirements.

IV. SALES FORECAST

As explained on pages 2 and 5-6 of the petition, the Company has used PLEXOS software since 2015 to model its power supply system and forecast costs for fuel and purchased energy.[15] The PLEXOS simulation's objective is to estimate how Xcel's resources may be dispatched and used to meet the hourly load requirements at the lowest costs.

The PLEXOS simulation estimates the hourly load requirement based on the most recent forecast of monthly energy and monthly peak demands developed by the Company's Sales Energy & Demand Forecasting Group. Xcel summarizes its sales in Part G, Workpaper 1 and describes the forecasting process in detail in Part B, Attachment 13.[16] Key input assumptions used to develop the PLEXOS forecast are provided in Part F, Workpaper 1.

The Department reviewed Xcel's 2024 sales forecast information provided in Parts B, F, and G of the petition. A summary of Xcel's net system sales and production levels for its 2024 forecast, 2023 forecast, 2020-2022 actuals, and 2020-2022 average is provided in Department Table 2 below:

Department Table 2:
Xcel's 2024 and 2023 Forecasted Sales and Generation vs. 2020-2022 Actuals (MWh)[17]

	2024 Forecast	2023 Forecast	2022 Actuals	2021 Actuals	2020 Actuals	2020-22 Avg. Actuals
Net System Sales	38,197,851 [1]	38,738,602 [2]	39,686,566 [1]	39,305,604 [1]	38,456,375 [1]	39,149,515
Net MN Sales	26,842,355 [3]	27,443,347 [4]	28,318,349 [5]	28,195,869 [6]	27,564,206 [7]	28,026,141
Net System Gen.	42,176,000 [8]	42,329,000 [9]	41,072,700 [10]	40,986,200 [10]	40,108,800 [10]	40,722,567

[1] Xcel's response to DOC IR 2(a), updated over email on 6/19/2023, marked by Xcel as response to DOC Informal IR 1
[2] Xcel's July 29, 2022 Reply Comments in Docket No. E002/AA-22-179, Attachment A, line 44
[3] Petition, Attachment 1, line 59
[4] Xcel's July 29, 2022 Reply Comments in Docket No. E002/AA-22-179, Attachment A, line 54
[5] Xcel's March 1, 2023 True-Up Petition in Docket No. E002/AA-21-295, Part A, Attachment 1
[6] Xcel's March 1, 2022 True-Up Petition in Docket No. E002/AA-20-417, Part A, Attachment 1
[7] Xcel's March 1, 2021 True-Up Petition in Docket No. E002/AA-19-293, Part A, Attachment 1
[8] Petition, Part A, Attachment 2, line 33.
[9] Xcel's July 29, 2022 Reply Comments in Docket No. E002/AA-22-179, Attachment B, Line 33.
[10] Xcel's response to DOC IR 1.b.

[15] See also Part B, Attachment 1 of the petition.
[16] As stated in Part B, Attachment 13: "Xcel Energy prepares its forecast by major customer class and jurisdiction, using a variety of statistical and econometric techniques. The NSP System serves five jurisdictions. Minnesota, North Dakota and South Dakota are served by Northern States Power Company (NSPM). Wisconsin and Michigan are served by Northern States Power Company, a Wisconsin corporation (NSPW). The NSPM and NSPW Systems operate as an integrated system."
[17] Excludes Windsource and Renewable*Connect.

The Department notes Xcel's 2024 sales forecast is slightly below its 2023 sales forecast. Xcel's 2024 sales forecast is also below the three-year average of actuals sales for 2020-2022. In contrast, the Company's 2024 forecast system generation is higher than its three-year average of actual production levels for 2020-2022, despite slightly being below than its 2023 forecast production level. The Department requests Xcel explain, in reply comments, the key drivers of forecasted 2024 sales being lower than historical averages and forecasted 2024 system generation being higher.

Irrespective of this divergence in Xcel's 2024 sales and generation forecast, the Department concludes Xcel's 2024 sales forecast appears reasonable, given Xcel is using the same methods as in prior proceedings and the forecast is within the range of prior years. As a result, the Department recommends the Commission accept Xcel's 2024 forecasted sales in this proceeding to set FCA rates for 2024 and notes Xcel's FCA revenues and costs are subject to true-up in the 2024 true-up petition to be filed in 2025. Finally, the Department's recommendations in this docket should not be used in Xcel's future rate cases or other rate proceedings, where a more thorough review of the sales forecast will occur.

V. 2024 FORECASTED FCA COST SUMMARY

Xcel's forecasted 2024 FCA cost summary is provided in Part A, Attachment 1 of the instant petition. The summary includes: costs for fuel for Company-owned generation facilities, long-term PPAs, short-term market purchases from MISO; less sales revenues received from MISO for asset-based sales and costs for Renewable*Connect programs.

Once Xcel determines its forecasted 2024 FCA on a total system level, Xcel assigns Minnesota its jurisdictional share of these costs based on its pro-rata share of megawatt-hours. Minnesota-specific adjustments are then added for CSG-AMC and biomass buyouts to determine Minnesota's forecasted net 2024 FCA costs.

For the record, the Department notes it is the Company's responsibility to properly identify and forecast all charges it intends to recover through the true-up process. Absent this responsibility, the Department notes electric utilities may have little incentive to accurately include and forecast all costs they intend to recover, which could limit the benefits of the forecast and true-up processes. Further, poorly supported forecast and/or true-up filings will likely lead to delays in the regulatory process or recommendations by Consumer Advocates of disallowance of costs.

For comparison purposes, the Department asked Xcel, in Department IR 2, to provide its actual and average FCA costs for 2020-2022 on a similar basis to its forecasted 2024 FCA costs provided in Part A, Attachment 1 of the instant petition.

Department Table 3, below, summarizes Xcel's FCA costs for its 2024 forecast, 2023 forecast, 2020-2022 actuals, and 2020-2022 average.

Department Table 3:
Xcel's Forecasted 2024 FCA Cost Summary (in 1000's)

				2024 Forecast*	2023 Forecast**	2022 Actuals***	2021 Actuals***	2020 Actuals***	2020-22 Avg.
				[TRADE SECRET DATA EXCISED					
1		Own Generation	$			$ 633,483	$ 563,490	$ 450,934	$ 549,303
2	+	LT Purchased Energy	$			$ 878,971	$ 789,560	$ 459,843	$ 709,458
3	+	LT CSG Energy	$	$ 329,263	$ 286,939	$ 184,030	$ 183,652	$ 151,466	$ 173,049
4	+	ST Market Purchases	$			$ 146,773	$ 85,141	$ 108,791	$ 113,568
5	=	Total System Costs	$			$ 1,843,257	$ 1,621,843	$ 1,171,034	$ 1,545,378
6	-	Sales Revenues****	$			$ (564,368)	$ (437,200)	$ (200,170)	$ (400,579)
7	-	CSG-AMC	$	$ (247,045)	$ (188,579)	$ (99,903)	$ (110,745)	$ (130,594)	$ (113,747)
8	-	R*C Pilot	$			$ (6,291)	$ (6,190)	$ (6,139)	$ (6,207)
9	-	R*C MTM	$			$ (18,190)	$ (12,169)	$ (9,474)	$ (13,278)
10	-	R*C LT	$			$ -	$ -	$ -	$ -
11	=	Net System FCA Costs	$			$ 1,154,506	$ 1,055,539	$ 824,657	$ 1,011,567
12		Total System Sales	MWh			40,363,073	39,923,939	39,033,390	39,773,467
13	-	R*C Pilot Sales	MWh			(183,231)	(177,779)	(182,541)	(181,184)
14	-	R*C MTM Sales	MWh			(493,276)	(440,556)	(394,474)	(442,769)
15	-	R*C LT Sales	MWh			0	0	0	0
16		Net System Sales	MWh	38,197,851	38,739,103	39,686,566	39,305,604	38,456,375	39,149,515
17		**Net System FCA Unit Costs**	**$/MWh**			**$29.09**	**$26.85**	**$21.44**	**$25.84**
18		MN Sales	MWh			28,994,856	28,814,204	28,141,221	28,650,094
19	-	R*C Pilot Sales	MWh			-183,231	-177,779	-182,541	-181,184
20	-	R*C MTM Sales	MWh			-493,276	-440,556	-394,474	-442,769
21	-	R*C LT Sales	MWh			0	0	0	0
22		Net MN Sales	MWh	26,842,355	27,443,347	28,318,349	28,195,869	27,564,206	28,026,141
23		MN FCA Costs	$			$ 824,270	$ 758,124	$ 591,397	$ 724,597
24	+	CSG-AMC	$	$ 247,045	$ 188,579	$ 99,883	$ 110,646	$ 130,420	$ 113,650
25	+	Laurentian Buyout	$			$ 13,062	$ 13,192	$ 13,134	$ 13,129
26	+	Pine Bend Buyout	$			$ -	$ -	$ 113	$ 38
27	+	Benson Buyout	$			$ 9,844	$ 10,249	$ 10,452	$ 10,182
28	+	SES Exem. Rec. & Saver's Switch Adj	$			$ 3,162	$ 1,834	$ 777	$ 1,924
29		Net MN FCA Costs	$	$ 1,030,253	$ 1,069,246	$ 950,221	$ 894,044	$ 746,292	$ 863,519
30		**Net MN FCA Unit Costs**	**$/MWh**	**$38.38**	**$38.96**	**$33.55**	**$31.71**	**$27.07**	**$30.81**
31		**MN FCA Premium Unit Costs*****	**$/MWh**			**$4.46**	**$4.85**	**$5.63**	**$4.97**
				TRADE SECRET DATA EXCISED]					

* Instant Petition and response to Department IR 2(a) updated over email on June 19, 2023
** Xcel's July 29, 2022 Reply Comments, Attachment A, in Docket No. E002/AA-22-179.
*** Xcel's response to Department IR 2(a) updated over emal on June 19, 2023
**** Revenues received from MISO attributable to the Company's asset-based sales.
***** The costs of CSGs and biomass buyout costs are both solely assigned to the Minnesota jurisdiction.

Xcel's actual net system FCA costs (line 11) had increased in recent years. For 2024, Xcel expects this trend to **[TRADE SECRET DATA HAS BEEN EXCISED]**.

The Department observes Xcel's Minnesota FCA costs (line 29) have been increasing at a **[TRADE SECRET DATA HAS BEEN EXCISED]** over the years than net system FCA costs (line 11). This divergence between the trends in FCA rates Xcel charges to its Minnesota customers compared to customers in North Dakota and South Dakota is overwhelmingly due to only Minnesota ratepayers paying for costs of community solar gardens in Minnesota that are above market costs (CSG-AMC) (line 24), with the remainder due to biomass buyout costs (lines 25-27); and other costs (line 28).

The Department notes forecasted 2024 overall cost increases for the Minnesota jurisdiction (line 29), relative to 2020-2022 actuals, coupled with a continued decreased in forecasted net Minnesota sales volumes (line 22) results in significantly **[TRADE SECRET DATA HAS BEEN EXCISED]** net Minnesota FCA costs per MWh for 2024 (line 31). This premium has **[TRADE SECRET DATA HAS BEEN EXCISED]** over the years primarily due to CSG-AMC costs more than doubling and Minnesota ratepayers continuing to bear the full burden of these costs.

As an overall note, simply analyzing cost variances by category in dollars does not account for the changing nature of Xcel's generation fleet, which continues to rely more on renewables and less on fossil fuels. As a result, the Department asked Xcel to provide the MWh associated with each FCA cost category and the resulting cost per MWh along with an explanation for variances greater than 5% in its response to Department IR No. 2. In the Department's view, this information should consider the changing nature of Xcel's generating fleet and provide a more reasonable way to compare FCA costs over the years on an apples-to-apples basis. The Department's analysis of Xcel's FCA costs by category in dollars and dollars per MWh is provided in the following sections.

VI. OWNED GENERATION

Below, Department Table 4 summarizes Xcel's forecasted 2024 and 2023 FCA costs and actual 2020-2022 FCA costs for Company-owned generation by fuel type in dollars and dollars per MWh. The Department discusses each fuel category for owned generation below.

Department Table 4:
Company-Owned Generation FCA Costs

Fuel	Unit	Forecast 2024	Forecast 2023	Actuals 2022	Actuals 2021	Actuals 2020	Actuals 2020-22 Avg
		[TRADE SECRET DATA EXCISED					
Coal	$000s			$ 242,848	$ 197,754	$ 182,474	$ 207,692
	GWh			9,524	9,265	8,528	9,105
	$/MWh			**$25.50**	**$21.34**	**$21.40**	**$22.81**
Wood/ RDF	$000s			$ 9,781	$ 9,155	$ 9,013	$ 9,316
	GWh			513	534	554	534
	$/MWh			**$19.05**	**$17.15**	**$16.28**	**$17.46**
Natural Gas CC	$000s			$ 217,122	$ 195,504	$ 120,536	$ 177,721
	GWh			3,853	6,101	6,121	5,358
	$/MWh			**$56.36**	**$32.05**	**$19.69**	**$33.17**
Nat. Gas & Oil CT	$000s			$ 46,559	$ 49,824	$ 18,924	$ 38,436
	GWh			528	843	715	695
	$/MWh			**$88.10**	**$59.13**	**$26.45**	**$55.26**
Nuclear	$000s			$ 117,174	$ 111,253	$ 119,986	$ 116,138
	GWh			14,696	14,069	14,677	14,481
	$/MWh			**$7.97**	**$7.91**	**$8.17**	**$8.02**
Total	$000s			$ 633,483	$ 563,490	$ 450,934	$ 549,303
	GWh			29,115	30,811	30,595	30,173
	$/MWh			**$21.76**	**$18.29**	**$14.74**	**$18.20**
		TRADE SECRET DATA EXCISED]					

Sources:
2024 Forecast and 2020-2022 Actuals: Xcel's response to Department IR 2
2023 Forecast: Xcel's July 29 Reply Comments in Docket No. E002/AA-22-179, Attachments A, B, C

A. OWNED GAS

Relative to the 2023 forecast, Xcel forecasts natural gas unit costs to **[TRADE SECRET DATA HAS BEEN EXCISED].** Relative to 2022, natural gas prices are expected to drop precipitously and end up closer to historical averages.[18] Xcel-owned natural gas generation in watt-hours is forecasted to be **[TRADE SECRET DATA HAS BEEN EXCISED]** relative to historical levels. Combining the forecasted trends in unit costs and generation, Xcel forecasts total fuel costs for owned gas generation to **[TRADE SECRET DATA HAS BEEN EXCISED]**.

[18] Xcel's response to Department IR 2. See also Xcel's discussion on page 14 of the petition.

B. OWNED COAL

Xcel forecasts coal generation to **[TRADE SECRET DATA TRADE SECRET DATA HAS BEEN EXCISED]**. As Xcel states on page 14 of the petition, one key reason for this change is the planned retirement of Sherco 2 in 2023. Other factors impacting 2024 forecasted coal generation, as cited by Xcel, are the end of seasonal operations for coal units and EPA NOx limitations.[19] Offsetting this forecasted **[TRADE SECRET DATA HAS BEEN EXCISED]** in coal generation, Xcel forecasts coal and rail prices to be **[TRADE SECRET DATA HAS BEEN EXCISED]** than 2020-2022 on average.[20] Despite **[TRADE SECRET DATA HAS BEEN EXCISED]**, the **[TRADE SECRET DATA HAS BEEN EXCISED]** results in overall owned-coal fuel costs **[TRADE SECRET DATA HAS BEEN EXCISED]**.

C. OWNED NUCLEAR

Xcel forecasts 2024 nuclear fuel costs to be **[TRADE SECRET DATA HAS BEEN EXCISED]**.

D. OWNED WOOD

Xcel also forecasts 2024 wood fuel costs to be **[TRADE SECRET DATA HAS BEEN EXCISED]**. However, Xcel forecasts wood generation to continue to **[TRADE SECRET DATA HAS BEEN EXCISED]**. This forecast is offset by Xcel forecasting wood commodity prices to be **[TRADE SECRET DATA HAS BEEN EXCISED]**.

E. OWNED GENERATION OVERALL

Overall, the Department notes total forecasted 2024 fuel costs for Company-owned generation is around **[TRADE SECRET DATA HAS BEEN EXCISED]** compared to 2020-2022. Compared to 2022 and 2023's forecast, Xcel's forecast for 2024 is overall **[TRADE SECRET DATA HAS BEEN EXCISED]**.

Based on our review and the explanations Xcel provided, the Department concludes Xcel's forecasted 2024 fuel costs for Company-owned generating units appear reasonable. As a result, the Department recommends the Commission accept Xcel's forecasted 2024 fuel costs for company-owned generation for the purpose of setting initial 2024 FCA rates in this proceeding, subject to the subsequent true-up.

VII. LONG-TERM POWER PURCHASE AGREEMENTS

Department Table 5 below provides a breakout of Xcel's forecasted and historical costs and energy for long-term power purchase agreements (PPAs). Xcel's long-term power purchases come from gas, solar, wind, other, and CSG facilities. The petition lists individual PPAs in Part B, Attachment 11.

[19] Petition, pages 7 and 15.
[20] Xcel's response to Department IR 2.

Department Table 5:
Long-Term Purchased Energy FCA Costs

Fuel	Unit	Forecast		Actuals			
		2024	2023	2022	2021	2020	2020-22 Avg
CSG	$000s	$ 329,263	$ 286,939	$ 184,030	$ 183,652	$ 151,466	$ 173,049
	GWh	2,312	1,988	1,404	1,456	1,200	$ 1,353
	$/MWh	**$142.42**	**$144.37**	**$131.12**	**$126.17**	**$126.27**	**$127.91**
Gas		**[TRADE SECRET DATA EXCISED**					
	$000s			$ 155,586	$ 146,232	$ 79,565	$ 127,128
	GWh			2,495	4,032	3,716	$ 3,414
	$/MWh			**$62.36**	**$36.27**	**$21.41**	**$37.23**
Solar	$000s			$ 48,633	$ 42,905	$ 41,490	$ 44,343
	GWh			788	609	589	$ 662
	$/MWh			**$61.73**	**$70.47**	**$70.43**	**$66.99**
Wind	$000s			$ 244,613	$ 194,087	$ 201,803	$ 213,501
	GWh			6,470	5,008	5,539	$ 5,672
	$/MWh			**$37.81**	**$38.76**	**$36.43**	**$37.64**
Other	$000s			$ 190,665	$ 176,450	$ 136,985	$ 168,033
	GWh			2,220	2,139	1,780	$ 2,046
	$/MWh			**$85.90**	**$82.51**	**$76.95**	**$82.12**
Total	$000s			$ 823,527	$ 743,326	$ 611,309	$ 726,054
	GWh			13,376	13,243	12,824	$ 13,148
	$/MWh			**$61.57**	**$56.13**	**$47.67**	**$55.22**
		TRADE SECRET DATA EXCISED]					

A. GAS PPAS

Overall, Xcel is expecting to **[TRADE SECRET DATA HAS BEEN EXCISED]**. Xcel forecasts a **[TRADE SECRET DATA HAS BEEN EXCISED]** in the amount of energy purchased from gas power plants in 2024, relative to 2020-2022 on average. The price per MWh for purchased gas is forecasted to be **[TRADE SECRET DATA HAS BEEN EXCISED]** than 2020-2022 on average, resulting in total purchased gas costs in dollars **[TRADE SECRET DATA HAS BEEN EXCISED]**.

