

April 15, 2025

PUBLIC DOCUMENT

Will Seuffert
Minnesota Public Utilities Commission
121 7th Place East, Suite 350
St. Paul, Minnesota 55101-2147

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

Dear Mr. Seuffert:

Attached are the **PUBLIC** comments of the Minnesota Department of Commerce (Department) in the following matter:

*Annual True-Up Compliance Report of 2024 Annual Fuel Forecast and
Monthly Fuel Cost Charges .*

The Petition was filed by Northern States Power Company, doing business as Xcel Energy, on March 3, 2025.

The Department recommends, subject to Department confirming Xcel's class factor calculations, the Commission approve the 2024 FAC true-up and is available to answer any questions the Minnesota Public Utilities Commission may have.

Sincerely,

/s/ Dr. SYDNIE LIEB
Assistant Commissioner of Regulatory Analysis

AG/ar
Attachment



Before the Minnesota Public Utilities Commission

PUBLIC Comments of the Minnesota Department of Commerce

Docket No. E002/AA-23-153

I. INTRODUCTION

On March 3, 2025, Northern States Power Company, doing business as Xcel Energy (Xcel or the Company) filed a petition in the instant docket requesting the Minnesota Public Utilities Commission (Commission) authorize Xcel to implement true-up factors by class for the Company's Fuel Clause Adjustment (FCA).¹ Xcel requested the Commission approve its proposed refund to customers for its over-collected 2024 FCA costs of \$94.2 million.² The Company also proposed to return to customers \$176 million related to nuclear production tax credit (PTC) transactions and \$48 million related to a November 2011 outage at the Company's Sherco Unit 3 plant, for a total proposed return of \$318 million to customers.³

The petition stated that Xcel would begin to implement the refund within 30 days if no party objected, in accordance with established FCA processes. As no party objected, Xcel therefore began the refund on April 1, 2025 – with changes resulting from Commission Order related to the Sherco Unit 3 outage refund discussed further in the Comments below – as stated in a March 31, 2025 Compliance Filing.⁴ The final amount of the refund may still be adjusted once review of Xcel's petition is completed.

Below, the Minnesota Department of Commerce (Department or DOC) provides relevant background information, summarizes the petition, and provides its analysis of Xcel's petition.

¹ *In the Matter of the Petition of Northern States Power Company for Approval of the 2024 Annual Fuel Forecast and Monthly Fuel Charges*, Petition, Xcel Energy, March 3, 2025, Docket No. E002/AA-23-153, (eDockets) [20253-215976-01](#) (Hereinafter "Instant FCA True-Up Petition").

² A November 2024 mid-year adjustment filing by company already refunded \$30.5 million in over-collected fuel costs to Xcel customers.

³ Instant FCA True-Up Petition at 1-2.

⁴ *In the Matter of the Petition of Northern States Power Company for Approval of the 2024 Annual Fuel Forecast and Monthly Fuel Charges*, Compliance Filing – 2024 Annual Fuel Forecast and Monthly Fuel Cost Charges, Xcel Energy, March 31, 2025, Docket No. E002/AA-23-153, (eDockets) [20253-217035-01](#).

II. PROCEDURAL 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 energy costs, referred to generally as “fuel.” Specifically, the Fuel Clause Statute states:

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

On December 19, 2017, in Docket No. E999/CI-03-802, the Fuel Clause Investigation Docket, the Commission issued an Order⁵ approving new annual fuel clause adjustment requirements as follows:

- 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

⁵ *In the Matter of an Investigation into the Appropriateness of Continuing to Permit Electric Energy Cost Adjustments*, Order Approving New Annual Fuel Clause Adjustment Requirements and Setting Filing Requirements, Minnesota Public Utilities Commission, December 19, 2017, Docket No. E999/CI-03-802, (eDockets) [201712-138275-01](#).

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 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.
- Each utility must file a lessons-learned report at the end of three years to assess the new process.

On December 12, 2018, the Commission issued an Order⁶ in the Fuel Clause Investigation Docket, ordering 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.
- Before the lessons-learned reports are filed three years after implementation of the new FCA process, parties will discuss what information will be included in those reports.

⁶ *In the Matter of an Investigation into the Appropriateness of Continuing to Permit Electric Energy Cost Adjustments*, Order Revising Implementation Date, Establishing Procedural Requirements, and Varying Rule, Minnesota Public Utilities Commission, December 12, 2018, Docket No. E999/CI-03-802, (eDockets) [201812-148414-01](#).