B. SOLAR PPAS (NON-CSG)

For solar PPAs (solar excluding community solar gardens), Xcel forecasts a **[TRADE SECRET DATA HAS BEEN EXCISED]** relative to the 2020-2022 average. Solar PPA unit cost are forecasted to be **[TRADE SECRET DATA HAS BEEN EXCISED]** as historical averages. The result is overall solar PPA costs are forecasted to be **[TRADE SECRET DATA HAS BEEN EXCISED]** than 2020-2022 on average.

C. WIND PPAS

Forecasted wind PPA prices are **[TRADE SECRET DATA HAS BEEN EXCISED]** relative to their 2020-2022 average. Wind energy purchased and dollars spent on wind PPAs are **[TRADE SECRET DATA HAS BEEN EXCISED].**

D. COMMUNITY SOLAR GARDEN PPAS

For Community Solar Gardens, Xcel forecasts costs to increase by 90% relative to 2020-2022 averages and by 15% relative to the forecast for 2023. The forecasted increase is primarily due to a 71% increase in forecasted energy purchased from CSGs relative to 2020-22 on average, with the remainder due to a 11.4% forecasted increase in the average purchase price. Xcel attributes the increase in average CSG rate due to continued retail rate (ARR) escalation.[21] As noted in Xcel's petition, the net costs of Community Solar Gardens are assigned only to Minnesota customers. Xcel provides supporting documentation for its solar garden assumptions in Part B, Attachment 12 and Part G, Workpapers 6 and 7.

E. OTHER PPAS

The final category in Xcel's long-term PPAs is "Other," which consists of "PPAs that do not fit within one of the prior three categories (primarily small hydro PPAs, the remaining biomass PPA, and the PPA with Manitoba Hydro)."[22] Xcel forecasts that the average unit price in this category will remain **[TRADE SECRET DATA HAS BEEN EXCISED]** but that energy purchased will **[TRADE SECRET DATA HAS BEEN EXCISED]**. While the Department does not at this time have any objections to Xcel's forecasts for this category, the Department requests Xcel explain, in reply comments, the key drivers behind the **[TRADE SECRET DATA HAS BEEN EXCISED]** relative to historical levels.

F. PPAS OVERALL

Based on our review and the explanations Xcel provided, the Department concludes the Company's forecasted 2024 long-term purchased energy costs appear reasonable. As a result, the Department recommends the Commission accept Xcel's forecasted 2024 purchased energy costs for the purpose of setting initial FCA rates in this proceeding, subject to the subsequent true-up.

VIII. MISO ENERGY MARKET (MISO DAY 2) AND ANCILLARY SERVICES MARKET (ASM OR MISO DAY 3)

A. OVERVIEW OF MISO DAY 2 & 3

The Department reviewed Xcel's MISO Day 2 and MISO Day 3 costs and revenues, as discussed on page 11 of the petition and shown in Part B, Attachment 9 and Part F, Workpaper 5. As shown therein, Xcel used an annualized average of actual costs from April 2021 through December 2022 to forecast its 2024 congestion costs, financial transmission rights, incremental transmission losses, RSG/RNU, and

[21] Xcel's response to DOC IR 2, Attachment A, pages 2-3.
[22] Petition, page 10.

ASM. The Department notes this method is a departure from pre-2023-forecast FCA filings, which used a historical five-year average to forecast these costs. Given the significant increases in these costs experienced in 2021 and 2022, as discussed in prior year FCAs, the Department agrees with this approach and notes it is likely to result in a more accurate forecast for 2024 MISO costs and revenues compared to using a longer-term historical average. A summary of Xcel's forecasted 2024 and 2023 MISO Day 2 and Day 3 charges is provided in Department Table 6 below:

Department Table 6:
Forecasted MISO Day 2 and Day 3 Charges

Category	**Forecast in $000s**	
	2024	**2023**
	[TRADE SECRET DATA EXCISED	
Congestion		
Financial Transmission Rights		
Incremental Transmission Losses		
Revenue Sufficiency Guaranty & Revenue Neutrality Uplift Charges		
Ancillary Services Market a/k/a Day 3		
MISO Market Charges Total		
MISO Market Purchases from PLEXOS		
MISO Market Sales from PLEXOS		
Net MISO Day 2 & 3 Costs & Revenues		
	TRADE SECRET DATA EXCISED]	

Sources:
2024 Forecast: Petition, Part B, Attachment 9
2023 Forecast: Xcel's July 29, 2022 Reply Comments in Docket No. E002/AA-22-179, Attachment F

B. CONGESTION COSTS

As shown in the table above, Xcel forecasts congestion costs to **[TRADE SECRET DATA HAS BEEN EXCISED]** in 2024 relative to 2023's forecast. However, as shown in Xcel's response to Department IR 7, Xcel's congestion forecast for forecast 2024 is **[TRADE SECRET DATA HAS BEEN EXCISED]**.[23] In other words, Xcel forecasts congestion costs **[TRADE SECRET DATA HAS BEEN EXCISED]**.

Xcel stated the following beginning on page 13 of the petition:

> Congestion costs **[TRADE SECRET DATA HAS BEEN EXCISED]** for 2024 as compared to authorized [forecasted] costs for 2023. The forecast of congestion costs is based on actual data which has **[TRADE SECRET DATA HAS BEEN EXCISED]** as shown in Figure 1. Congestion costs, which have been high since 2021, are primarily driven by large additions of renewable energy in the MISO footprint without sufficient addition of transmission to

[23] Xcel's response to Department IR 7.

> deliver energy from generators to load centers within the MISO footprint. The Company monitors congestion costs regularly, and if future actual costs show another step change or significant trend, we plan to update accordingly in our July Reply Comments.
>
> [Xcel] Figure 1: Congestion Costs
>
> **[TRADE SECRET DATA HAS BEEN EXCISED]**

Based on the above, the Department concludes Xcel reasonably explained its forecasted 2024 congestion charges.

C. HISTORICAL ANALYSIS

Historically, Xcel's FCA filing excluded certain MISO charge types from its forecast, such as Day-Ahead Asset Energy, which is assumed to be captured in its PLEXOS model. In addition, Xcel included other non-MISO items in its forecasts, such as incremental transmission line losses. As the Department explained in our July 1, 2019 Comments regarding Xcel's 2020 Forecast Report, in Docket No. E002/AA-19-293, Xcel's MISO Day 2 and Day 3 charge types generally fall into three categories:

1) charge types reflected in Part B, Attachment 9 (Department Table 6);
2) charge types not reflected in Part B, Attachment 9 (i.e. Day-Ahead Asset Energy) but assumed to be captured in the PLEXOS model; and
3) administrative charge types not reflected in Department Table 6 or the PLEXOS model because they are recovered in base rates.

In addition, historically Xcel's forecasted MISO Day 2 and Day 3 charges ended with "MISO Market Charges Total" as shown on Department Table 6. In the current petition, the Department notes Xcel added MISO market purchase and sales. As a result, the Net MISO Day 2 and 3 costs and revenues total for the 2024 forecast now ties the net MISO Day 2 and 3 costs and revenues provided in the Company's response to Department IR No. 3, as discussed below.

In Department IR No. 3, the Department asked Xcel to explain in detail where its total MISO Day 2 and Day 3 charges were included in its forecasted 2023 FCA cost summary. In addition, the Department asked Xcel to provide its forecasted 2023 and actual 2010-2021 net MISO Day 2 and Day 3 charges. Xcel replied:

> The net of MISO Day 2 and Day 3 costs and revenues in the forecast is **[PROTECTED DATA HAS BEEN EXCISED]** which is the sum of lines 23, 24, and 29 from Part A, Attachment 1, page 1 of 3 (as shown in Part B, Attachment 9 provided with filing).

> Xcel's actual net MISO Day 2 and MISO Day 3 costs and revenues for calendar years 2020, 2021, and 2022:

	Day 2	Day 3/ASM	Total
2020	$(104,623,614.70)	$18,474,150.97	$(86,149,463.73)
2021	$(153,735,316.84)	$35,849,420.45	$(117,885,896.39)
2022	$(225,986,444.67)	$42,468,105.37	$(183,518,339.30)

Historically, Xcel provided schedules showing the allocation of MISO Day 2 and Day 3 charges between retail and asset-based wholesale categories for purposes of determining asset-based margins.[24] However, as explained in the next section, Xcel did not include an itemization of asset-based margins on Part A, Attachment 1, page 1 because 100% of asset-based margins are intended to be returned to ratepayers as required by a settlement agreement for NSP-Minnesota. Therefore, no itemization is necessary as 100% of asset-based margins are returned through the calculations on Part A, Attachment 1, page 1 of the Petition by inclusion of 100% of the asset-based sales revenues at line 29 and 100% of the asset-based sales cost included in line 27, resulting in 100% of Xcel's asset-based margins given back to ratepayers in the FCA. As a result, as in Xcel's 2021-2023 forecast petitions, the Department understands Xcel did not allocate its forecasted 2024 MISO Day 2 and Day 3 charges between retail and asset-based wholesale categories. Instead, all MISO Day 2 and Day 3 costs and revenues, except those recovered in base rates, are included in Xcel's forecasted 2024 FCA rates.

Based on our review and the explanations Xcel provided, the Department concludes the Company's forecasted 2024 MISO Day 2 and Day 3 charges appear reasonable. As a result, the Department recommends the Commission accept Xcel's forecasted 2024 MISO Day 2 and Day 3 charges for the purpose of setting initial FCA rates in this proceeding, subject to subsequent true-up.

IX. ASSET-BASED MARGINS

Xcel summarized its forecasted 2024 asset-based margins as follows:

> … the PLEXOS model forecasts monthly intersystem sales opportunities of excess generation after system native requirements are fulfilled. This is done through an hourly dispatch simulation based on projected hourly market prices representing LMP for the NSP system. The forecasted sales revenue generated from the asset-based sales results in a reduction to system fuel costs, and is shown in Part A, Attachment 1. Forecast asset-based margins for 2024 are **[TRADE SECRET DATA HAS BEEN EXCISED]** and are reflected in the Net System Costs shown at line 35 of Part A, Attachment 1, page 1 of 3. Asset-based margins are the difference between asset-based Sales Revenues shown at line 29 less the underlying

[24] An example of these allocations can be seen in see Part J, Section 5, Schedule 7 of Xcel's initial filing in Docket No. E999/AA-18-373.

> generation fuel costs incurred to make the asset-based sales which are part of the total fuel costs shown at line 27.

In Department IR No. 4, the Department to confirm it is returning 100% of asset-based margins to ratepayers and to provide its actual asset-based margins for 2020-2022. Xcel replied:

> Xcel Energy plans to return 100% of asset-based margins to ratepayers as required by the April 24, 2006 settlement agreement in the Company's 2006 test year electric rate case (Docket No. E002/GR-05-1428) and approved in the Commission's July 6, 2006 Order in that docket (Order Point No. 2). The calculations on Part A, Attachment 1, page 1 of 3 return 100% of asset-based margins to customers through inclusion of 100% of the asset-based sales revenues at line 29 and 100% of the asset-based sales cost at line 27.

Asset-Based Margins (millions)

2020	$51.5	Actual
2021	$128.3	Actual
2022	$188.3	Actual

The Department notes Xcel's forecasted 2024 asset-based margins of **[TRADE SECRET DATA HAS BEEN EXCISED]** are **[TRADE SECRET DATA HAS BEEN EXCISED]** than Xcel's actual 2022 asset-based margins of **[TRADE SECRET DATA HAS BEEN EXCISED]**.

Xcel provided a helpful discussion related to this issue on page 15 of the petition, stating:

> Forward LMP for the 2024 test year are projected to be 30 percent lower than prices authorized for 2023. The average of the 2024 hourly LMP assumed in the forecast is **[TRADE SECRET DATA HAS BEEN EXCISED]** that was authorized for 2023. LMP has fallen in response to factors that are driving natural gas prices lower in 2024. Lower LMPs for 2024 are resulting in forecast asset-based sales revenues that are **[TRADE SECRET DATA HAS BEEN EXCISED]** than revenues authorized for 2023, as shown in Table 3.

While the Department appreciates the above discussion comparing 2024 and 2023 forecasts, the Department requests Xcel, in reply comments, fully explain the difference in forecasted 2024 asset-based margins compared to Xcel's actual 2022 asset-based margins.

The Department will make its final recommendation regarding Xcel's forecasted 2024 asset-based margins charges after reviewing Xcel's reply comments.

X. OUTAGES

Xcel's forecasted 2024 outage rates and costs are provided in Part B, Attachments 5-7 and Part G, Workpaper 9. The Department reviews these items below, starting with outage rates and then turning to costs.

A. OUTAGE RATES

1. Planned (Unforced) Outage Rates

Part B, Attachment 5 provides planned outages for each unit. The Department reviewed the table in the attachment and concludes Xcel has reasonably explained its forecasted planned outages.

2. Unplanned (Forced) Outages Rate

a.) Base-Load Units Unplanned Outage Rates

Part B, Attachment 6 (page 1) provides forecasted unplanned outage rates for base-load units (natural gas combined cycle, coal, and nuclear). For these units, Xcel forecasts 2024 unplanned outage rates based on a five-year average.

However, for King and Sherco units 1 & 3,[25] Xcel **[TRADE SECRET DATA HAS BEEN EXCISED]** as shown in Part B, Attachment 6 and Part G, Workpaper 9. Presumably related to this method, the body of the petition (page 6) states unplanned outages for coal plants are forecasted based on "expected conditions of the units going forward, including managed decline as plants near retirement."

The Department requests Xcel explain and justify this method in reply comments. The Department will provide a recommendation on Xcel's proposed outage rates after reviewing Xcel's response.

b.) Peaking Units Unplanned Outage Rates

Part B, Attachment 6 (page 2) provides forecasted 2024 unplanned outage rates for peaking units (natural gas combustion turbines). For these forecasts, Xcel uses MISO's calculation of Equivalent Forced Outage Rate - Demand based on three years of history.[26]

B. OUTAGE COSTS

Part B, Attachment 7 provides 2024 forecasted planned and unplanned MWh and related replacement power costs.[27] To review Xcel's forecast for this item, the Department asked Xcel to provide its actual 2020-2022 planned and unplanned MWh and related replacement power costs.[28] Using Xcel's response, the Department provides Department Table 7 below, which shows a summary of Xcel's

[25] As stated on page 7 of the petition, Sherco Unit 2 is planned to retire in 2023.
[26] Petition, page 8.
[27] The outage costs in this attachment only pertain to base-load units.
[28] Department IR 6.

planned and unplanned MWh and related replacement power costs for 2024 forecast, 2023 forecast, and 2020 to 2022 actuals.

Department Table 7:
Forecasted vs. Actual Outages – Costs and Lost Energy

	Planned Outages			Unplanned Outages			Total Outages		
	Costs (000s)	GWh	$/MWh	Costs (000s)	GWh	$/MWh	Costs (000s)	GWh	$/MWh
	[TRADE SECRET DATA EXCISED								
2024 Forecast									
2023 Forecast									
									TRADE SECRET DATA EXCISED]
2020-22 Avg Actuals	$ 23,657	2,034	$11.63	$ 23,474	1,285	$18.27	$ 47,131	3,319	$14.20
2022 Actuals	$ 33,726	1,604	$21.03	$ 48,877	1,880	$26.00	$ 82,603	3,484	$23.71
2021 Actuals	$ 36,673	3,130	$11.72	$ 10,197	763	$13.36	$ 46,870	3,893	$12.04
2020 Actuals	$ 571	1,368	$0.42	$ 11,348	1,212	$9.36	$ 11,919	2,580	$4.62

Sources:
2024 Forecast: Petition, Part B, Attachment 7
2023 Forecast: Xcel's July 29, 2022 Reply Comments in Docket No. E002/AA-22-179, Attachment I
2020-22 Actuals: Xcel's response to Department IR 6, Attachment A

As shown in the table above, Xcel's forecasted total 2024 outage costs are **[TRADE SECRET DATA HAS BEEN EXCISED]** the 2020-2022 average, both overall and per MWh.

Except for the unplanned outage rates for certain power plants, the Department concludes Xcel has reasonably explained its forecasted 2024 outage costs. Assuming Xcel provides a reasonable explanation of this issue, the Department recommends the Commission accept Xcel's forecasted 2024 outage costs for purposes of establishing FCA rates in this proceeding, subject to true-up.

XI. WIND PRODUCTION

The Department reviews wind-production issues below, starting with overall production and then turning the wind curtailment specifically.

A. WIND PRODUCTION OVERALL

When Company-owned wind projects are approved, in general Xcel assumes certain average production levels over the life of the facilities, relative to the overall production capacity. The result is an assumed capacity factor. This assumption translates into assumed ratepayers benefits in terms of energy sold into the MISO market, which passes through the FCA. Therefore, it is important to assess Xcel's actual wind generation, to help understand if ratepayers are getting the benefits Xcel assumed to justify acquiring its wind assets.

To assess this issue, the Department asked Xcel to provide, for each wind facility included on Xcel's system (PPAs and Company-owned wind), the assumed capacity factor at the time the project or PPA was approved by the Commission, and then compare this assumption to the actual capacity factor for each wind facility for the years 2020, 2021, and 2022, and forecasted capacity factors for 2023 and 2024.[29] The result is below, which pertains to Company-owned wind facilities only. (Xcel states it does not have a compiled record of capacity factors for these PPAs assumed at the time of Commission approval.)

Department Table 8:
Wind Facility Capacity Factors: Actuals vs Assumed

Facility	Assumed by Xcel in Acquisition Petition	Actuals								Xcel FCA Forecasts			
		2020		2021		2022		2020-2022 Avg.		2023		2024	
	CF	CF	% of Assu.	CF	% of Assu.	CF	% of Assu.	CF	% of Assu.	CF	% of Assu.	CF	% of Assu.
	TRADE SECRET DATA EXCISED												
Blazing Star 1		43.4		45.9		49.4		46.2					
Blazing Star 2		n/a		46.1		47.4		46.8					
Borders		51.7		49.9		50.9		50.8					
Courtenay		41.4		43.4		46.7		43.8					
Crowned Ridge 2		n/a		49.9		50.4		50.2					
Dakota Range		n/a		n/a		43.0		43.0					
Foxtail		46.8		47.3		39.9		44.7					
Freeborn		n/a		37.1		41.3		39.2					
Grand Meadow		25.7		24.8		30.5		27.0					
Jeffers		n/a		46.0		54.9		50.5					
Lake Benton 2		52.1		50.9		52.0		51.7					
Mower		n/a		36.2		40.9		38.6					
Nobles		39.3		19.9		23.9		27.7					
Pleasant Valley		45.6		41.3		49.6		45.5					
Northern CV		n/a		46.6		52.9		49.8					
Northern RA		n/a		n/a		n/a		n/a					
Average													
	TRADE SECRET DATA EXCISED]												

As the table above shows, Xcel's actual wind generation has been **[TRADE SECRET DATA HAS BEEN EXCISED]** than assumed and Xcel forecasts this trend to continue in 2023 and 2024. The Department requests that Xcel, in reply comments, provide a discussion and explanation of this phenomenon.