As explained in the December 12, 2018 Order, the FCA was previously adjusted monthly:

Minn. Stat. § 216B.16, subd. 7, authorizes the Commission to allow a public utility to automatically adjust charges for the cost of fuel. Pursuant to this statute, Minnesota's rate-regulated electric utilities have automatically adjusted their rates monthly through a fuel clause adjustment (FCA) mechanism and subsequently filed monthly and annual reports, which the Commission has reviewed for accuracy and prudence. The adjustments have reflected, on a per-kilowatt-hour basis, deviations from the base cost of energy established in the utility's most recent general rate case.* In 2003, the Commission initiated an investigation to explore possible changes to the FCA, inviting stakeholders to comment on the purpose, structure, rationale, and relevance of the FCA.

*Minn. R. 7825.2600.

The new process, as approved in the December 19, 2017 Order, moved to setting rates through an annual process with post-year true-ups:

After multiple rounds of comments, including a reform proposal submitted by the Department, the Commission issued its Order Approving New Annual Fuel Clause Adjustment Requirements and Setting Filing Requirements (December 2017 Order), in which the Commission approved the Department's proposal to change the FCA process. Under the new process, each utility will forecast its monthly fuel costs for the upcoming year in an annual filing, and will charge those forecasted rates unless the utility can show a significant unforeseen impact on those rates during the forecasted year. At the end of the forecasted year, each utility will compare its forecasted rates with its actual fuel costs incurred throughout the year, and will refund any over collections and show prudence of costs before recovering under collections.

On June 12, 2019, the Commission issued an Order⁷ in the Fuel Clause Investigation Docket with additional requirements, including:

- The Commission adopts the procedural schedule contained in Appendix A to this order.⁸
- The Commission adopts a threshold of plus or minus 5 percent 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. The Electric 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.
- The Commission approves the use of a regulatory asset account to track under-recovered FCA funds and a regulatory liability account to track over-recovered FCA funds. Regulatory assets and liabilities shall be recorded in FERC account 182.3.

The applicable parts of the procedural schedule⁹ for the true-up as related to the Instant FCA True-Up are below:

- March 1, 2025: Utilities Submit True-Up for 2024
- April 15, 2025: Initial Comments
- May 2, 2025: Utility Reply Comments
- May 15, 2025: Response by Consumer Advocates
- August 2, 2025: Commission Order on True-Up
- September 1, 2025: Implement True-Up

On August 15, 2023, Xcel filed its lessons-learned report regarding the Fuel Clause Adjustment (FCA) Reform mechanism.¹⁰ On March 12, 2024, the Commission issued an Order¹¹ accepting Xcel's report and requiring Xcel to incorporate the following in future FCA filings:

- Answers to recurring information requests (IRs), including the most recent three-year average of actual annual data compared to forecast for the FCA calculation components, generation costs, purchase costs, inter-system sales and outages; and
- A comparison of the actual winter energy purchases to the forecast amounts, with an explanation of a variance of 5% or greater.

⁷ *In the Matter of an Investigation into the Appropriateness of Continuing to Permit Electric Energy Cost Adjustments*, Order Approving Additional Details of New Fuel Clause Adjustment Process, Minnesota Public Utilities Commission, June 12, 2019, Docket No. E999/CI-03-802, (eDockets) [20196-153514-01](#) (Hereinafter "June 2019 Fuel Clause Investigation Docket Order").

⁸ In addition, the body of the Order states: "The filing schedule for the new FCA process was proposed in Section III of the joint comments and is contained in Appendix A to this order. The schedule covers the years 2020–2023, with 2020 acting as the transition year to the new FCA process and therefore using a slightly different schedule than the subsequent years. The schedule for the years after 2023 will continue following the same process as the 2021–2023 schedule."

⁹ Modified from New FCA Procedural Schedule in June 2019 Fuel Clause Investigation Docket Order, Appendix A.

¹⁰ *In the Matter of an Investigation into the Appropriateness of Continuing to Permit Electric Energy Cost Adjustments*, Compliance Filing – Lessons-Learned Report, Xcel Energy, August 15, 2023, Docket No. E999/CI-03-802, (eDockets) [20238-198261-01](#).

¹¹ *In the Matter of an Investigation into the Appropriateness of Continuing to Permit Electric Energy Cost Adjustments*, Order Approving Compliance Filings and Amending Initial Annual Filing Requirements, Minnesota Public Utilities Commission, March 12, 2024, Docket No. E999/CI-03-802, (eDockets) [20243-204248-01](#).

C. XCEL ANNUAL FCA HISTORY

Department Table 1 shows Xcel's approved forecasts, costs, and recoveries in each year under the annual (post-reform) FCA process.

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

Year	Docket	Total Cost		Unit Cost		Actual Recoveries	Over/(Under) Recovery
		Forecasted	Actual	Forecasted	Actual		
		\$ 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	3.8
2023	22-179	1,069.2	935.3	38.96	33.44	1,061.30	126.0
2024	23-153	1,022.7	894.7	38.10	33.42	1,019.4	124.7
2025	24-63	891.2	TBD	TBD	TBD	TBD	TBD

The Department summarizes each of these years below.

C.1. 2020 FCA (Docket No. E002/AA-19-293)

On May 1, 2019, Xcel filed its first forecast petition under the annual FCA process, in Docket No. E002/AA-19-293.¹²

On November 14, 2019, the Commission issued an Order approving Xcel's 2020 forecast with modifications.¹³ The approved forecasted FCA costs for 2020 were \$796.1 million or \$27.81/MWh.

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.¹⁴ On a

¹² *In the Matter of the Petition of Northern Sates Power Company for Approval of the 2020 Annual Fuel Forecast and Monthly Fuel Cost Charges*, Petition, Xcel Energy, May 1, 2019, Docket No. E002/AA-19-293, (eDockets) [20195-152597-01](#).

¹³ *In the Matter of the Petition of Northern Sates Power Company for Approval of the 2020 Annual Fuel Forecast and Monthly Fuel Cost Charges*, Order, Minnesota Public Utilities Commission, November 14, 2019, Docket No. E002/AA-19-293, (eDockets) [201911-157542-01](#).

¹⁴ *In the Matter of the Petition of Northern Sates Power Company for Approval of the 2020 Annual Fuel Forecast and Monthly Fuel Cost Charges*, Annual True-Up Compliance Report, Xcel Energy, March 1, 2021, Docket No. E002/AA-19-293, (eDockets) [20213-171472-02](#).

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.¹⁵

Xcel recovered the \$5.0 million through a one-time increased FCA charge in September 2021.¹⁶

C.2. 2021 FCA (Docket No. E002/AA-20-417)

On May 1, 2020, Xcel filed its 2021 forecast petition, in Docket No. E002/AA-20-417.¹⁷ On December 22, 2020 the Commission issued an Order approving Xcel's 2021 forecast.¹⁸ The approved forecasted FCA costs for 2021 were \$749.7 million or \$27.78/MWh. 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.¹⁹

On September 24, 2021, the Department filed a letter supporting Xcel's proposal to recover \$25.2 million.²⁰

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.²¹ 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.

¹⁵ *In the Matter of the Petition of Northern Sates Power Company for Approval of the 2020 Annual Fuel Forecast and Monthly Fuel Cost Charges*, Order, Minnesota Public Utilities Commission, June 30, 2021, Docket No. E002/AA-19-293, (eDockets) [20216-175630-01](#).

¹⁶ *In the Matter of the Petition of Northern Sates Power Company for Approval of the 2020 Annual Fuel Forecast and Monthly Fuel Cost Charges*, Compliance Filing, Xcel Energy, July 7, 2021, Docket No. E002/AA-19-293, (eDockets) [20217-175907-01](#).

¹⁷ *In the Matter of the Petition of Northern Sates Power Company for Approval of the 2021 Annual Fuel Forecast and Monthly Fuel Cost Charges*, Petition, Xcel Energy, May 1, 2020, Docket No. E002/AA-20-417, (eDockets) [20205-162826-08](#).

¹⁸ *In the Matter of the Petition of Northern Sates Power Company for Approval of the 2021 Annual Fuel Forecast and Monthly Fuel Cost Charges*, Order, Minnesota Public Utilities Commission, December 22, 2020, Docket No. E002/AA-20-417, (eDockets) [20205-162826-08](#).

¹⁹ *In the Matter of the Petition of Northern Sates Power Company for Approval of the 2021 Annual Fuel Forecast and Monthly Fuel Cost Charges*, Compliance Filing – Rate Adjustment Proposal to Monthly Fuel Cost Charges for the 2021 Forecast Period, Xcel Energy, August 27, 2021, Docket No. E002/AA-20-417, (eDockets) [20218-177503-01](#).