The Department intends to continue monitoring actual production levels and, to the extent lower-than-assumed production continues to be an ongoing problem, will further investigate and make warranted recommendations, given that the Commission has stated in numerous wind acquisition approvals that it will hold Xcel accountable for assumed benefits that do not materialize.

[29] Department IR 11.

B. WIND CURTAILMENT

1. PPA Curtailment

The petition states the following beginning on page 9 regarding wind curtailments for PPAs:

> Purchased wind modeled in the PLEXOS simulation use hourly profiles for each individual project. Profiles of hourly renewable generation for individual MISO CP Nodes are developed based on historic weather data and exclude any prior historical curtailments. For new projects that do not yet have an annual generation profile, the profiles are based on turbine technology, plant design, and localized weather data. A white paper describing the wind profile forecast process in detail is provided with this filing as Part B, Attachment 10. Projects that MISO is allowed to curtail are modeled as curtailable projects. Projects for which curtailment is not allowed are modeled as non-curtailable projects.

Part G, Workpaper 8 of the petition provides Xcel's detailed calculations of its forecasted 2024 wind curtailment costs for PPAs.[30] Xcel's forecasted 2024 wind curtailment for PPAs totals **[TRADE SECRET DATA HAS BEEN EXCISED]** MWh which Xcel estimates per the PPAs costs ratepayers **[TRADE SECRET DATA HAS BEEN EXCISED]**. These estimates are **[TRADE SECRET DATA HAS BEEN EXCISED]** to the actual PPA curtailments in MWh and dollars for 2022, but **[TRADE SECRET DATA HAS BEEN EXCISED]** than 2023's forecast and **[TRADE SECRET DATA HAS BEEN EXCISED]** than 2020-2022 on average, as shown in the table below.[31]

Department Table 9:
Wind PPA Curtailments – PPAs with Compensable PTCs

		MWh	Cost	$/MWh
		TRADE SECRET DATA EXCISED		
2024	**Forecast**			
2023	**Forecast**			
				TRADE SECRET DATA EXCISED]
2022	**Actuals**	1,069,391	$ 49,540,011	$46.33
2021	**Actuals**	926,013	$ 42,062,446	$45.42
2020	**Actuals**	436,273	$ 19,612,973	$44.96
2020-2022 Avg.	**Actuals**	810,559	$ 37,071,810	$45.74

[30] As Xcel stated in response to Department IR 8, "[t]he wind curtailment calculations shown on the above-referenced attachments include wind curtailments for only the PPAs that have compensable PTCs. Other wind PPAs either have passed expiration of PTCs or will before 2024 or are wind PPAs that do not typically get curtailed."
[31] Xcel's response to Department IR 8.

The table above potentially indicates a generally **[TRADE SECRET DATA HAS BEEN EXCISED]** trend of wind curtailment for PPAs, which is consistent with Xcel's and the Department's historical analysis of ongoing congestion issues on MISO, as discussed at length in prior Xcel FCA dockets. In particular, this issue along with possible mitigation efforts was discussed extensively in the Company's March 1, 2022 true-up filing and the Department's responsive April 13, 2022 comments in Docket No. E002/AA-20-417. As such, the Department will not repeat these discussions here. However, the Department will continue to monitor Xcel's wind curtailment costs and related congestion costs in future AAA fillings.

Based on the above, the Department concludes Xcel's forecasted 2024 wind curtailment costs for PPAs appear reasonable. As a result, the Department recommends the Commission accept Xcel's forecasted 2024 wind curtailment costs for PPAs in this proceeding to set FCA rates for 2024, subject to true-up. The Department notes our recommendations in this docket should not be used in Xcel's future rate cases or other rate proceedings, where a more thorough review of wind curtailment costs may occur.

2. Owned-Wind Curtailment

The petition (page 6) states the following related to curtailments for Company-owned wind:

> NSP-owned wind generation inputs to the PLEXOS model use individual hourly profiles for each NSP-owned project. Profiles of hourly renewable generation for individual Midcontinent Independent System Operator (MISO) Commercial Pricing Nodes (CP Nodes) are developed based on historic weather data and exclude any prior historical curtailments. For new projects that do not yet have an annual generation profile, the profiles are based on turbine technology, plant design, and localized weather data. New projects are further adjusted to reflect warranty, preventative maintenance, daily faults, and other issues common with new wind farms in their first years of operation. Company-owned projects are modeled as curtailable projects since they can be curtailed by MISO. Curtailment of owned wind projects is forecast by the PLEXOS simulation. A white paper describing the wind profile forecast process in detail is provided with this filing as Part B, Attachment 10. There is no fuel price input for wind generation in the model because wind generation does not require any fuel purchases.

While the Department agrees there are no fuel costs or direct payments (like PPAs) associated with curtailment of Company-owned wind, the Department notes there can be a significant amount of curtailment and opportunity costs associated with these facilities. As shown in the table below, curtailments for Xcel's owned wind. And as with PPAs, curtailment from Company-owned winds cause ratepayers to pay more for electricity, since absent these curtailments the Company could have sold these MWh into the MISO market.

To review Xcel's projected 2024 curtailment for Company-owned wind, the Department asked Xcel to provide actual 2020, 2021, and 2022 MWh curtailed and 2024 forecasted MWh curtailed for Company-owned wind farms. Xcel's response is in the table below.

Table 10:
Owned Wind Curtailments in MWhs[32]

Facility	Actual			Forecast
	2020	2021	2022	2024
				[TRADE SECRET DATA EXCISED
Blazing Star 1	70	9,283	6,809	
Blazing Star 2	NA	13,949	3,661	
Border	5,677	226	9,836	
Community Wind North	NA	828	69	
Courtenay	4,145	8,116	4,868	
Crowned Ridge II	0	51,057	77,472	
Dakota Range 1&2	NA	NA	64,410	
Foxtail	13,523	43,725	117,057	
Freeborn	NA	23,522	83,661	
Grand Meadow	71,210	63,616	13,849	
Jeffers	NA	9,555	2,183	
Lake Benton II (Buffalo Ridge / Chanarambie)	474	17,560	3,810	
Mower County	NA	8,826	3,240	
Northern CV	NA	NA	NA	
Northern RA	NA	NA	NA	
Nobles	6,625	313,377	223,684	
Pleasant Valley	8,935	42,356	2,417	
Total	**110,659**	**605,996**	**617,026**	
				TRADE SECRET DATA EXCISED]

As shown the table above, Xcel's wind curtailment MWh for Company-owned wind farms has been on average increasing over the years, presumably due to the addition of new wind farms coupled with ongoing congestion. This issue along with possible mitigation efforts was discussed extensively in the Company's March 1, 2022 true-up filing and the Department's responsive April 13, 2022 comments in Docket No. E002/AA-20-417. As such, the Department will not repeat these discussions here. However, as stated above, the Department emphasizes that congestion on Company-owned wind farms has a real cost due to the lost opportunity to sell the energy into MISO. For example, at 2022's 617,026 MWh curtailed on owned wind farms, assuming a $20/MWh sale price equates to FCA rates being $12 million higher than they would otherwise. Using this same unit cost assumption for 2024's forecast results in a forecasted cost to ratepayers of **[TRADE SECRET DATA HAS BEEN EXCISED]**. While these estimates are solely hypothetical given the sale price absent congestion is unknown, they nonetheless serve to illustrate the significant costs associated with congestion on Xcel's owned wind facilities.

[32] Xcel's response to Department IR 8.

The Department also notes the significant **[TRADE SECRET DATA HAS BEEN EXCISED]** in forecasted 2024 curtailment MWh for some Company-owned wind farms compared to 2020-2022 actuals. For example, as shown above in Table 10, Xcel's forecasted 2024 wind curtailments for its Blazing Star 1 wind farm has increased from actuals of 9,283 MWh in 2021 and 6,809 MWh in 2022 to a forecasted amount of **[TRADE SECRET DATA HAS BEEN EXCISED]** in 2024. The Department notes similar changes for Blazing Star 2, Borders, Courtenay, and Pleasant Valley wind farms. The Department recommends Xcel explain these large variations in forecasted 2024 curtailments over 2021 and 2022 actuals in reply comments. The Department will make its final recommendation regarding Xcel's forecasted 2024 wind curtailments for Company-owned facilities after reviewing Xcel's reply comments.

XII. MINNESOTA-ONLY FCA COSTS

As shown in Department Table 3 above, the 2024 FCA forecasts contains two categories which are only charged to Minnesota ratepayers: Above Market Costs for Community Solar Gardens, and Biomass Buyout Costs. The Department reviews these two items below.

A. COMMUNITY SOLAR GARDENS – ABOVE MARKET COSTS

In its September 17, 2014 Order in Docket No. E002/M-13-867, the Commission approved Xcel's proposal to recover CSG program costs, including customer bill credits, additional Renewable Energy Credits (RECs), and unsubscribed energy, through the FCA mechanism.

On page 9 of the petition, Xcel provided a detailed discussion on how CSG costs are modeled in PLEXOS and how CSG-AMC are reflected in its forecasted 2024 FCA, stating:

> Each solar PPA is modeled in the PLEXOS simulation with hourly profiles for each project. These profiles are based on historical results from projects with operational data. A white paper describing the solar profile forecast process in detail is provided with this filing as Part B, Attachment 10. The price for each solar PPA is based on the terms of each contract.
>
> The Solar*Rewards Community program is modeled in the PLEXOS simulation and includes expectations of future growth based on current applications for gardens seeking to participate in the program.[3] To forecast 2024 capacity for community solar projects, we identify current projects to anticipate in-service dates and estimate project completion (in capacity) by month and year. We also forecast additional applications based on a historical average. This helps account for our future pipeline of projects. Capacity assumptions are then modeled in PLEXOS to determine MWh and average dollars per kWh. The program is modeled as one entity within PLEXOS rather than individually by garden in consideration of simulation run times. The assumed price for the program is a weighted rate based on an escalation of the historical Applicable Retail Rate (ARR) and the rates of different vintages of Value of Solar (VOS). Projected prices for future projects are calculated based on VOS vintage and anticipated

> completion date. The market cost of energy from the solar gardens generation is determined based on the assumed hourly Locational Marginal Price (LMP) in the simulation. This cost is shared with all jurisdictions in the NSP system. The cost of the program above market is direct assigned to Minnesota customers. Supporting documentation for solar gardens assumptions are included with this filing as Part B, Attachment 12 and Part G, Workpapers 6 and 7.
>
> [3] Recovery was approved by Commission Order on September 17, 2014 in Docket No. E002/M-13-867.

Xcel then added the following on page 15:

> The 2024 test year includes projected increases in the Solar*Rewards Community program. This program is forecast to contribute $42 million of additional cost in 2024 with $58 million direct assigned to the Minnesota jurisdiction in above market costs as shown in Table 3. Above market costs increase for the 2024 forecast because LMP prices for 2024 are projected to be 30 percent lower than those authorized in 2023. This results in less of the program costs being assigned to the NSP jurisdictions as market-cost based energy and more being direct assigned to Minnesota as above market costs. The Solar*Rewards Community program results in an annual FCA rate for Minnesota customers that is $9.20/MWh or 24 percent higher than the rate would be without this program.

The Department reviewed Xcel's CSG-AMC calculations. Based on our review the Department concludes Xcel's forecasted 2024 forecasted CSG-AMC costs appear to be reasonable and recommends the Commission accept them for the purpose of setting initial FCA rates in this proceeding, subject to subsequent true-up.

B. BIOMASS BUYOUT COSTS

Xcel's forecasted 2024 Minnesota FCA costs include biomass buyout costs related to the early termination of biomass PPAs in accordance with the Commission's Orders in Docket Nos. E002/M-17-530, E002/M-17-551, and E002/M-17-531.

Xcel discussed biomass buyout costs and calculations on pages 11 and 15. Xcel forecasts biomass buyout costs to decrease by **[TRADE SECRET DATA HAS BEEN EXCISED]** due to the Laurentian PPA buyout ending in 2023. The only remaining buyout costs, for 2024, is for the Benson PPA. Part G, Workpaper 5 provides Xcel's forecasted Benson buyout costs on a monthly basis.

Based on our review, the Department concludes Xcel's forecasted 2024 biomass buyout costs appear reasonable. As a result, the Department recommends the Commission accept Xcel's forecasted 2024 biomass buyout costs for the purpose of setting initial FCA rates in this proceeding, subject to subsequent true-up.

XIII. MISO PLANNING RESOURCE AUCTION REVENUES

In response to Department IR 9, Xcel confirmed the Company is continuing to incorporate MISO Planning Resource Auction revenues into base rates, not the FCA.

XIV. JURISDICTIONAL ALLOCATION

As Xcel notes in Part B, Attachment 13:

> … The NSP System serves five jurisdictions. Minnesota, North Dakota and South Dakota are served by Northern States Power Company (NSPM). Wisconsin and Michigan are served by Northern States Power Company, a Wisconsin corporation (NSPW). The NSPM and NSPW Systems operate as an integrated system.

For costs not assigned directly to Minnesota, the petition proposes to update its jurisdictional allocator.[33] Xcel describes its proposed change as follows:

> The Company proposes to allocate fuel clause costs to Minnesota using the FERC-approved Interchange Agreement tariff, which governs cost allocation between our NSP-Minnesota and NSP-Wisconsin operating companies. The Interchange Agreement is a formula rate which assigns charges between these two operating companies for costs related to the integrated electric system, including the fuel and purchased power costs that are recovered through the fuel clause. Previously we have used a sales allocator to assign costs to the Minnesota jurisdiction for the fuel clause calculation, which can produce a different level of costs assigned to Minnesota than the Interchange Agreement actually assigns under the tariff. In this filing, we have assigned costs to the NSP-Minnesota operating company through the application of the Interchange Agreement energy allocator. We then allocated the NSP-Minnesota fuel costs to the Minnesota jurisdiction using the sales allocator. This allows customers and the Company to remain whole on prudently incurred fuel cost recovery, as Minnesota customers would pay for their allocation of the fuel costs assigned to the NSPM operating company.

Based on the initial information provide, Xcel's proposal appears reasonable in theory for the purpose of the FCA. However, to make a full assessment of the reasonableness of Xcel's proposal, the Department requests Xcel provide the following in reply comments:

(a) a comparison, for the 2024 forecast, 2023 forecast, and 2020-2022 actuals, of the percent of costs allocated to the Minnesota jurisdiction, using the proposed method versus the old method, with supporting calculations;

[33] Xcel's customer class allocation method would stay the same.

(b) a comparison of Xcel's proposed Minnesota FCA jurisdictional allocation method to jurisdictional allocators approved for base rates and in other riders in Minnesota; and
(c) a comparison of Xcel's proposed Minnesota FCA jurisdictional allocation method to FCA jurisdictional allocators approved for base rates and in other riders in other states, including a discussion of how Xcel's methodologies avoid double recovery across jurisdictions.

The Department also requests Xcel discuss why it believes its proposed allocator is reasonable given its response to (a), (b), and (c). The Department will provide final comments on Xcel's proposed jurisdictional allocator after reviewing Xcel's reply comments.

XV. RECOMMENDATIONS

Compliance Items:
The Department recommends the Commission accept Xcel's compliance with reporting requirements for the instant petition relating to its 2024 FCA forecast.

Sales Forecast:
The Department recommends the Commission accept Xcel's 2024 forecasted sales in this proceeding, subject to subsequent true-up. However, the Department requests Xcel explain, in reply comments, the key drivers of sales being lower than historical averages and system generation being higher.

Company Owned Generation:
Based on our review and the explanations Xcel provided, the Department concludes Xcel's forecasted 2024 fuel costs for Company-owned generating units appears reasonable. As a result, the Department recommends the Commission accept Xcel's forecasted 2024 fuel costs for company-owned generation for the purpose of setting initial 2024 FCA rates in this proceeding, subject to subsequent true-up.

Long-Term PPAs:
Based on our review and the explanations Xcel provided, the Department concludes the Company's forecasted 2024 long-term purchased energy costs appear reasonable. As a result, the Department recommends the Commission accept Xcel's forecasted 2024 long-term purchased energy costs for the purpose of setting initial 2024 FCA rates in this proceeding, subject to subsequent true-up. However, the Department requests Xcel explain, in reply comments, the key drivers behind the **[TRADE SECRET DATA HAS BEEN EXCISED]** relative to historical levels.

MISO Energy Market (MISO Day 2) and Ancillary Services Market (ASM or MISO Day 3):
Based on our review and the explanations Xcel provided, the Department concludes the Company's forecasted 2024 MISO Day 2 and Day 3 charges appear reasonable. As a result, the Department recommends the Commission accept Xcel's forecasted 2024 MISO Day 2 and Day 3 charges for the purpose of setting initial 2024 FCA rates in this proceeding, subject to subsequent true-up.

Asset-Based Margins:
While the Department appreciates Xcel's discussion comparing 2024 and 2023 forecasts related to asset-based margins, the Department requests Xcel, in reply comments, fully explain the difference in forecasted 2024 asset-based margins compared to Xcel's actual 2022 asset-based margins. The Department will make its final recommendation regarding Xcel's forecasted 2024 asset-based margins charges after reviewing Xcel's reply comments.

Outage Costs:
The Department requests Xcel, in reply comments explain and justify the methodology used to calculated unplanned outages for King and Sherco 1&3. The Department will provide a recommendation on Xcel's proposed outage rates after reviewing Xcel's response.

Except for the unplanned outage rates for certain power plants, the Department concludes Xcel has reasonably explained its forecasted 2024 outage costs. Assuming Xcel provides a reasonable explanation of this issue, the Department recommends the Commission accept Xcel's forecasted 2024 outage costs for purposes of establishing FCA rates in this proceeding, subject to true-up.

Wind Production:
The Department requests that Xcel, in reply comments, provide a discussion and explanation of actual wind capacity factors relative to Xcel's assumptions when they proposed the projects be acquired. The Department intends to continue monitoring actual production levels and, to the extent lower-than-assumed production continues to be an ongoing problem, will further investigate and make warranted recommendations, given that the Commission has stated in numerous wind acquisition approvals that it will hold Xcel accountable for assumed benefits that do not materialize.

Regarding curtailment, the Department concludes Xcel's forecasted 2024 wind curtailment costs for PPAs appear reasonable. As a result, the Department recommends the Commission accept Xcel's forecasted 2024 wind curtailment costs for PPAs in this proceeding to set FCA rates for 2024, subject to true-up.

With respect to Xcel's forecasted 2024 wind curtailment costs for Company-owned wind, the Department recommends that Xcel, in reply comments, provide an explanation for the significant change in forecasted 2024 curtailments over 2021 and 2022 actuals for Blazing Star 1, Blazing Star 2, Borders, Courtenay, and Please Valley wind farms. The Department will make its final recommendation regarding Xcel's forecasted 2024 wind curtailments for Company-owned facilities after reviewing Xcel's reply comments.

Minnesota-Only FCA Costs (Community Solar Gardens – Above Market Costs and Biomass Buyout Costs):
Based on our review the Department concludes that Xcel's forecasted 2024 CSG – AMC appears to be reasonable and recommends the Commission accept them for the purpose of setting initial 2024 FCA rates in this proceeding, subject to subsequent true-up.

Based on our review, the Department concludes Xcel's forecasted 2024 biomass buyout costs appear reasonable. As a result, the Department recommends the Commission accept Xcel's forecasted 2024 biomass buyout costs for the purpose of setting initial 2024 FCA rates in this proceeding, subject to subsequent true-up.

Jurisdictional Allocation:

The Department requests Xcel provide the following in reply comments:

(a) a comparison, for the 2024 forecast, 2023 forecast, and 2020-2022 actuals, of the percent of costs allocated to the Minnesota jurisdiction, using the proposed method versus the old method, with supporting calculations;
(b) a comparison of Xcel's proposed Minnesota FCA jurisdictional allocation method to jurisdictional allocators approved for base rates and in other riders in Minnesota; and
(c) a comparison of Xcel's proposed Minnesota FCA jurisdictional allocation method to FCA jurisdictional allocators approved for base rates and in other riders in other states, including a discussion of how Xcel's methodologies avoid double recovery across jurisdictions.

The Department also requests Xcel discuss why it believes its proposed allocator is reasonable given its response to (a), (b), and (c). The Department will provide final comments on Xcel's proposed jurisdictional allocator after reviewing Xcel's reply comments.

☐ **Not Public Document – Not For Public Disclosure**
☒ **Public Document – Not Public Data Has Been Excised**
☐ **Public Document**

Xcel Energy		Information Request No. Informal 1
Docket No.:	E002/AA-23-153	
Response To:	Minnesota Department of Commerce	
Requestor:	Stephen Collins	
Date Received:	June 16, 2023	

Question:

a. Please update Attachment A to the Company's response to DOC IR 2 to provide lines 37-73 from Part A, Attachment 1 of the Petition.
b. Please update Attachment A to the Company's response to DOC IR 2 to provide systemwide sales (lines 37-44 as provided in the 2023 forecast Petition in Docket No. E002/AA-22-179).

Response:

a. Please see Attachment A, page 1 to this response.
b. Please see Attachment A, page 2 to this response.

Attachment A to this response contains information the Company considers to be trade secret data as defined by Minn. Stat. § 13.37(1)(b). The information derives independent economic value from not being generally known or readily ascertainable by others who could obtain a financial advantage from its use. Thus, Xcel Energy considers this non-public data.

Preparer:	John Chow
Title:	Pricing Consultant
Department:	NSPM Regulatory
Telephone:	612-330-7588
Date:	June 19, 2023

PUBLIC DOCUMENT
NOT-PUBLIC DATA HAS BEEN EXCISED

Northern States Power Company
Electric Utility - State of Minnesota
2024 Forecast, 2020-2022 Actual Fuel, Purchased Power and Other Costs

Docket No. E002/AA-23-153
DOC Informal IR 1
Attachment A - Page 1 of 4

Line #		2024			2020			2021			2022			2020 - 2022 Average		
1	*Costs in $1,000's*	Costs	GWh	$/MWh	Costs	GWh	$/MWh	Costs	GWh	$/MWh	Costs	GWh	$/MWh	Costs	GWh	$/MWh
2																
3	**Own Generation**	*Protected Data is shaded.*														
4	Fossil Fuel	**[PROTECTED DATA BEGINS**														
5	Coal				$182,474	8,527.6	$21.40	$197,754	9,265.0	$21.34	$242,848	9,523.9	$25.50	$207,692	9,105.5	$22.81
6	Wood/RDF				$9,013	553.5	$16.28	$9,155	533.8	$17.15	$9,781	513.5	$19.05	$9,316	533.6	$17.46
7	Natural Gas CC				$120,536	6,121.3	$19.69	$195,504	6,100.6	$32.05	$217,122	3,852.6	$56.36	$177,721	5,358.2	$33.17
8	Natural Gas & Oil CT				$18,924	715.4	$26.45	$49,824	842.6	$59.13	$46,559	528.5	$88.10	$38,436	695.5	$55.26
9	Subtotal				$330,948	15,917.8	$20.79	$452,237	16,742.1	$27.01	$516,310	14,418.5	$35.81	$433,165	15,692.8	$27.60
10																
11	Hydro				$0	1,244.5	$0.00	$0	861.1	$0.00	$0	848.0	$0.00	$0	984.5	$0.00
12	Solar															
13	Wind				$0	5,001.4	$0.00	$0	7,264.3	$0.00	$0	9,361.3	$0.00	$0	7,209.0	$0.00
14																
15	Nuclear Fuel				$119,986	14,677.3	$8.17	$111,253	14,068.5	$7.91	$117,174	14,696.2	$7.97	$116,138	14,480.7	$8.02
16																
17	**Purchased Energy**															
18	LT Purchased Energy (Gas)				$79,565	3,716.4	$21.41	$146,232	4,032.0	$36.27	$155,586	2,494.9	$62.36	$127,128	3,414.4	$37.23
19	LT Purchased Energy (Solar)				$41,490	589.1	$70.43	$42,905	608.9	$70.47	$48,633	787.9	$61.73	$44,343	661.9	$66.99
20	Community Solar*Gardens (CSG)	$329,263	2,311.9	$142.42	$151,466	1,199.6	$126.27	$183,652	1,455.6	$126.17	$184,030	1,403.5	$131.12	$173,049	1,352.9	$127.91
21	LT Purchased Energy (Wind)				$201,803	5,538.8	$36.43	$194,087	5,007.6	$38.76	$244,613	6,470.0	$37.81	$213,501	5,672.1	$37.64
22	LT Purchased Energy (Other)				$136,985	1,780.3	$76.95	$176,450	2,138.6	$82.51	$190,665	2,219.6	$85.90	$168,033	2,046.1	$82.12
23	ST Market Purchases				$108,791	2,507.1	$43.39	$85,141	2,085.8	$40.82	$146,773	2,770.6	$52.98	$113,568	2,454.5	$46.27
24	MISO Market Charges							$229,886			$239,474					
25	Subtotal				$720,100	15,331.2	$46.97	$1,058,353	15,328.4	$69.05	$1,209,774	16,146.5	$74.92	$996,076	15,602.0	$63.84
26																
27	**Total NSP System Costs**				$1,171,034	52,172.2	$22.45	$1,621,843	54,264.3	$29.89	$1,843,257	55,470.5	$33.23	$1,545,378	53,969.0	$28.63
28																
29	**Less Sales Revenue**				($200,170)	(11,486.4)	$17.43	($437,200)	(12,659.8)	$34.53	($564,368)	(13,721.3)	$41.13	($400,579)	(12,622.5)	$31.74
30	**Less Solar Gardens - Above Market Cost**	(247,045)			($130,594)			($110,745)			($99,903)			($113,747)		
31	**Less Renewable*Connect Pilot**				($6,139)	(182.5)	$33.63	($6,190)	(177.8)	$34.82	($6,291)	(183.2)	$34.33	($6,207)	(181.2)	$34.26
32	**Less Renewable*Connect Flex (MTM)**				($9,474)	(394.5)	$24.02	($12,169)	(440.6)	$27.62	($18,190)	(493.3)	$36.87	($13,278)	(442.8)	$29.99
33	**Less Renewable*Connect LT**															
34																
35	**NSP Net System Costs Excluded CSG Above Market & Renewable*Connect Costs**			$25.90	$824,657	40,108.8	$20.56	$1,055,539	40,986.2	$25.75	$1,154,506	41,072.7	$28.11	$1,011,567	40,722.5	$24.84
36																
37																
38	**Interchange Agreement Energy Req Allocator**	82.355%														
39																
40	**NSPM System Costs Excluded CSG Above Market & Renewable*Connect Costs**				**NSP System MWh Sales**											
41																
42																
43	**NSPM System Calendar Month MWh Sales**				39,033,390			39,923,939			40,363,073			39,773,467		
44																
45	**Less Renewable*Connect Pilot MWh Sales**				(182,541)			(177,779)			(183,231)			(181,184)		
46	**Less Renewable*Connect MTM MWh Sales**				(394,474)			(440,556)			(493,276)			(442,769)		
47	**Less Renewable*Connect LT MWh Sales**															
48																
49	**Net NSPM System Calendar Month MWh Sales**	31,199,824			38,456,375			39,305,604			39,686,566			39,149,515		
50																
51	**NSPM System Cost in cents/kWh**				$2.144			$2.685			$2.909			$2.579		
52																
53	**Minnesota Jurisdiction MWh Sales**				28,141,221			28,814,204			28,994,856			28,650,094		
54																
55	**Less Renewable*Connect Pilot MWh Sales**				(182,541)			(177,779)			(183,231)			(181,184)		
56	**Less Renewable*Connect MTM MWh Sales**				(394,474)			(440,556)			(493,276)			(442,769)		
57	**Less Renewable*Connect LT MWh Sales**															
58																
59	**Net MN MWh Sales**	26,842,355			27,564,206			28,195,869			28,318,349			28,026,141		
60																
61	**MN Fuel Cost**				$591,397			$758,124			$824,270			$724,597		
62	**Solar Gardens - Above Market Cost**	$247,045			$130,420			$110,646			$99,883			$113,650		
63	**Laurentian Buyout costs**				$13,134			$13,192			$13,062			$13,129		
64	**Pine Bend Buyout Cost**				$113			$0			$0			$38		
65	**Benson Buyout Cost**				$10,452			$10,249			$9,844			$10,182		
66					$777			$1,834			$3,162			$1,924		
67	**Forecast MN FCA Costs**	$1,030,253			$746,292			$894,044			$950,221			$863,519		
68																
69																
70	**Forecast MN FCA Cost in cents/kWh**	**3.838**			**2.707**			**3.171**			**3.355**			**3.078**		
71																
72																
73	**Forecast MN FCA Cost in $/MWh**	$38.38			$27.07			$31.71			$33.55			$30.78		

PROTECTED DATA ENDS]

Data Source:

2024 Part A, Attachment 1 Page 1 of 3, May 1, 2023 Petition, Docket No. E002/AA-23-153
Part A, Attachment 2 Page 1 of 1, May 1, 2023 Petition, Docket No. E002/AA-23-153
Part A, Attachment 3 Page 1 of 1, May 1, 2023 Petition, Docket No. E002/AA-23-153
2020 Part A, Attachment 2 Page 1 of 1, March 1, 2021 True-Up Report, Docket No. E002/AA-19-293
Part A, Attachment 6 Page 1 of 1, March 1, 2021 True-Up Report, Docket No. E002/AA-19-293
Part A, Attachment 7 Page 1 of 1, March 1, 2021 True-Up Report, Docket No. E002/AA-19-293
2021 Part A, Attachment 2 Page 1 of 1, March 1, 2022 True-Up Report, Docket No. E002/AA-20-417
Part A, Attachment 6 Page 1 of 1, March 1, 2022 True-Up Report, Docket No. E002/AA-20-417
Part A, Attachment 7 Page 1 of 1, March 1, 2022 True-Up Report, Docket No. E002/AA-20-417
2022 Part A, Attachment 2 Page 1 of 1, March 1, 2023 True-Up Report, Docket No. E002/AA-22-179
Part A, Attachment 6 Page 1 of 1, March 1, 2023 True-Up Report, Docket No. E002/AA-22-179
Part A, Attachment 7 Page 1 of 1, March 1, 2023 True-Up Report, Docket No. E002/AA-22-179

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Northern States Power Company
Electric Utility - State of Minnesota
2024 Forecast, 2020-2022 Actual Fuel, Purchased Power and Other Costs

Docket No. E002/AA-23-153
DOC Informal IR 1
Attachment A - Page 2 of 4

Line #		2024			2020			2021			2022			2020 - 2022 Average		
1	*Costs in $1,000's*	Costs	GWh	$/MWh	Costs	GWh	$/MWh	Costs	GWh	$/MWh	Costs	GWh	$/MWh	Costs	GWh	$/MWh
2																
3	**Own Generation**	*Protected Data is shaded.*														
4	Fossil Fuel	[PROTECTED DATA BEGINS														
5	Coal				$182,474	8,527.6	$21.40	$197,754	9,265.0	$21.34	$242,848	9,523.9	$25.50	$207,692	9,105.5	$22.81
6	Wood/RDF				$9,013	553.5	$16.28	$9,155	533.8	$17.15	$9,781	513.5	$19.05	$9,316	533.6	$17.46
7	Natural Gas CC				$120,536	6,121.3	$19.69	$195,504	6,100.6	$32.05	$217,122	3,852.6	$56.36	$177,721	5,358.2	$33.17
8	Natural Gas & Oil CT				$18,924	715.4	$26.45	$49,824	842.6	$59.13	$46,559	528.5	$88.10	$38,436	695.5	$55.26
9	Subtotal				$330,948	15,917.8	$20.79	$452,237	16,742.1	$27.01	$516,310	14,418.5	$35.81	$433,165	15,692.8	$27.60
10																
11	Hydro				$0	1,244.5	$0.00	$0	861.1	$0.00	$0	848.0	$0.00	$0	984.5	$0.00
12	Solar															
13	Wind				$0	5,001.4	$0.00	$0	7,264.3	$0.00	$0	9,361.3	$0.00	$0	7,209.0	$0.00
14																
15	Nuclear Fuel				$119,986	14,677.3	$8.17	$111,253	14,068.5	$7.91	$117,174	14,696.2	$7.97	$116,138	14,480.7	$8.02
16																
17	**Purchased Energy**															
18	LT Purchased Energy (Gas)				$79,565	3,716.4	$21.41	$146,232	4,032.0	$36.27	$155,586	2,494.9	$62.36	$127,128	3,414.4	$37.23
19	LT Purchased Energy (Solar)				$41,490	589.1	$70.43	$42,905	608.9	$70.47	$48,633	787.9	$61.73	$44,343	661.9	$66.99
20	Community Solar*Gardens (CSG)	$329,263	2,311.9	$142.42	$151,466	1,199.6	$126.27	$183,652	1,455.6	$126.17	$184,030	1,403.5	$131.12	$173,049	1,352.9	$127.91
21	LT Purchased Energy (Wind)				$201,803	5,538.8	$36.43	$194,087	5,007.6	$38.76	$244,613	6,470.0	$37.81	$213,501	5,672.1	$37.64
22	LT Purchased Energy (Other)				$136,985	1,780.3	$76.95	$176,450	2,138.6	$82.51	$190,665	2,219.6	$85.90	$168,033	2,046.1	$82.12
23	ST Market Purchases				$108,791	2,507.1	$43.39	$85,141	2,085.8	$40.82	$146,773	2,770.6	$52.98	$113,568	2,454.5	$46.27
24	MISO Market Charges							$229,886			$239,474					
25	Subtotal				$720,100	15,331.2	$46.97	$1,058,353	15,328.4	$69.05	$1,209,774	16,146.5	$74.92	$996,076	15,602.0	$63.84
26																
27	**Total NSP System Costs**				$1,171,034	52,172.2	$22.45	$1,621,843	54,264.3	$29.89	$1,843,257	55,470.5	$33.23	$1,545,378	53,969.0	$28.63
28																
29	**Less Sales Revenue**				($200,170)	(11,486.4)	$17.43	($437,200)	(12,659.8)	$34.53	($564,368)	(13,721.3)	$41.13	($400,579)	(12,622.5)	$31.74
30	**Less Solar Gardens - Above Market Cost**	(247,045)			($130,594)			($110,745)			($99,903)			($113,747)		
31	**Less Renewable*Connect Pilot**				($6,139)	(182.5)	$33.63	($6,190)	(177.8)	$34.82	($6,291)	(183.2)	$34.33	($6,207)	(181.2)	$34.26
32	**Less Renewable*Connect Flex (MTM)**				($9,474)	(394.5)	$24.02	($12,169)	(440.6)	$27.62	($18,190)	(493.3)	$36.87	($13,278)	(442.8)	$29.99
33	**Less Renewable*Connect LT**															
34																
35	**NSP Net System Costs Excluded CSG Above Market**			$25.90	$824,657	40,108.8	$20.56	$1,055,539	40,986.2	$25.75	$1,154,506	41,072.7	$28.11	$1,011,567	40,722.5	$24.84
36	**& Renewable*Connect Costs**															
37																
38																
39																
40																
41	**Net System Sales**															
42																
43	**Calendar Month MWh Sales**				39,033,390			39,923,939			40,363,073			39,773,467		
44																
45	**Less Renewable*Connect Pilot MWh Sales**				(182,541)			(177,779)			(183,231)			(181,184)		
46	**Less Renewable*Connect MTM MWh Sales**				(394,474)			(440,556)			(493,276)			(442,769)		
47	**Less Renewable*Connect LT MWh Sales**															
48																
49	**Net NSP System Calendar Month MWh Sales**	38,197,851			38,456,375			39,305,604			39,686,566			39,149,515		
50																
51	**NSP System Cost in cents/kWh**				$2.144			$2.685			$2.909			$2.579		
52																
53	**Minnesota Jurisdiction MWh Sales**				28,141,221			28,814,204			28,994,856			28,650,094		
54																
55	**Less Renewable*Connect Pilot MWh Sales**				(182,541)			(177,779)			(183,231)			(181,184)		
56	**Less Renewable*Connect MTM MWh Sales**				(394,474)			(440,556)			(493,276)			(442,769)		
57	**Less Renewable*Connect LT MWh Sales**															
58																
59	**Net MN MWh Sales**	26,842,355			27,564,206			28,195,869			28,318,349			28,026,141		
60																
61	**MN Fuel Cost**				$591,397			$758,124			$824,270			$724,597		
62	**Solar Gardens - Above Market Cost**	$247,045			$130,420			$110,646			$99,883			$113,650		
63	**Laurentian Buyout costs**				$13,134			$13,192			$13,062			$13,129		
64	**Pine Bend Buyout Cost**				$113			$0			$0			$38		
65	**Benson Buyout Cost**				$10,452			$10,249			$9,844			$10,182		
66	**SES Exemption Recovery & Saver's Switch Adj**				$777			$1,834			$3,162			$1,924		
67	**Forecast MN FCA Costs**	$1,024,167			$746,292			$894,044			$950,221			$863,519		
68																
69																
70	**Forecast MN FCA Cost in cents/kWh**	**3.815**			**2.707**			**3.171**			**3.355**			**3.078**		
71																
72																
73	**Forecast MN FCA Cost in $/MWh**	$38.15			$27.07			$31.71			$33.55			$30.78		

PROTECTED DATA ENDS]

Data Source:

2024 Part A, Attachment 1 Page 1 of 3, May 1, 2023 Petition, Docket No. E002/AA-23-153
Part A, Attachment 2 Page 1 of 1, May 1, 2023 Petition, Docket No. E002/AA-23-153
Part A, Attachment 3 Page 1 of 1, May 1, 2023 Petition, Docket No. E002/AA-23-153
2020 Part A, Attachment 2 Page 1 of 1, March 1, 2021 True-Up Report, Docket No. E002/AA-19-293
Part A, Attachment 6 Page 1 of 1, March 1, 2021 True-Up Report, Docket No. E002/AA-19-293
Part A, Attachment 7 Page 1 of 1, March 1, 2021 True-Up Report, Docket No. E002/AA-19-293
2021 Part A, Attachment 2 Page 1 of 1, March 1, 2022 True-Up Report, Docket No. E002/AA-20-417
Part A, Attachment 6 Page 1 of 1, March 1, 2022 True-Up Report, Docket No. E002/AA-20-417
Part A, Attachment 7 Page 1 of 1, March 1, 2022 True-Up Report, Docket No. E002/AA-20-417
2022 Part A, Attachment 2 Page 1 of 1, March 1, 2023 True-Up Report, Docket No. E002/AA-22-179
Part A, Attachment 6 Page 1 of 1, March 1, 2023 True-Up Report, Docket No. E002/AA-22-179
Part A, Attachment 7 Page 1 of 1, March 1, 2023 True-Up Report, Docket No. E002/AA-22-179

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Northern States Power Company
Electric Utility - State of Minnesota
2024 Forecast Fuel, Purchased Power and Other Costs

Line #		2024			2022			
1	*Costs in $1,000's*	**Costs**	**GWh**	**$/MWh**	**Costs**	**GWh**	**$/MWh**	
2								
3	**Own Generation**	*Protected Data is shaded.*						2022 Delta and key drivers
4	Fossil Fuel	**[PROTECTED DATA BEGINS**						**[PROTECTED DATA BEGINS**
5	Coal				$242,848	9,523.9	$25.50	
6	Wood/RDF				$9,781	513.5	$19.05	
7	Natural Gas CC				$217,122	3,852.6	$56.36	
8	Natural Gas & Oil CT				$46,559	528.5	$88.10	
9	Subtotal				$516,310	14,418.5	$35.81	
10								
11	Hydro				$0	848.0	$0.00	
12	Solar							
13	Wind				$0	9,361.3	$0.00	
14								
15	Nuclear Fuel				$117,174	14,696.2	$7.97	
16								
17	**Purchased Energy**							
18	LT Purchased Energy (Gas)				$155,586	2,494.9	$62.36	
19	LT Purchased Energy (Solar)				$48,633	787.9	$61.73	
20	Community Solar*Gardens (CSG)	$329,263	2,311.9	$142.42	$184,030	1,403.5	$131.12	
21	LT Purchased Energy (Wind)				$244,613	6,470.0	$37.81	
22	LT Purchased Energy (Other)				$190,665	2,219.6	$85.90	
23	ST Market Purchases				$146,773	2,770.6	$52.98	
24	MISO Market Charges				239474.0812			
25	Subtotal				$1,209,774	16,146.5	$74.92	
26								
27	**Total NSP System Costs**				$1,843,257	55,470.5	$33.23	
28								
29	**Less Sales Revenue**				($564,368)	(13,721.3)	$41.13	
30	**Less Solar Gardens - Above Market Cost**	(247,045)			($99,903)			
31	**Less Renewable*Connect Pilot**				($6,291)	(183.2)	$34.33	
32	**Less Renewable*Connect Flex (MTM)**				($18,190)	(493.3)	$36.87	
33	**Less Renewable*Connect LT**							
34								
35	**NSP Net System Costs Excluded CSG Above Market**			$25.90	$1,154,506	41,072.7	$28.11	
36	**& Renewable*Connect Costs**	**PROTECTED DATA ENDS]**						**PROTECTED DATA ENDS]**
37								

PUBLIC DOCUMENT
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Northern States Power Company
Electric Utility - State of Minnesota
2024 Forecast Fuel, Purchased Power and Other Costs

Line #		2024			2020 - 2022 Average			
1	*Costs in $1,000's*	**Costs**	**GWh**	**$/MWh**	**Costs**	**GWh**	**$/MWh**	
2								
3	**Own Generation**	*Protected Data is shaded.*						3 Yr Avg Delta and key drivers
4	Fossil Fuel	**[PROTECTED DATA BEGINS**						**[PROTECTED DATA BEGINS**
5	Coal				$207,692	9,105.5	$22.81	
6	Wood/RDF				$9,316	533.6	$17.46	
7	Natural Gas CC				$177,721	5,358.2	$33.17	
8	Natural Gas & Oil CT				$38,436	695.5	$55.26	
9	Subtotal				$433,165	15,692.8	$27.60	
10								
11	Hydro				$0	984.5	$0.00	
12	Solar							
13	Wind				$0	7,209.0	$0.00	
14								
15	Nuclear Fuel				$116,138	14,480.7	$8.02	
16								
17	**Purchased Energy**							
18	LT Purchased Energy (Gas)				$127,128	3,414.4	$37.23	
19	LT Purchased Energy (Solar)				$44,343	661.9	$66.99	
20	Community Solar*Gardens (CSG)	$329,263	2,311.9	$142.42	$173,049	1,352.9	$127.91	
21	LT Purchased Energy (Wind)				$213,501	5,672.1	$37.64	
22	LT Purchased Energy (Other)				$168,033	2,046.1	$82.12	
23	ST Market Purchases				$113,568	2,454.5	$46.27	
24	MISO Market Charges							
25	Subtotal				$996,076	15,602.0	$63.84	
26								
27	**Total NSP System Costs**				$1,545,378	53,969.0	$28.63	
28								
29	**Less Sales Revenue**				($400,579)	(12,622.5)	$31.74	
30	**Less Solar Gardens - Above Market Cost**	(247,045)			($113,747)			
31	**Less Renewable*Connect Pilot**				($6,207)	(181.2)	$34.26	
32	**Less Renewable*Connect Flex (MTM)**				($13,278)	(442.8)	$29.99	
33	**Less Renewable*Connect LT**							
34								
35	**NSP Net System Costs Excluded CSG Above Market**			$25.90	$1,011,567	40,722.5	$24.84	
36	**& Renewable*Connect Costs**	**PROTECTED DATA ENDS]**						**PROTECTED DATA ENDS]**
37								

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☒ **Public Document**

Xcel Energy Information Request No. 1
Docket No.: E002/AA-23-153
Response To: Minnesota Department of Commerce
Requestor: Stephen Collins
Date Received: May 16, 2023

Question:
Topic: Sales Forecast
Reference(s): Part A, Attachment 1, page 1 of 3 and Part A, Attachment 2, page 1 of 1

Xcel provided its forecasted 2024 Net System MWh Sales in Part A, Attachment 1, page 1 of 3 of its initial filing. In addition, Xcel provided its forecasted 2024 Net System GWh's in Part A, Attachment 2, page 1 of 1 of its initial filing.

a. Please provide Xcel's actual Net System MWh Sales for 2020, 2021, and 2022.
b. Please provide Xcel's actual Net System GWh's at the production level for 2020, 2021, and 2022.

Response:

a.

	Actual Net System MWh Sales
2020	38,456,375
2021	39,305,604
2022	39,686,566

b.

	Actual Net System GWh Generation
2020	40,108.8
2021	40,986.2
2022	41,072.7

Preparer: Mark Ritkouski
Title: Generation Modeling Analyst
Department: Generation Modeling Services
Telephone: 303-571-6320
Date: May 26, 2023

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☒ **Public Document – Not Public Data Has Been Excised**
☐ **Public Document**

Xcel Energy		Information Request No.	2
Docket No.:	E002/AA-23-153		
Response To:	Minnesota Department of Commerce		
Requestor:	Stephen Collins		
Date Received:	May 16, 2023		

Question:
Topic: Actuals for 2020 to 2022
Reference(s): Part A, Attachment 1, page 1 of 3 and Part A, Attachment 3, page 1 of 1

a. In the same format as Part A, Attachment 1, page 1 of 3, under the "2024 Total" column, please provide 2024 forecast, 2020 actuals, 2021 actuals, 2022 actuals, and three-year average for 2020 to 2022 for each line item on a live spreadsheet with all links and formulas intact. In addition, please add the additional rows/columns necessary to show the annual MWh's associated with each line item (when applicable) and the resulting annual $/MWh. For example, 2024 coal costs divided by 2024 coal MWh's should equal 2024 coal $/MWh as shown on Part A, Attachment 3, Page 1 of 1.
b. For any differences of 5% or more when comparing 2024 forecast $/MWh's to 2022 actuals $/MWh's, please explain reason for deviation.
c. For any differences of 5% or more when comparing 2024 forecast $/MWh's to the three-year average of 2020 to 2022 $/MWh's, please explain the reason for the deviation.

Response:
a. - c. Please see Attachment A to this response.

Attachment A to this response contains information the Company considers to be trade secret data as defined by Minn. Stat. § 13.37(1)(b). The information derives independent economic value from not being generally known or readily ascertainable by others who could obtain a financial advantage from its use. Thus, Xcel Energy considers this non-public data.

Preparer:	Mark Ritkouski
Title:	Generation Modeling Analyst
Department:	Generation Modeling Services
Telephone:	303-571-6320
Date:	May 26, 2023

PUBLIC DOCUMENT
NOT-PUBLIC DATA HAS BEEN EXCISED

Northern States Power Company
Electric Utility - State of Minnesota
2024 Forecast, 2020-2022 Actual Fuel, Purchased Power and Other Costs

Line #		2024			2020			2021			2022			2020 - 2022 Average		
1	*Costs in $1,000's*	Costs	GWh	$/MWh	Costs	GWh	$/MWh	Costs	GWh	$/MWh	Costs	GWh	$/MWh	Costs	GWh	$/MWh
2																
3	**Own Generation**	*Protected Data is shaded.*														
4	Fossil Fuel	**[PROTECTED DATA BEGINS**														
5	Coal				$182,474	8,527.6	$21.40	$197,754	9,265.0	$21.34	$242,848	9,523.9	$25.50	$207,692	9,105.5	$22.81
6	Wood/RDF				$9,013	553.5	$16.28	$9,155	533.8	$17.15	$9,781	513.5	$19.05	$9,316	533.6	$17.46
7	Natural Gas CC				$120,536	6,121.3	$19.69	$195,504	6,100.6	$32.05	$217,122	3,852.6	$56.36	$177,721	5,358.2	$33.17
8	Natural Gas & Oil CT				$18,924	715.4	$26.45	$49,824	842.6	$59.13	$46,559	528.5	$88.10	$38,436	695.5	$55.26
9	Subtotal				$330,948	15,917.8	$20.79	$452,237	16,742.1	$27.01	$516,310	14,418.5	$35.81	$433,165	15,692.8	$27.60
10																
11	Hydro				$0	1,244.5	$0.00	$0	861.1	$0.00	$0	848.0	$0.00	$0	984.5	$0.00
12	Solar															
13	Wind				$0	5,001.4	$0.00	$0	7,264.3	$0.00	$0	9,361.3	$0.00	$0	7,209.0	$0.00
14																
15	Nuclear Fuel				$119,986	14,677.3	$8.17	$111,253	14,068.5	$7.91	$117,174	14,696.2	$7.97	$116,138	14,480.7	$8.02
16																
17	**Purchased Energy**															
18	LT Purchased Energy (Gas)				$79,565	3,716.4	$21.41	$146,232	4,032.0	$36.27	$155,586	2,494.9	$62.36	$127,128	3,414.4	$37.23
19	LT Purchased Energy (Solar)				$41,490	589.1	$70.43	$42,905	608.9	$70.47	$48,633	787.9	$61.73	$44,343	661.9	$66.99
20	Community Solar*Gardens (CSG)	$329,263	2,311.9	$142.42	$151,466	1,199.6	$126.27	$183,652	1,455.6	$126.17	$184,030	1,403.5	$131.12	$173,049	1,352.9	$127.91
21	LT Purchased Energy (Wind)				$201,803	5,538.8	$36.43	$194,087	5,007.6	$38.76	$244,613	6,470.0	$37.81	$213,501	5,672.1	$37.64
22	LT Purchased Energy (Other)				$136,985	1,780.3	$76.95	$176,450	2,138.6	$82.51	$190,665	2,219.6	$85.90	$168,033	2,046.1	$82.12
23	ST Market Purchases				$108,791	2,507.1	$43.39	$85,141	2,085.8	$40.82	$146,773	2,770.6	$52.98	$113,568	2,454.5	$46.27
24	MISO Market Charges							$229,886			$239,474					
25	Subtotal				$720,100	15,331.2	$46.97	$1,058,353	15,328.4	$69.05	$1,209,774	16,146.5	$74.92	$996,076	15,602.0	$63.84
26																
27	**Total NSP System Costs**				$1,171,034	52,172.2	$22.45	$1,621,843	54,264.3	$29.89	$1,843,257	55,470.5	$33.23	$1,545,378	53,969.0	$28.63
28																
29	**Less Sales Revenue**				($200,170)	(11,486.4)	$17.43	($437,200)	(12,659.8)	$34.53	($564,368)	(13,721.3)	$41.13	($400,579)	(12,622.5)	$31.74
30	**Less Solar Gardens - Above Market Cost**	(247,045)			($130,594)			($110,745)			($99,903)			($113,747)		
31	**Less Renewable*Connect Pilot**				($6,139)	(182.5)	$33.63	($6,190)	(177.8)	$34.82	($6,291)	(183.2)	$34.33	($6,207)	(181.2)	$34.26
32	**Less Renewable*Connect Flex (MTM)**				($9,474)	(394.5)	$24.02	($12,169)	(440.6)	$27.62	($18,190)	(493.3)	$36.87	($13,278)	(442.8)	$29.99
33	**Less Renewable*Connect LT**															
34																
35	**NSP Net System Costs Excluded CSG Above Market & Renewable*Connect Costs**			$25.90	$824,657	40,108.8	$20.56	$1,055,539	40,986.2	$25.75	$1,154,506	41,072.7	$28.11	$1,011,567	40,722.5	$24.84
36		**PROTECTED DATA ENDS]**														
37																

Data Source:

2024 Part A, Attachment 1 Page 1 of 3, May 1, 2023 Petition, Docket No. E002/AA-23-153
Part A, Attachment 2 Page 1 of 1, May 1, 2023 Petition, Docket No. E002/AA-23-153
Part A, Attachment 3 Page 1 of 1, May 1, 2023 Petition, Docket No. E002/AA-23-153

2020 Part A, Attachment 2 Page 1 of 1, March 1, 2021 True-Up Report, Docket No. E002/AA-19-293
Part A, Attachment 6 Page 1 of 1, March 1, 2021 True-Up Report, Docket No. E002/AA-19-293
Part A, Attachment 7 Page 1 of 1, March 1, 2021 True-Up Report, Docket No. E002/AA-19-293

2021 Part A, Attachment 2 Page 1 of 1, March 1, 2022 True-Up Report, Docket No. E002/AA-20-417
Part A, Attachment 6 Page 1 of 1, March 1, 2022 True-Up Report, Docket No. E002/AA-20-417
Part A, Attachment 7 Page 1 of 1, March 1, 2022 True-Up Report, Docket No. E002/AA-20-417

2022 Part A, Attachment 2 Page 1 of 1, March 1, 2023 True-Up Report, Docket No. E002/AA-22-179
Part A, Attachment 6 Page 1 of 1, March 1, 2023 True-Up Report, Docket No. E002/AA-22-179
Part A, Attachment 7 Page 1 of 1, March 1, 2023 True-Up Report, Docket No. E002/AA-22-179

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Northern States Power Company
Electric Utility - State of Minnesota
2024 Forecast Fuel, Purchased Power and Other Costs

Line #		2024			2022			
1	*Costs in $1,000's*	**Costs**	**GWh**	**$/MWh**	**Costs**	**GWh**	**$/MWh**	
2								
3	**Own Generation**	*Protected Data is shaded.*						2022 Delta and key drivers
4	Fossil Fuel	**[PROTECTED DATA BEGINS**						**[PROTECTED DATA BEGINS**
5	Coal				$242,848	9,523.9	$25.50	
6	Wood/RDF				$9,781	513.5	$19.05	
7	Natural Gas CC				$217,122	3,852.6	$56.36	
8	Natural Gas & Oil CT				$46,559	528.5	$88.10	
9	Subtotal				$516,310	14,418.5	$35.81	
10								
11	Hydro				$0	848.0	$0.00	
12	Solar							
13	Wind				$0	9,361.3	$0.00	
14								
15	Nuclear Fuel				$117,174	14,696.2	$7.97	
16								
17	**Purchased Energy**							
18	LT Purchased Energy (Gas)				$155,586	2,494.9	$62.36	
19	LT Purchased Energy (Solar)				$48,633	787.9	$61.73	
20	Community Solar*Gardens (CSG)	$329,263	2,311.9	$142.42	$184,030	1,403.5	$131.12	
21	LT Purchased Energy (Wind)				$244,613	6,470.0	$37.81	
22	LT Purchased Energy (Other)				$190,665	2,219.6	$85.90	
23	ST Market Purchases				$146,773	2,770.6	$52.98	
24	MISO Market Charges				239474.0812			
25	Subtotal				$1,209,774	16,146.5	$74.92	
26								
27	**Total NSP System Costs**				$1,843,257	55,470.5	$33.23	
28								
29	**Less Sales Revenue**				($564,368)	(13,721.3)	$41.13	
30	**Less Solar Gardens - Above Market Cost**	(247,045)			($99,903)			
31	**Less Renewable*Connect Pilot**				($6,291)	(183.2)	$34.33	
32	**Less Renewable*Connect Flex (MTM)**				($18,190)	(493.3)	$36.87	
33	**Less Renewable*Connect LT**							
34								
35	**NSP Net System Costs Excluded CSG Above Market**			$25.90	$1,154,506	41,072.7	$28.11	
36	**& Renewable*Connect Costs**	**PROTECTED DATA ENDS]**						**PROTECTED DATA ENDS]**
37								

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Northern States Power Company
Electric Utility - State of Minnesota
2024 Forecast Fuel, Purchased Power and Other Costs

Docket No. E002/AA-23-153
DOC IR 2
Attachment A - Page 3 of 3

Line #		2024			2020 - 2022 Average			
1	*Costs in $1,000's*	**Costs**	**GWh**	**$/MWh**	**Costs**	**GWh**	**$/MWh**	
2								
3	**Own Generation**	*Protected Data is shaded.*						3 Yr Avg Delta and key drivers
4	Fossil Fuel	**[PROTECTED DATA BEGINS**						**[PROTECTED DATA BEGINS**
5	Coal				$207,692	9,105.5	$22.81	
6	Wood/RDF				$9,316	533.6	$17.46	
7	Natural Gas CC				$177,721	5,358.2	$33.17	
8	Natural Gas & Oil CT				$38,436	695.5	$55.26	
9	Subtotal				$433,165	15,692.8	$27.60	
10								
11	Hydro				$0	984.5	$0.00	
12	Solar							
13	Wind				$0	7,209.0	$0.00	
14								
15	Nuclear Fuel				$116,138	14,480.7	$8.02	
16								
17	**Purchased Energy**							
18	LT Purchased Energy (Gas)				$127,128	3,414.4	$37.23	
19	LT Purchased Energy (Solar)				$44,343	661.9	$66.99	
20	Community Solar*Gardens (CSG)	$329,263	2,311.9	$142.42	$173,049	1,352.9	$127.91	
21	LT Purchased Energy (Wind)				$213,501	5,672.1	$37.64	
22	LT Purchased Energy (Other)				$168,033	2,046.1	$82.12	
23	ST Market Purchases				$113,568	2,454.5	$46.27	
24	MISO Market Charges							
25	Subtotal				$996,076	15,602.0	$63.84	
26								
27	**Total NSP System Costs**				$1,545,378	53,969.0	$28.63	
28								
29	**Less Sales Revenue**				($400,579)	(12,622.5)	$31.74	
30	**Less Solar Gardens - Above Market Cost**	(247,045)			($113,747)			
31	**Less Renewable*Connect Pilot**				($6,207)	(181.2)	$34.26	
32	**Less Renewable*Connect Flex (MTM)**				($13,278)	(442.8)	$29.99	
33	**Less Renewable*Connect LT**							
34								
35	**NSP Net System Costs Excluded CSG Above Market**			$25.90	$1,011,567	40,722.5	$24.84	
36	**& Renewable*Connect Costs**	**PROTECTED DATA ENDS]**						**PROTECTED DATA ENDS]**
37								

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Xcel Energy		Information Request No.	3
Docket No.:	E002/AA-23-153		
Response To:	Minnesota Department of Commerce		
Requestor:	Stephen Collins		
Date Received:	May 16, 2023		

Question:
Topic: MISO Costs and Revenues
Reference(s): Part A, Attachment 1, page 1 of 3

a. Please explain in detail where Xcel's forecasted 2024 total MISO Day 2 (energy market) and MISO Day 3 (ancillary services market) costs and revenues are reflected on the above referenced attachment.
b. Please provide Xcel's comparable total forecasted 2024 net MISO Day 2 and net MISO Day 3 costs and revenues reflected in the above referenced attachment.
c. Please provide Xcel's actual net MISO Day 2 and MISO Day 3 costs and revenues for calendar years 2020, 2021, and 2022.