²⁰ *In the Matter of the Petition of Northern Sates Power Company for Approval of the 2021 Annual Fuel Forecast and Monthly Fuel Cost Charges*, Letter, Minnesota Department of Commerce, September 24, 2021, Docket No. E002/AA-20-417, (eDockets) [20219-178245-01](#).

²¹ *In the Matter of the Petition of Northern Sates Power Company for Approval of the 2021 Annual Fuel Forecast and Monthly Fuel Cost Charges*, Annual True-Up Compliance Report, Xcel Energy, March 1, 2022, Docket No. E002/AA-20-417, (eDockets) [20223-183343-01](#).

On July 5, 2022, the Commission issued an Order approving Xcel's 2021 true-up.²²

Xcel recovered the \$81.0 million through increased FCA charges over the 12 months beginning September 2022.²³

C.3. 2022 FCA (Docket No. E002/AA-21-295)

On April 30, 2021, Xcel filed its 2022 forecast petition, in Docket No. E002/AA-21-295.²⁴ On December 2, 2021 the Commission issued an Order approving Xcel's 2022 forecast.²⁵ The approved forecasted FCA costs for 2022 were \$849.4 million or \$31.47/MWh. In addition, the Order required Xcel Energy, in its 2023 true-up filing, to identify the number and MWhs of planned outages that were originally classified as unplanned.

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 2022.²⁶ 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.²⁷

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.²⁸ 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 June 30, 2023, the Commission issued an Order approving Xcel's 2021 true-up.²⁹

²² *In the Matter of the Petition of Northern Sates Power Company for Approval of the 2021 Annual Fuel Forecast and Monthly Fuel Cost Charges*, Order, Minnesota Public Utilities Commission, July 5, 2022, Docket No. E002/AA-20-417, (eDockets) [20227-187192-01](#).

²³ *In the Matter of the Petition of Northern Sates Power Company for Approval of the 2021 Annual Fuel Forecast and Monthly Fuel Cost Charges*, Compliance Filing, Xcel Energy, July 13, 2022, Docket No. E002/AA-20-417, (eDockets) [20227-187381-01](#).

²⁴ *In the Matter of the Petition of Northern Sates Power Company for Approval of the 2022 Annual Fuel Forecast and Monthly Fuel Cost Charges*, Petition, Xcel Energy, April 30, 2021, Docket No. E002/AA-21-295, (eDockets) [20214-173731-02](#).

²⁵ *In the Matter of the Petition of Northern Sates Power Company for Approval of the 2022 Annual Fuel Forecast and Monthly Fuel Cost Charges*, Order, Minnesota Public Utilities Commission, December 2, 2021, Docket No. E002/AA-21-295, (eDockets) [202112-180345-01](#).

²⁶ *In the Matter of the Petition of Northern Sates Power Company for Approval of the 2022 Annual Fuel Forecast and Monthly Fuel Cost Charges*, Compliance Filing – Rate Adjustment Proposal to Monthly Fuel Cost Charges for the 202Forecast Period, Xcel Energy, May 19, 2022, Docket No. E002/AA-21-295, (eDockets) [20225-185907-01](#).

²⁷ *In the Matter of the Petition of Northern Sates Power Company for Approval of the 2022 Annual Fuel Forecast and Monthly Fuel Cost Charges*, Compliance Filing, Xcel Energy, June 27, 2022, Docket No. E002/AA-21-295, (eDockets) [20226-186886-01](#).

²⁸ *In the Matter of the Petition of Northern Sates Power Company for Approval of the 2022 Annual Fuel Forecast and Monthly Fuel Cost Charges*, Annual True-Up Compliance Report, Xcel Energy, March 1, 2023, Docket No. E002/AA-21-295, (eDockets) [20233-193561-01](#).

²⁹ *In the Matter of the Petition of Northern Sates Power Company for Approval of the 2022 Annual Fuel Forecast and Monthly Fuel Cost Charges*, Order, Minnesota Public Utilities Commission, June 30, 2023, Docket No. E002/AA-21-295, (eDockets) [20236-197088-01](#).

Xcel refunded \$3.8 million to ratepayers through a one-time decrease in FCA charges in September 2023.³⁰

C.4. 2023 FCA (Docket No. E002/AA-22-179)

On May 2, 2022, Xcel filed its 2023 forecast petition, in Docket No. E002/AA-22-179.³¹ On December 5, 2022 the Commission issued an order approving Xcel's 2023 forecast.³² The approved forecasted FCA costs for 2023 were \$1,069.2 million or \$38.96/MWh.