Response:
a. See the response to part b below.

b. The net of MISO Day 2 and Day 3 costs and revenues in the forecast is **[PROTECTED DATA BEGINS PROTECTED DATA ENDS]** which is the sum of lines 23, 24 and 29 from Part A, Attachment 1, page 1 of 3 (as shown in Part B, Attachment 9 provided with the filing).
c. Xcel's actual net MISO Day 2 and MISO Day 3 costs and revenues for calendar years 2020, 2021, and 2022:

	Day 2	Day 3/ASM	Total
2020	$(104,623,614.70)	$18,474,150.97	$(86,149,463.73)
2021	$(153,735,316.84)	$35,849,420.45	$(117,885,896.39)
2022	$(225,986,444.67)	$42,468,105.37	$(183,518,339.30)

This response contains information the Company considers to be trade secret data as defined by Minn. Stat. § 13.37(1)(b). The information derives independent economic value from not being generally known or readily ascertainable by others who could obtain a financial advantage from its use. Thus, Xcel Energy considers this non-public data.

Preparer: Mark Ritkouski
Title: Generation Modeling Analyst
Department: Generation Modeling Services
Telephone: 303-571-6320
Date: May 26, 2023

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Xcel Energy		Information Request No.	4
Docket No.:	E002/AA-23-153		
Response To:	Minnesota Department of Commerce		
Requestor:	Stephen Collins		
Date Received:	May 16, 2023		

Question:
Topic: Asset-Based Margins
Reference(s): Part A, Attachment 1, page 1 of 3

a. Please explain in detail where Xcel's forecasted 2024 asset-based margins are reflected on the above referenced attachment.
b. If possible, please provide Xcel's forecasted 2024 asset-based margins included in the above-referenced attachment.
c. Is Xcel proposing to keep a portion of its forecasted 2024 asset-based margins or is 100% being passed back to ratepayers?
d. Please provide Xcel's actual asset-based margins for calendar years 2020, 2021, and 2022.

Response:
a. Asset-based margins for 2024 are reflected in the Net System Costs shown at line 35 of Part A, Attachment 1, page 1 of 3. Asset-based margins are the difference between asset-based Sales Revenues shown at line 29 less the underlying generation fuel costs incurred to make the asset-based sales which are part of the total fuel costs shown at line 27.
b. Xcel Energy's estimate of asset-based margins included at line 35 is **[PROTECTED DATA BEGINS PROTECTED DATA ENDS]** for 2024 as noted on page 10 of our Petition narrative.
c. Xcel Energy plans to return 100 percent of asset-based margins to ratepayers as required by the April 24, 2006 settlement agreement in the Company's 2006 test year electric rate case (Docket No. E002/GR-05-1428) and approved in the Commission's July 6, 2006 Order in that docket (Order Point No. 2). The calculations on Part A, Attachment 1, page 1 of 3 return 100 percent of asset-based margins to customers through inclusion of 100 percent of the asset-based sales revenues at line 29 and 100 percent of the asset-based sales cost at line 27.

d.

Asset-Based Margins (millions)

2020	$51.5	Actual
2021	$128.3	Actual
2022	$188.3	Actual

This response contains information the Company considers to be trade secret data as defined by Minn. Stat. § 13.37(1)(b). The information derives independent economic value from not being generally known or readily ascertainable by others who could obtain a financial advantage from its use. Thus, Xcel Energy considers this non-public data.

Preparer:	Mark Ritkouski	Austin Donovan
Title:	Generation Modeling Analyst	Principal Financial Consultant
Department:	Generation Modeling Services	NSP Commercial Accounting
Telephone:	303-571-6320	303-294-2525
Date:	May 26, 2023	

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Xcel Energy Information Request No. 5
Docket No.: E002/AA-23-153
Response To: Minnesota Department of Commerce
Requestor: Stephen Collins
Date Received: May 16, 2023

Question:
Topic: Non-Asset-Based Margins
Reference(s): Part A, Attachment 1, page 1 of 3

a. Please explain if Xcel is required to share any non-asset-based margins with ratepayers. If so, please provide the percentage that Xcel is required to share and explain where Xcel's forecasted 2024 non-asset-based margins are reflected on the above referenced attachment.
b. If possible, please provide Xcel's forecasted 2024 non asset-based margins included in the above referenced attachment.
c. Please provide Xcel's actual non-asset-based margins for calendar years 2020, 2021, and 2022.

Response:
a. Consistent with the Commission's May 14, 2012 Order in our test year 2011 general electric rate case (Docket No. E002/GR-10-971), the Non-Asset Based Margins are no longer credited through the fuel clause adjustment in the Minnesota jurisdiction. Therefore, no Non-Asset Based margins are included in Part A, Attachment 1, page 1 of 3.
b. See the response to part a. above.
c. Non-Asset Based margins for the NSP system, after allocating to the jurisdictions, as required by the Joint Operating Agreement, are as follows:

Year	**NSP Non-Asset Based Margins**
2020	$6,676,764
2021	$26,566,937
2022	$11,300,771

Preparer:	Austin Donovan
Title:	Principal Financial Consultant
Department:	NSP Commercial Accounting
Telephone:	303-294-2525
Date:	May 26, 2023

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Xcel Energy		Information Request No.	6
Docket No.:	E002/AA-23-153		
Response To:	Minnesota Department of Commerce		
Requestor:	Stephen Collins		
Date Received:	May 16, 2023		

Question:
Topic: Outages
Reference(s): Part B, Attachment 7, page 1 of 1

a. Xcel's total forecasted 2024 planned and unplanned outage MWh's and incremental planned and unplanned outage costs are shown in the above referenced attachment. Please provide Xcel's actual planned and unplanned MWh's and costs for calendar years 2020, 2021, and 2022 in the same format as shown in the "Total" row at the bottom of the above-referenced attachment.
b. In outage MWhs and total dollar cost, please explain any differences of 5% of more in the 2024 forecast vs. 2020-2022 average actuals and 2024 forecast versus 2022 actuals.

Response:
a. Please see Attachment A to this response.
b. Outage MWh is more than 5 percent higher for the 2024 forecast as compared to both 2022 and the three-year average for 2020-2022, as shown on Attachment A. This is driven by better combined cycle unit performance (less unplanned outages) in 2022 versus the five-year historical time period used in the outage rate calculation for the forecast. In addition, there are more planned outage MWh in 2024 due to **[PROTECTED DATA BEGINS PROTECTED DATA ENDS]**.

   Outage cost is more than 5 percent lower for the 2024 forecast as compared to 2022 as shown on Attachment A. This is driven by lower 2024 test year LMP prices as compared to 2022. Outage cost is more than 5 percent higher for the 2024 forecast as compared to the three-year average for 2020-2022 as shown on Attachment A. This is driven by sharply lower actual LMP prices in 2020, reducing the three-year average compared to 2024 test year.

Attachment A to this response, as well as the narrative response, contain information the Company considers to be trade secret data as defined by Minn. Stat. § 13.37(1)(b). The information derives independent economic value from not being generally known or readily

ascertainable by others who could obtain a financial advantage from its use. Thus, Xcel Energy considers this non-public data.

Preparer:	Mark Ritkouski
Title:	Generation Modeling Analyst
Department:	Generation Modeling Services
Telephone:	303-571-6320
Date:	May 26, 2023

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Northern States Power Company
Electric Utility - State of Minnesota
Outage Cost Actual - 2020-2022 Compared to 2024 Forecast

		Planned								Unplanned							
Unit	Type	Outage MWh	Replacement Cost ($)	Unit Cost ($)	Energy Cost Due to Outages ($)		Replacement Cost $/MWh	Unit Cost $/MWh	Outage Cost $/MWh	Outage MWh	Replacement Cost ($)	Unit Cost ($)	Energy Cost Due to Outages ($)		Replacement Co $/MWh	Unit Cost $/MWh	Outage Cost $/MWh
		[PROTECTED DATA BEGINS															
Total 2020																	
Total 2021																	
Total 2022																	
3 Year Average																	
Total 2024 Test Year																	

	Total Outage MWh	Total Outage Energy Costs
Total 2020		
Total 2021		
Total 2022		
3 Year Average		
Total 2024 Test Year		
Delta - 2024 vs. 2022		
Delta - 2024 vs 3 Year Avg		

PROTECTED DATA ENDS]

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Xcel Energy Information Request No. 7
Docket No.: E002/AA-23-153
Response To: Minnesota Department of Commerce
Requestor: Stephen Collins
Date Received: May 16, 2023

Question:
Topic: Congestion Costs
Reference(s): Part B, Attachment 9

Xcel's forecasted 2024 congestion costs and related financial charges are shown on the above-referenced attachment.

a. Please provide Xcel's actual congestion charges in the same format for 2020, 2021, and 2022.
b. Please provide Xcel's forecasted 2023 congestion charges that were approved by the Commission.

Response:
a. and b.

MISO Charge Type Year Over Year Comparison ($000s)

Category	2020 Actual	2021 Actual	2022 Actual	2023 Approved	2024 Forecast
[PROTECTED DATA BEGINS					
Congestion					
					PROTECTED DATA ENDS]

This response contains information the Company considers to be trade secret data as defined by Minn. Stat. § 13.37(1)(b). The information derives independent economic value from not being generally known or readily ascertainable by others who could obtain a financial advantage from its use. Thus, Xcel Energy considers this non-public data.

Preparer: Mark Ritkouski
Title: Generation Modeling Analyst
Department: Generation Modeling Services
Telephone: 303-571-6320
Date: May 26, 2023

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Xcel Energy		Information Request No.	8
Docket No.:	E002/AA-23-153		
Response To:	Minnesota Department of Commerce		
Requestor:	Stephen Collins		
Date Received:	May 16, 2023		

Question:
Topic: Wind Curtailment
Reference(s): Part G, Workpaper 8

a. Please provide forecasted 2024 and actual 2020, 2021, and 2022 MWh and $ curtailment for all PPAs.
b. Please provide actual 2020, 2021, and 2022 MWh curtailed and 2024 forecasted MWh curtailed for Company-owned wind farms.
c. Please fully explain if the wind curtailment calculations shown on the above-referenced attachment include wind curtailments for all PPAs or only PPAs with compensable PTCs.
d. Were any PPAs without compensable PTCs curtailed in 2022? If so, please provide the amount of wind curtailment in MWh's for these facilities in 2020, 2021, and 2022.

Response:
a. Please see Attachment A, provided as Part G, Workpaper 8 in our initial filing, which provides forecasted PPA curtailment for 2024, as applicable. Please see Attachment B, provided in March 1 true-up filings as Part C, Attachment 2, for actual PPA curtailment for 2020 through 2022.

b. Curtailment of Company-owned wind facilities in MWh is shown in the table below.

Company-Owned Wind Curtailment	2020 Actual	2021 Actual	2022 Actual	2024 Forecast
	[PROTECTED DATA BEGINS			
Blazing Star 1	70	9,283	6,809	
Blazing Star 2	NA	13,949	3,661	
Border	5,677	226	9,836	
Community Wind North	NA	828	69	
Courtenay	4,145	8,116	4,868	
Crowned Ridge II	0.0	51,057	77,472	
Dakota Range 1&2	NA	NA	64,410	
Foxtail	13,523	43,725	117,057	
Freeborn	NA	23,522	83,661	
Grand Meadow	71,210	63,616	13,849	
Jeffers	NA	9,555	2,183	
Lake Benton II (Buffalo Ridge / Chanarambie)	474	17,560	3,810	
Mower County	NA	8,826	3,240	
Northern CV	NA	NA	NA	
Northern RA	NA	NA	NA	
Nobles	6,625	313,377	223,684	
Pleasant Valley	8,935	42,356	2,417	
Total	**110,659**	**605,997**	**617,028**	
	PROTECTED DATA ENDS]			

c. The wind curtailment calculations shown on the above-referenced attachments include wind curtailments for only the PPAs that have compensable PTCs. Other wind PPAs either have passed expiration of PTCs or will before 2024 or are wind PPAs that do not typically get curtailed.

d. Yes. Please see the table below.

Project	Curtailment MWh			Comments
	2020	2021	2022	
[PROTECTED DATA BEGINS				
Big Blue				
Cisco				
Fenton				
Lake Benton I				
MinnDakota				
Moraine II				
Mower County				Repowered and purchased by Company in 2021
Ridgewind				
Valley View Wind				
Woodstock Hills				
Zephyr				
PROTECTED DATA ENDS]				

Attachments A and B to this response, as well as the narrative response, contain information the Company considers to be trade secret data as defined by Minn. Stat. § 13.37(1)(b). The information derives independent economic value from not being generally known or readily ascertainable by others who could obtain a financial advantage from its use. Thus, Xcel Energy considers this non-public data.

Preparer:	Mark Ritkouski	Randy Oye
Title:	Generation Modeling Analyst	Transmission Analyst
Department:	Generation Modeling	Market Operations
Telephone:	303-571-6320	612-330-2886
Date:	May 26, 2023	

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Northern States Power
Electric Utility - State of Minnesota
Forecasted PPA Curtailment for 2024

Parent Name	Collection	Child Name	Category	Fiscal Year	PLEXOS Curtailment Available Energy Generation (GWh)	(GWh)	MWh	Curtailment $
					[PROTECTED DATA BEGINS			
System	Generator	Wind CBED Big Blue	PPA Wind Curtailable	2024				
System	Generator	Wind CBED Community Wind South	PPA Wind Curtailable	2024				
System	Generator	Wind Clean Energy1 PPA	PPA Wind Curtailable	2024				
System	Generator	Wind Crowned Ridge PPA	PPA Wind Curtailable	2024				
System	Generator	Wind Dakota Range III PPA	PPA Wind Curtailable	2024				
System	Generator	Wind Fenton	PPA Wind Curtailable	2024				
System	Generator	Wind Geronimo Odell	PPA Wind Curtailable	2024				
System	Generator	Wind Minn Dakota	PPA Wind Curtailable	2024				
System	Generator	Wind Moraine II	PPA Wind Curtailable	2024				
System	Generator	Wind Prairie Rose	PPA Wind Curtailable	2024				
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Parent Name	Collection	Child Name	Category	Fiscal Year	Generation (GWh)	VO&M Charge ($/MWh)	VO&M Cost ($000)	FO&M Cost ($000)	Available Energy (GWh)
					[PROTECTED DATA BEGINS				
System	Generator	Wind CBED Adams	PPA Wind	2024					
System	Generator	Wind CBED Danielson	PPA Wind	2024					
System	Generator	Wind CBED Ewington	PPA Wind	2024					
System	Generator	Wind CBED Hilltop	PPA Wind	2024					
System	Generator	Wind CBED Ridgewind	PPA Wind	2024					
System	Generator	Wind CBED Roseville	PPA Wind	2024					
System	Generator	Wind CBED Uilk	PPA Wind	2024					
System	Generator	Wind CBED Valley View	PPA Wind	2024					
System	Generator	Wind CBED Winona	PPA Wind	2024					
System	Generator	Wind CBED Woodstock	PPA Wind	2024					
System	Generator	Wind Deuel Harvest PPA	PPA Wind	2024					
System	Generator	Wind Eastridge	PPA Wind	2024					
System	Generator	Wind Garwin McNeilus	PPA Wind	2024					
System	Generator	Wind Heartland Divide 2 PPA	PPA Wind	2024					
System	Generator	Wind Lakota	PPA Wind	2024					
System	Generator	Wind Norgaard	PPA Wind	2024					
System	Generator	Wind North Shaokatan	PPA Wind	2024					
System	Generator	Wind Phase 2	PPA Wind	2024					
System	Generator	Wind PRC Windshare	PPA Wind	2024					
System	Generator	Wind Ruthton	PPA Wind	2024					
System	Generator	Wind Shaokatan	PPA Wind	2024					
System	Generator	Wind Source Cisco	PPA Wind	2024					
System	Generator	Wind Source Garwin McNeilus	PPA Wind	2024					
System	Generator	Wind Source JJN	PPA Wind	2024					
System	Generator	Wind Source West Ridge	PPA Wind	2024					
System	Generator	Wind Stahl	PPA Wind	2024					
System	Generator	Wind Tholen	PPA Wind	2024					
System	Generator	Wind UMORE Park	PPA Wind	2024					
System	Generator	Wind Various	PPA Wind	2024					
System	Generator	Wind Velva	PPA Wind	2024					
System	Generator	Wind Westridge	PPA Wind	2024					
System	Generator	Wind Woodstock	PPA Wind	2024					
System	Generator	Wind CBED Big Blue	PPA Wind Curtailable	2024					
System	Generator	Wind CBED Community Wind South	PPA Wind Curtailable	2024					
System	Generator	Wind Clean Energy1 PPA	PPA Wind Curtailable	2024					
System	Generator	Wind Crowned Ridge PPA	PPA Wind Curtailable	2024					
System	Generator	Wind Dakota Range III PPA	PPA Wind Curtailable	2024					
System	Generator	Wind Fenton	PPA Wind Curtailable	2024					
System	Generator	Wind Geronimo Odell	PPA Wind Curtailable	2024					
System	Generator	Wind Minn Dakota	PPA Wind Curtailable	2024					
System	Generator	Wind Moraine II	PPA Wind Curtailable	2024					
System	Generator	Wind Prairie Rose	PPA Wind Curtailable	2024					

PROTECTED DATA ENDS]

PUBLIC DOCUMENT
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Northern States Power Company
Electric Utility - State of Minnesota
Wind Curtailment Summary Report - Lake Benton I
2022 AAA Period

Production Month	Date Paid		Wind Production Delivered		Lost Production			Total Xcel Energy Paid
	Delivered MWh	Lost MWh	MWh Delivered	Amount Xcel Energy Paid	Lost MWh	Amount Xcel Energy Paid	Reason Codes	
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Northern States Power Company
Electric Utility - State of Minnesota
Wind Curtailment Summary Report - Northern Alternative Energy (NAE)
2022 AAA Period

	Date Paid		Wind Production Delivered		Lost Production			
Production Month	Delivered MWh	Lost MWh	MWh Delivered	Amount Xcel Energy Paid	Lost MWh	Amount Xcel Energy Paid	Reason Codes	Total Xcel Energy Paid
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Northern States Power Company
Electric Utility - State of Minnesota
Wind Curtailment Summary Report - Velva
2022 AAA Period

	Date Paid		Wind Production Delivered		Lost Production			
Production Month	Delivered MWh	Lost MWh	MWh Delivered	Amount Xcel Energy Paid	Lost MWh	Amount Xcel Energy Paid	Reason Codes	Total Xcel Energy Paid
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Northern States Power Company
Electric Utility - State of Minnesota
Wind Curtailment Summary Report - Fenton (EnXco)
2022 AAA Period

Production Month	Date Paid		Wind Production Delivered		Lost Production			Total Xcel Energy Paid
	Delivered MWh	Lost MWh	MWh Delivered	Amount Xcel Energy Paid	Lost MWh	Amount Xcel Energy Paid	Reason Codes	
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Northern States Power Company
Electric Utility - State of Minnesota
Wind Curtailment Summary Report - MinnDakota (Formerly Ivanhoe)
2022 AAA Period

	Date Paid		Wind Production Delivered		Lost Production			
Production Month	Delivered MWh	Lost MWh	MWh Delivered	Amount Xcel Energy Paid	Lost MWh	Amount Xcel Energy Paid	Reason Codes	Total Xcel Energy Paid
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Northern States Power Company
Electric Utility - State of Minnesota
Wind Curtailment Summary Report - Lincoln Heights Wind Holdings North*
2022 AAA Period

Production Month	Date Paid		Wind Production Delivered		Lost Production			Total Xcel Energy Paid
	Delivered MWh	Lost MWh	MWh Delivered	Amount Xcel Energy Paid	Lost MWh	Amount Xcel Energy Paid	Reason Codes	
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*Effective 7/1/16 Norgaard North changed name to Lincoln Heights Wind Holdings North LLC.

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Northern States Power Company
Electric Utility - State of Minnesota
Wind Curtailment Summary Report - Lincoln Heights Wind Holdings South*
2022 AAA Period

	Date Paid		Wind Production Delivered		Lost Production			
Production Month	Delivered MWh	Lost MWh	MWh Delivered	Amount Xcel Energy Paid	Lost MWh	Amount Xcel Energy Paid	Reason Codes	Total Xcel Energy Paid
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Northern States Power Company
Electric Utility - State of Minnesota
Wind Curtailment Summary Report - JJN Windfarm, LLC.
2022 AAA Period

	Date Paid		Wind Production Delivered		Lost Production			
Production Month	Delivered MWh	Lost MWh	MWh Delivered	Amount Xcel Energy Paid	Lost MWh	Amount Xcel Energy Paid	Reason Codes	Total Xcel Energy Paid
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Northern States Power Company
Electric Utility - State of Minnesota
Wind Curtailment Summary Report - Ulik
2022 AAA Period

	Date Paid		Wind Production Delivered		Lost Production			
Production Month	Delivered MWh	Lost MWh	MWh Delivered	Amount Xcel Energy Paid	Lost MWh	Amount Xcel Energy Paid	Reason Codes	Total Xcel Energy Paid
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Northern States Power Company
Electric Utility - State of Minnesota
Wind Curtailment Summary Report - Ewington
2022 AAA Period

Production Month	Date Paid		Wind Production Delivered		Lost Production			Total Xcel Energy Paid
	Delivered MWh	Lost MWh	MWh Delivered	Amount Xcel Energy Paid	Lost MWh	Amount Xcel Energy Paid	Reason Codes	
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Northern States Power Company
Electric Utility - State of Minnesota
Wind Curtailment Summary Report - Moraine II Wind LLC
2022 AAA Period

	Date Paid		Wind Production Delivered		Lost Production			
Production Month	Delivered MWh	Lost MWh	MWh Delivered	Amount Xcel Energy Paid	Lost MWh	Amount Xcel Energy Paid	Reason Codes	Total Xcel Energy Paid
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Northern States Power Company
Electric Utility - State of Minnesota
Wind Curtailment Summary Report - Prairie Rose
2022 AAA Period

Production Month	Date Paid		Wind Production Delivered		Lost Production			Total Xcel Energy Paid
	Delivered MWh	Lost MWh	MWh Delivered	Amount Xcel Energy Paid	Lost MWh	Amount Xcel Energy Paid	Reason Codes	
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Northern States Power Company
Electric Utility - State of Minnesota
Wind Curtailment Summary Report - Zephyr Wind LLC
2022 AAA Period

Production Month	Date Paid		Wind Production Delivered		Lost Production			Total Xcel Energy Paid
	Delivered MWh	Lost MWh	MWh Delivered	Amount Xcel Energy Paid	Lost MWh	Amount Xcel Energy Paid	Reason Codes	
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Northern States Power Company
Electric Utility - State of Minnesota
Wind Curtailment Summary Report - Big Blue Wind Farm
2022 AAA Period

Production Month	Date Paid		Wind Production Delivered		Lost Production			Total Xcel Energy Paid
	Delivered MWh	Lost MWh	MWh Delivered	Amount Xcel Energy Paid	Lost MWh	Amount Xcel Energy Paid	Reason Codes	
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Northern States Power Company
Electric Utility - State of Minnesota
Wind Curtailment Summary Report - Valley View Wind
2022 AAA Period

	Date Paid		Wind Production Delivered		Lost Production			
Production Month	Delivered MWh	Lost MWh	MWh Delivered	Amount Xcel Energy Paid	Lost MWh	Amount Xcel Energy Paid	Reason Codes	Total Xcel Energy Paid
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Northern States Power Company
Electric Utility - State of Minnesota
Wind Curtailment Summary Report - Ridgewind Power Partners LLC
2022 AAA Period

	Date Paid		Wind Production Delivered		Lost Production			
Production Month	Delivered MWh	Lost MWh	MWh Delivered	Amount Xcel Energy Paid	Lost MWh	Amount Xcel Energy Paid	Reason Codes	Total Xcel Energy Paid
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Northern States Power Company
Electric Utility - State of Minnesota
Wind Curtailment Summary Report - Grant County Wind LLC
2022 AAA Period

	Date Paid		Wind Production Delivered		Lost Production			
Production Month	Delivered MWh	Lost MWh	MWh Delivered	Amount Xcel Energy Paid	Lost MWh	Amount Xcel Energy Paid	Reason Codes	Total Xcel Energy Paid
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Northern States Power Company
Electric Utility - State of Minnesota
Wind Curtailment Summary Report - Adams Wind Generations
2022 AAA Period

	Date Paid		Wind Production Delivered		Lost Production			
Production Month	Delivered MWh	Lost MWh	MWh Delivered	Amount Xcel Energy Paid	Lost MWh	Amount Xcel Energy Paid	Reason Codes	Total Xcel Energy Paid
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Northern States Power Company
Electric Utility - State of Minnesota
Wind Curtailment Summary Report - Odell
2022 AAA Period

	Date Paid		Wind Production Delivered		Lost Production			
Production Month	Delivered MWh	Lost MWh	MWh Delivered	Amount Xcel Energy Paid	Lost MWh	Amount Xcel Energy Paid	Reason Codes	Total Xcel Energy Paid
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Northern States Power Company
Electric Utility - State of Minnesota
Wind Curtailment Summary Report - Woodstock Hills
2022 AAA Period

	Date Paid		Wind Production Delivered		Lost Production			
Production Month	Delivered MWh	Lost MWh	MWh Delivered	Amount Xcel Energy Paid	Lost MWh	Amount Xcel Energy Paid	Reason Codes	Total Xcel Energy Paid
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PUBLIC DOCUMENT
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Northern States Power Company
Electric Utility - State of Minnesota
Wind Curtailment Summary Report - Cisco
2022 AAA Period

Production Month	Date Paid		Wind Production Delivered		Lost Production			Total Xcel Energy Paid
	Delivered MWh	Lost MWh	MWh Delivered	Amount Xcel Energy Paid	Lost MWh	Amount Xcel Energy Paid	Reason Codes	
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Northern States Power Company
Electric Utility - State of Minnesota
Wind Curtailment Summary Report - Crowned Ridge
2022 AAA Period

	Date Paid		Wind Production Delivered		Lost Production			
Production Month	Delivered MWh	Lost MWh	MWh Delivered	Amount Xcel Energy Paid	Lost MWh	Amount Xcel Energy Paid	Reason Codes	Total Xcel Energy Paid
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Northern States Power Company
Electric Utility - State of Minnesota
Wind Curtailment Summary Report - Glen Ullin
2022 AAA Period

	Date Paid		Wind Production Delivered		Lost Production			
Production Month	Delivered MWh	Lost MWh	MWh Delivered	Amount Xcel Energy Paid	Lost MWh	Amount Xcel Energy Paid	Reason Codes	Total Xcel Energy Paid
	[PROTECTED DATA BEGINS							
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Northern States Power Company
Electric Utility - State of Minnesota
Wind Curtailment Summary Report - Dakota Range III
2022 AAA Period

Production Month	Date Paid		Wind Production Delivered		Lost Production			Total Xcel Energy Paid
	Delivered MWh	Lost MWh	MWh Delivered	Amount Xcel Energy Paid	Lost MWh	Amount Xcel Energy Paid	Reason Codes	
	[PROTECTED DATA BEGINS							
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Xcel Energy Information Request No. 9
Docket No.: E002/AA-23-153
Response To: Minnesota Department of Commerce
Requestor: Stephen Collins
Date Received: May 16, 2023

Question:
Topic: MISO Planning Resource Auction
Reference(s): No specific reference

a. Please summarize Xcel's understanding of the ongoing PRA process for the 2023-24 planning year.
b. Please provide 2024 forecasts of megawatts, dollars per megawatt, and total revenue/costs for the planning resource auction. Please provide any supporting calculations and documentation.
c. Please explain what MISO charge types these capacity auctions revenues and expenses are recorded to. Also, when will Xcel receive or does Xcel expect to receive the capacity auction revenues and expenses? Please include applicable MISO invoices if available.
d. Please confirm Xcel is flowing through PRA costs/revenues through base rates and not the FCA.

Response:
a. MISO released the results of their 2023-24 Planning Resource Auction on May 17, 2023. The table below summarizes the results for Northern States Power Company. Further details about the PRA results may be found at: 2023 Planning Resource Auction (PRA) Results628925.pdf (misoenergy.org)

Season	Capacity Cleared	ACP	Total Seasonal Revenue
	[PROTECTED DATA BEGINS		
Summer			
Fall			
Winter			
Spring			
Annual Total			

PROTECTED DATA ENDS]

b. See part a. above for the 2023/2024 PRA planning year results.
c. MISO capacity auction revenues are recorded to the RT_RAA (Resource Adequacy Auction Amount) MISO charge type. Xcel Energy will receive the PRA revenues for the 2023-24 Planning Resource Auction on its daily MISO S7 settlements with the amounts varying depending on the auction amount that cleared for each season. Given it is a daily billing, there is no single invoice (or small group of invoices) that would show the total amount received.
d. Yes, as discussed in the Company's July 22, 2022 Reply Comments in Docket No. E002/AA-22-179, PRA revenues are incorporated into base rates, not the FCA, and we incorporated an estimate in our pending electric rate case in Docket No. E002/GR-21-630. Per the Commission's January 10, 2023 Order in Docket No. E002/GR-21-630, the Company will credit excess revenues from the 2023-2024 MISO PRA as an offset to our 2023 revenue requirement in the pending electric multiyear rate plan in that docket and will develop a tracker and annual true-up mechanism to account for future variances in PRA revenues compared to amounts credited customers in base rates.

Preparer:	Carolyn Lee	Shane Mackinnon
Title:	Regulatory Consultant	Sr. Market Operations Financial Analyst
Department:	Market Operations	Market Operations Accounting
Telephone:	303-571-7505	
Date:	May 26, 2023	

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Xcel Energy		Information Request No.	10
Docket No.:	E002/AA-23-153		
Response To:	Minnesota Department of Commerce		
Requestor:	Stephen Collins		
Date Received:	May 16, 2023		

Question:
Topic: Compliance Matrix
Reference(s): Part C, Attachment 1

Please clarify whether the second-to-last column in the compliance matrix is supposed to refer to Xcel's April 30, 2021 forecast petition.

Response:
The Company inadvertently filed the version of the Fuel Forecast compliance matrix that was filed with our March 1, 2023 true-up Petition for the 2022 forecast period instead of an updated version for the May 1, 2023 initial 2024 forecast Petition. We apologize for the error and attach the correct version of Part C, Attachment 1 to this response.

Preparer:	Rebecca Eilers
Title:	Regulatory Manager
Department:	NSPM Regulatory
Telephone:	612-330-5570
Date:	May 26, 2023

Northern States Power Company
Electric Utility - State of Minnesota
Compliance Matrix

Former AAA	Description	Docket or Rule	May 1, 2023 Annual Forecast of Rates	March 1, 2025 Annual True-Up Filing
Part D, Section 1 and all Schedules	Policies and Actions: Fuel Procurement	Rule 7825.2800	Part D, Attachment 1	Part D, Attachment 1
D-1, Schedule 1	Nuclear Fuel Component of Service	Rule 7825.2800	Part D, Attachment 2	Part D, Attachment 2
D-1, Schedule 2	Coal Contracts	Rule 7825.2800	Part D, Attachment 3	Part D, Attachment 3
D-1, Schedule 3	Transportation & Related Services Contracts	Rule 7825.2800	Part D, Attachment 4	Part D, Attachment 4
D-1, Schedule 4	Wood and RDF Contracts	Rule 7825.2800	Part D, Attachment 5	Part D, Attachment 5
D-1, Schedule 5	Cost Changes	Rule 7825.2800	Part D, Attachment 6	Part D, Attachment 6
Part D, Section 2	Policies and Actions: Dispatching Policies and Procedures	Rule 7825.2800	Part D, Attachment 7	Part D, Attachment 7
Part D, Section 3	Policies and Actions: Fuel Supply	Rule 7825.2800	Part D, Attachment 8	Part D, Attachment 8
Part D, Section 4	Policies and Actions: Conservation and Load Management Policy	Rule 7825.2800	Part D, Attachment 9	Part D, Attachment 9
Part D, Section 5	Policies and Actions: Other Actions to Minimize Costs	Rule 7825.2800	Part D, Attachment 10	Part D, Attachment 10
Part E, Section 1	Annual Report of Automatic Adjustment Charges: Base Cost of Fuel	Rule 7825.2810; Docket 04-1279	Part A, Attachment 1 and discussed in Petition	Report Narrative
Part E, Section 2	Annual Report of Automatic Adjustment Charges: Billing Adjustment Amounts Charged to Customers for Each Type of Energy Cost	Rule 7825.2810; Docket 04-1279	Discussed in Petition	Part A
Part E, Section 3	Annual Report of Automatic Adjustment Charges: Total Cost of Fuel Delivered to Customers	Rule 7825.2810; Docket 04-1279	Discussed in Petition	Part A
Part E, Section 4	Annual Report of Automatic Adjustment Charges: Revenue Collected from Customers for Energy Delivered	Rule 7825.2810; Docket 04-1279	Discussed in Petition	Part A
Part E, Section 5	Annual Report of Automatic Adjustment Charges: Monthly Fuel Clause Adjustment	Rule 7825.2810; Docket 04-1279	Part A, Attachment 1 and discussed in Petition	Part A, Attachment 4
Part F, Schedule 1	Memo Engaging Auditor	Rule 7825.2820	NA	Part E, Attachment 1
Part F, Schedule 2	Independent Auditor's Report	Rule 7825.2820	NA	Part E, Attachment 2
Part G, Schedule 1	5-Year Fuel Cost Forecast – Per Unit Summary	Rule 7825.2830	Part A, Attachment 1 Part E, Attachment 1	NA
Part G, Schedule 2	5-Year Fuel Cost Forecast – Cost Summary	Rule 7825.2830	Part A, Attachment 2 Part E, Attachment 2	NA
Part G, Schedule 3	5-Year Fuel Cost Forecast – Energy Summary	Rule 7825.2830	Part A, Attachment 3 Part E, Attachment 3	NA
Part G, Schedule 4	Fossil Fuel Costs	Rule 7825.2830	Part B, Attachment 2	NA
Part G, Schedule 5	Coal Burn Expenses	Rule 7825.2830	Part B, Attachment 3	NA
Part G, Schedule 6	Nuclear Fuel Expenses	Rule 7825.2830	Part B, Attachment 4	NA
Part G, Schedule 7	Peak Demand and Energy Requirements	Rule 7825.2830	Part A, Attachment 4 Part E, Attachment 4	NA
Part G, Schedule 8	Estimated Load Management Impact	Rule 7825.2830	Part E, Attachment 5	NA

Northern States Power Company
Electric Utility - State of Minnesota
Compliance Matrix

Former AAA	Description	Docket or Rule	May 1, 2023 Annual Forecast of Rates	March 1, 2025 Annual True-Up Filing
Part H, Section 3	Natural Gas Financial Instruments	Dockets M-01-1953 and AA-02-950	NA	Report Narrative Part E, Attachments 1 and 2
Part H, Section 5, Schedule 1	Wind Curtailment Summary	Dockets M-00-622, M-02-51, M-04-404, CN-01-1958, M-04-864, M-05-1850, M-05-1934 and M-06-85	NA	Part C, Attachment 2
Part H, Section 5, Schedule 2	Wind Curtailment Report Narrative	Docket AA-04-1279	Discussed in Petition Part G, Workpaper 9	Part C, Attachment 1
Part H, Section 6	KODA PPA	Docket M-08-1098	NA	Part F, Attachment 1
Part H, Section 7	WMRE PPA	Docket M-10-61	NA	Part F, Attachment 1
Part H, Section 8	Diamond K Dairy PPA	Docket M-486	NA	Part F, Attachment 1
Part H, Section 9 and Schedules H-9-1 and H-9-2	Community Solar Gardens	Docket M-13-867	Discussed in Petition Part B, Attachment 12 Part G, Workpapers 7 & 8	Part C, Attachments 8, 9, 10 Report Narrative
Part H, Section 10	FCA Rule Variance Dockets	Docket AA-15-611	Discussed in Petition Part C, Attachment 2	Part F, Attachment 4
Part H, Section 11	HERC	Docket M-17-532	NA	Part F, Attachment 1
Part J, Sections 1-3	Summary of key factors affecting costs in the forecast, and plan for acquiring fuel and purchased energy	Docket 04-1970, Docket 06-1208, Docket GR-05-1428	Discussed in Petition	NA
Part J, Section 5	Monthly MISO Day 2 charges and allocation	Docket AA-07-1130	Discussed in Petition Part B, Attachment 8 Part F, Workpaper 5	Part B
Part J, Section 6	Annual and Daily Ancillary Services Market charges and summary	Docket M-08-528	NA	Part B
Part K, Section 1	Generation facilities maintenance expenses	Docket AA-06-1208	NA	Part C, Attachment 6
Part K, Section 3	Contractor and supplier performance	Docket AA-08-995	NA	Part C, Attachment 3
Part K, Section 4 Schedule 1	Offsetting Revenues and/or compensation Received by IOUs	Docket AA-10-884	NA	Part F, Attachment 1
Part K, Section 4 Schedule 2	Handling of forced outages	Docket 08-995 and Docket AA-10-884	NA	Part C, Attachments 3, 4, 5
Part K, Section 4 Schedule 3	Unusual Adjustments over $500,000	Dockets AA-09-961 and AA-10-884	NA	Part F, Attachment 3
New Compliance	Self-Scheduling	Docket AA-17-492	NA	Provided in 3/1/23 Report in Docket No. E999/CI-19-704
Part M	Notice of Reports Availability	Rule 7825.2840	Addendum to Petition	Part F, Attachment 7
New Compliance	Renewable*Connect Neutrality	Docket M-15-985	Discussed in Petition Part G, Workpaper 11	Part F, Attachment 2

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☐ **Public Document**

Xcel Energy Information Request No. 11
Docket No.: E002/AA-23-153
Response To: Minnesota Department of Commerce
Requestor: Stephen Collins
Date Received: May 16, 2023

Question:
Topic: Wind
Reference(s): Petition at 6, 9-10 and Part B, Att. 10

For each wind facility included on Xcel's system (PPAs and Company-owned wind), please provide the assumed capacity factor at the time the project or PPA was approved by the Commission. In addition, please provide the actual capacity factor for each wind facility for the years 2020, 2021, and 2022, and forecasted capacity factors for 2023 (in last year's AA filing) and 2024 (in this year's filing).

Response:
Below we provide the requested data for Company-owned wind facilities.

	At Time of Acquisition Filing	Forecast 2024	Forecast 2023	Actual 2022	Actual 2021	Actual 2020
	[PROTECTED DATA BEGINS					
Blazing Star 1				49.4	45.9	43.4
Blazing Star 2				47.4	46.1	N/A
Borders				50.9	49.9	51.7
Courtenay				46.7	43.4	41.4
Crowned Ridge 2				50.4	49.9	N/A
Dakota Range				43.0	N/A	N/A
Foxtail				39.9	47.3	46.8
Freeborn				41.3	37.1	N/A
Grand Meadow				30.5	24.8	25.7
Jeffers				54.9	46.0	N/A
Lake Benton 2				52.0	50.9	52.1
Mower				40.9	36.2	N/A
Nobles				23.9	19.9	39.3
Pleasant Valley				49.6	41.3	45.6
Northern CV				52.9	46.6	N/A
Northern RA				N/A	N/A	N/A
	PROTECTED DATA ENDS]					

Attachment A to this response provides the actual capacity factor for each wind PPA for the years 2020, 2021, and 2022 as well as the forecast capacity factors for 2023 and 2024. We do not have a compiled record of capacity factors for these PPAs assumed at the time of Commission approval.

The narrative and Attachment A to this response contains information the Company considers to be trade secret data as defined by Minn. Stat. § 13.37(1)(b). The information derives independent economic value from not being generally known or readily ascertainable by others who could obtain a financial advantage from its use. Thus, Xcel Energy considers this non-public data.

Preparer:	Nathan Svoboda	Mark Ritkouski
Title:	Pr Operations Support	Generation Modeling Analyst
Department:	Operations	Generation Modeling
Telephone:	612-321-3295	303-571-6320
Date:	May 26, 2023	

PPA Capacity Factors (CF) 2020-2024

PPA	Counterparty	MW	Actual 2020 CF	Actual 2021 CF	Actual 2022 CF	Forecast 2023 CF	Forecast 2024 CF
			[PROTECTED DATA BEGINS				
Wind CBED Adams	Adams Wind Generations, LLC	19.8					
Wind CBED Big Blue	Big Blue Wind Farm, LLC	36					
Wind CBED Community Wind South	Zephyr Wind, LLC	30					
Wind CBED Danielson	Danielson Wind Farms, LLC	19.8					
Wind CBED Ewington	Ewington Energy Systems, LLC	19.95					
Wind CBED Hilltop	Hilltop Power	2					
Wind CBED Jeffers	Jeffers Wind 20 LLC	50					
Wind CBED Ridgewind	Ridgewind Power Partners LLC	25.3					
Wind CBED Roseville	Grant County Wind	20					
Wind CBED Uilk	Uilk Wind Farm, LLC	4.5					
Wind CBED Valley View	Valley View Transmission, LLC	10					
Wind CBED Winona	Winona County Wind, LLC	1.5					
Wind CBED Woodstock	Woodstock Municipal Wind, LLC	0.75					
Wind Clean Energy	ALLETE Clean Energy, Inc.	106.08					
Wind Community Wind North	North Wind Turbines LLC North Community Turbines LLC	30					
Wind Crown Ridge	Crowned Ridge Wind, LLC	200					
Wind Dakota Range III	DAKOTA RANGE III, LLC	153.6					
Wind Deuel Harvest Wind Energy LLC	Deuel Harvest Wind Energy LLC	300					
Wind Eastridge	Bendwind, LLC DeGreeff DP, LLC DeGreefffpa LLC Groen Wind LLC Hillcrest Wind LLC LarswindLLC Sierra Wind LLC TAIR Windfarm LLC	10					
Wind Fenton	Fenton Power Partners I, LLC	205.5					
Wind FPL	FPL Energy Mower County, LLC	98.9					
Wind Garwin McNeilus	Bangladesh Children's Support LLC, Brandon Wind LLC, BT Windfarm LLC, Burmese Children's Support, LLC, GarMar Foundation I, LLC/ REAP I, Gar Mar Wind I, LLC, GM Windfarm LLC, Henslin Creek LLC, Indian Children's Support, LLC, McNeilus Windfarm LLC, Salvadoran Children's Support , SG (JCKD) Windfarm LLC, Southeast Asian Children's Support, LLC, Triton Wind LLC, Wasioja Wind LLC, Wilhelm Wind LLC	27.5					
Wind Geronimo Odell	Odell Wind, LLC	200					
Wind Heartland Divide	Heartland Divide Wind II, LLC	200.04					
Wind Lakota	Northern Alternative Energy Lakota Ridge LLC	11.25					
Wind Minn Dakota	MinnDakota Wind LLC	150					
Wind Moraine II	Moraine Wind II LLC	49.5					
Wind Norgaard	Roadrunner ,I LLC, Salty Dog-I LLC, Wallys Windfarm LLC, Windy Dog I LLC, Breezy Bucks-I & II LLC, Salty Dog II, LLC	8.75					
Wind North Shaokatan	Autumn Hills LLC, Jack River LLC,Jessica Mills LLC, Julia Hills LLC, Sun River LLC, Tsar Nicholas, LLC	13.53					
Wind Phase 2	Lake Benton Power Partners LLC (LBI)	105.75					
Wind Phase 4	Chanarambie Power Partners, LLC	85.5					
Wind PRC Windshare	Rock Ridge, South Ridge and Windvest						
Wind Prairie Rose	Prairie Rose Wind, LLC	200					
Wind Ruthton	Ruthton Ridge LLC, Florence Hills LLC,Hadley Ridge LLC,Hope Creek LLC, Soliloquy Ridge LLC, Spartan Hills LLC,Twin Lake Hills LL, Winter's Spawn LLC	15.84					
Wind Shaokatan	Northern Alternative Enrgy Shakotan Hills LLC	11.88					
Wind Source Cisco	Cisco Wind Energy LLC	8					
Wind Source Garwin McNeilus	Ashland Windfarm LLC, Elsinore Wind LLC, Gar Mar Foundation II / REAP II, Grant Windfarm LLC, Zumbro Windfarm	9.25					
Wind Source JJN	JJN Windfarm, LLC	1.5					
Wind Source MinWind	Minwind III -IX, LLC	11.55					
Wind Source West Ridge	Westridge Windfarm LLC, Tofteland Windfarm LLC, TG Windfarm LLC, CG Windfarm LLC, , Fey Windfarm LLC,	9.5					
Wind Stahl	Stahl Wind Energy LLC, Northern Lights Wind LLC, Lucky Wind LLC, Greenback Energy LLC Cartensen Wind LLC	8.25					
Wind Tholen	Tholen Transmission Projects	13.2					
Wind University of Minnesota	UMORE Park, LLC	2.5					
Wind Various	Agassiz Beach LLC, Metro Wind LLC, Shanes Wind Farm LLC, Carlton College LLC,Kas Brothers Wind LLC, Ed Olsen Wind LLC, Rock Ridge Windfarm LLC, Southridge Windfarm LLC, St.Olaf College, Windvest Windfarm LLC	16.34					
Wind Velva	Velva Windfarm, LLC	11.88					
Wind Viking	Buffalo Ridge Wind Farm LLC, Moulton Heights Wind Power Project LLC, Muncie Power Partners LLC, North Ridge Wind Farm LLC, Vandy South Project, Viking Wind Farm LLC, Vindy Power Partners LLC, Wilson-West Windfarm LLC	12					
Wind Westridge	K-Brink Wind Farm, LLC Bisson Windfarm LLC, Boeve Windfarm LLC, Windcurrents Windfarm, LLC	7.6					
Wind Woodstock	Woodstock Wind Farm, LLC	10.2					

PROTECTED DATA E

(1) Facility was not in commercial operation
(2) PPAs terminated and facility purchased by NSP
(3) Did not operate
(4) Repowered

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
Public Comments

Docket No. E002/AA-22-153

Dated this **29th** day of **June 2023**

/s/Sharon Ferguson

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Kevin	Adams	kadams@caprw.org	Community Action Partnership of Ramsey & Washington Counties	450 Syndicate St N Ste 35 Saint Paul, MN 55104	Electronic Service	No	OFF_SL_23-153_AA-23-153
Alison C	Archer	aarcher@misoenergy.org	MISO	2985 Ames Crossing Rd Eagan, MN 55121	Electronic Service	No	OFF_SL_23-153_AA-23-153
Mara	Ascheman	mara.k.ascheman@xcelenergy.com	Xcel Energy	414 Nicollet Mall Fl 5 Minneapolis, MN 55401	Electronic Service	Yes	OFF_SL_23-153_AA-23-153
Gail	Baranko	gail.baranko@xcelenergy.com	Xcel Energy	414 Nicollet Mall7th Floor Minneapolis, MN 55401	Electronic Service	Yes	OFF_SL_23-153_AA-23-153
Allen	Barr	allen.barr@ag.state.mn.us	Office of the Attorney General-DOC	445 Minnesota St Ste 1400 Saint Paul, MN 55101	Electronic Service	No	OFF_SL_23-153_AA-23-153
Jessica L	Bayles	Jessica.Bayles@stoel.com	Stoel Rives LLP	1150 18th St NW Ste 325 Washington, DC 20036	Electronic Service	No	OFF_SL_23-153_AA-23-153
James J.	Bertrand	james.bertrand@stinson.com	STINSON LLP	50 S 6th St Ste 2600 Minneapolis, MN 55402	Electronic Service	No	OFF_SL_23-153_AA-23-153
Elizabeth	Brama	ebrama@taftlaw.com	Taft Stettinius & Hollister LLP	2200 IDS Center 80 South 8th Street Minneapolis, MN 55402	Electronic Service	No	OFF_SL_23-153_AA-23-153
James	Canaday	james.canaday@ag.state.mn.us	Office of the Attorney General-RUD	Suite 1400 445 Minnesota St. St. Paul, MN 55101	Electronic Service	No	OFF_SL_23-153_AA-23-153
John	Coffman	john@johncoffman.net	AARP	871 Tuxedo Blvd. St, Louis, MO 63119-2044	Electronic Service	No	OFF_SL_23-153_AA-23-153

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
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_23-153_AA-23-153
George	Crocker	gwillc@nawo.org	North American Water Office	5093 Keats Avenue Lake Elmo, MN 55042	Electronic Service	No	OFF_SL_23-153_AA-23-153
James	Denniston	james.r.denniston@xcelenergy.com	Xcel Energy Services, Inc.	414 Nicollet Mall, 401-8 Minneapolis, MN 55401	Electronic Service	No	OFF_SL_23-153_AA-23-153
Ian M.	Dobson	ian.m.dobson@xcelenergy.com	Xcel Energy	414 Nicollet Mall, 401-8 Minneapolis, MN 55401	Electronic Service	Yes	OFF_SL_23-153_AA-23-153
Richard	Dornfeld	Richard.Dornfeld@ag.state.mn.us	Office of the Attorney General-DOC	Minnesota Attorney General's Office 445 Minnesota Street, Suite 1800 Saint Paul, Minnesota 55101	Electronic Service	No	OFF_SL_23-153_AA-23-153
Christopher	Droske	christopher.droske@minneapolismn.gov	City of Minneapolis	661 5th Ave N Minneapolis, MN 55405	Electronic Service	No	OFF_SL_23-153_AA-23-153
Brian	Edstrom	briane@cubminnesota.org	Citizens Utility Board of Minnesota	332 Minnesota St Ste W1360 Saint Paul, MN 55101	Electronic Service	No	OFF_SL_23-153_AA-23-153
Rebecca	Eilers	rebecca.d.eilers@xcelenergy.com	Xcel Energy	414 Nicollet Mall - 401 7th Floor Minneapolis, MN 55401	Electronic Service	Yes	OFF_SL_23-153_AA-23-153
John	Farrell	jfarrell@ilsr.org	Institute for Local Self-Reliance	2720 E. 22nd St Institute for Local Self-Reliance Minneapolis, MN 55406	Electronic Service	No	OFF_SL_23-153_AA-23-153

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Sharon	Ferguson	sharon.ferguson@state.mn.us	Department of Commerce	85 7th Place E Ste 280 Saint Paul, MN 551012198	Electronic Service	No	OFF_SL_23-153_AA-23-153
Lucas	Franco	lfranco@liunagroc.com	LIUNA	81 Little Canada Rd E Little Canada, MN 55117	Electronic Service	No	OFF_SL_23-153_AA-23-153
Edward	Garvey	edward.garvey@AESLconsulting.com	AESL Consulting	32 Lawton St Saint Paul, MN 55102-2617	Electronic Service	No	OFF_SL_23-153_AA-23-153
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Janet	Gonzalez	Janet.gonzalez@state.mn.us	Public Utilities Commission	Suite 350 121 7th Place East St. Paul, MN 55101	Electronic Service	No	OFF_SL_23-153_AA-23-153
Matthew B	Harris	matt.b.harris@xcelenergy.com	XCEL ENERGY	401 Nicollet Mall FL 8 Minneapolis, MN 55401	Electronic Service	Yes	OFF_SL_23-153_AA-23-153
Shubha	Harris	Shubha.M.Harris@xcelenergy.com	Xcel Energy	414 Nicollet Mall, 401 - FL 8 Minneapolis, MN 55401	Electronic Service	Yes	OFF_SL_23-153_AA-23-153
Amber	Hedlund	amber.r.hedlund@xcelenergy.com	Northern States Power Company dba Xcel Energy-Elec	414 Nicollet Mall, 401-7 Minneapolis, MN 55401	Electronic Service	No	OFF_SL_23-153_AA-23-153
Adam	Heinen	aheinen@dakotaelectric.com	Dakota Electric Association	4300 220th St W Farmington, MN 55024	Electronic Service	No	OFF_SL_23-153_AA-23-153
Katherine	Hinderlie	katherine.hinderlie@ag.state.mn.us	Office of the Attorney General-DOC	445 Minnesota St Suite 1400 St. Paul, MN 55101-2134	Electronic Service	No	OFF_SL_23-153_AA-23-153

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
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Brad	Klein	bklein@elpc.org	Environmental Law & Policy Center	35 E. Wacker Drive, Suite 1600 Suite 1600 Chicago, IL 60601	Electronic Service	No	OFF_SL_23-153_AA-23-153
Michael	Krikava	mkrikava@taftlaw.com	Taft Stettinius & Hollister LLP	2200 IDS Center 80 S 8th St Minneapolis, MN 55402	Electronic Service	No	OFF_SL_23-153_AA-23-153
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Peder	Larson	plarson@larkinhoffman.com	Larkin Hoffman Daly & Lindgren, Ltd.	8300 Norman Center Drive Suite 1000 Bloomington, MN 55437	Electronic Service	No	OFF_SL_23-153_AA-23-153

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
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Ryan	Long	ryan.j.long@xcelenergy.com	Xcel Energy	414 Nicollet Mall 401 8th Floor Minneapolis, MN 55401	Electronic Service	Yes	OFF_SL_23-153_AA-23-153
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Kavita	Maini	kmaini@wi.rr.com	KM Energy Consulting, LLC	961 N Lost Woods Rd Oconomowoc, WI 53066	Electronic Service	No	OFF_SL_23-153_AA-23-153
Pam	Marshall	pam@energycents.org	Energy CENTS Coalition	823 E 7th St St Paul, MN 55106	Electronic Service	No	OFF_SL_23-153_AA-23-153
Mary	Martinka	mary.a.martinka@xcelenergy.com	Xcel Energy Inc	414 Nicollet Mall 7th Floor Minneapolis, MN 55401	Electronic Service	Yes	OFF_SL_23-153_AA-23-153
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Joseph	Meyer	joseph.meyer@ag.state.mn.us	Office of the Attorney General-RUD	Bremer Tower, Suite 1400 445 Minnesota Street St Paul, MN 55101-2131	Electronic Service	No	OFF_SL_23-153_AA-23-153
Stacy	Miller	stacy.miller@minneapolismn.gov	City of Minneapolis	350 S. 5th Street Room M 301 Minneapolis, MN 55415	Electronic Service	No	OFF_SL_23-153_AA-23-153

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
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Christa	Moseng	christa.moseng@state.mn.us	Office of Administrative Hearings	P.O. Box 64620 Saint Paul, MN 55164-0620	Electronic Service	No	OFF_SL_23-153_AA-23-153
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Carol A.	Overland	overland@legalectric.org	Legalectric - Overland Law Office	1110 West Avenue Red Wing, MN 55066	Electronic Service	No	OFF_SL_23-153_AA-23-153
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_23-153_AA-23-153
Kevin	Reuther	kreuther@mncenter.org	MN Center for Environmental Advocacy	26 E Exchange St, Ste 206 St. Paul, MN 551011667	Electronic Service	No	OFF_SL_23-153_AA-23-153
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First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
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Samantha	Williams	swilliams@nrdc.org	Natural Resources Defense Council	20 N. Wacker Drive Ste 1600 Chicago, IL 60606	Electronic Service	No	OFF_SL_23-153_AA-23-153
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