On May 19, 2023, Xcel submitted a compliance filing proposing to reduce the 2023 forecast by \$30 million.³³ Xcel also proposed reducing 2023 FCA rates to recover \$10 million less in each of July, August, and September, to reflect this lower forecast. This update was *de facto* approved, as no party objected during the 30-day notice period established under the FCA process. Xcel submitted another rate adjustment proposal on November 21, 2023 to reduce FCA rates by \$5 million per month from January-August 2024.³⁴ That proposal was likewise *de facto* approved.

On March 1, 2024, Xcel submitted its 2023 true-up petition proposing to refund an additional \$86 million from April to December 2024, which Xcel implemented on April 1, 2024.³⁵

C.5. 2024 FCA (Docket No. E002/AA-23-153) (Instant Docket)

On May 1, 2023, Xcel filed its 2024 forecast petition, in Docket No. E002/AA-23-153.³⁶ On November 9, 2023, the Commission approved Xcel's 2024 forecast petition and revised adjustment factors as

³⁰ *In the Matter of the Petition of Northern Sates Power Company for Approval of the 2022 Annual Fuel Forecast and Monthly Fuel Cost Charges*, Compliance Filing, Xcel Energy, July 10, 2023, Docket No. E002/AA-21-295, (eDockets) [20237-197344-01](#).

³¹ *In the Matter of the Petition of Northern Sates Power Company for Approval of the 2023 Annual Fuel Forecast and Monthly Fuel Cost Charges*, Petition, Xcel Energy, May 5, 2022, Docket No. E002/AA-22-179, (eDockets) [20225-185476-01](#).

³² *In the Matter of the Petition of Northern Sates Power Company for Approval of the 2023 Annual Fuel Forecast and Monthly Fuel Cost Charges*, Order, Minnesota Public Utilities Commission, December 5, 2022, Docket No. E002/AA-22-179, (eDockets) [202212-191109-01](#).

³³ *In the Matter of the Petition of Northern Sates Power Company for Approval of the 2023 Annual Fuel Forecast and Monthly Fuel Cost Charges*, Compliance Filing – Rate Adjustment Proposal to Monthly Fuel Cost Charges for the 2023 Forecast Period, Xcel Energy, May 19, 2023, Docket No. E002/AA-22-179, (eDockets) [20235-196011-01](#).

³⁴ *In the Matter of the Petition of Northern Sates Power Company for Approval of the 2023 Annual Fuel Forecast and Monthly Fuel Cost Charges*, Compliance Filing – Rate Adjustment Proposal to Monthly Fuel Cost Charges for the 2023 Forecast Period, Xcel Energy, November 21, 2023, Docket No. E002/AA-22-179, (eDockets) [202311-200652-02](#).

³⁵ *In the Matter of the Petition of Northern Sates Power Company for Approval of the 2023 Annual Fuel Forecast and Monthly Fuel Cost Charges*, Annual True-Up Compliance Filing, Xcel Energy, March 1, 2024, Docket No. E002/AA-22-179, (eDockets) [20243-204018-01](#).

³⁶ *In the Matter of the Petition of Northern Sates Power Company for Approval of the 2024 Annual Fuel Forecast and Monthly Fuel Cost Charges*, Petition, Xcel Energy, May 1, 2023, Docket No. E002/AA-23-153, (eDockets) [20235-195484-01](#).

reflected in Xcel's October 23, 2023 filing, subject to true-up.³⁷ In addition, the Commission required Xcel to report in future FCA true-ups, on the:

- Assumed versus actual wind capacity factors for the true-up year and three prior years, with and without curtailment, for each Xcel-owned wind facility; and
- Prudence of its management of unplanned outages at Sherco 1, King, and Sherco 3 in Xcel's next FCA true-up petition.

On November 17, 2023, Xcel submitted a compliance filing with FCA rates to be implemented on January 1, 2024.³⁸

On September 30, 2024, Xcel submitted a compliance filing proposing to refund ratepayers \$30.5 million for over-collected fuel costs beginning November 1, 2024.³⁹ This update was *de facto* approved, as no party objected during the 30-day notice period established under the FCA process.

On March 3, 2025, Xcel submitted the instant 2024 true-up petition for 2025, proposing to refund to customers an additional \$94.2 million in fuel cost over-collection, \$176 million of nuclear production tax credit transactions, and \$48 million related to Sherco Unit 3 outage replacement power costs, for a total proposed refund to customers of \$318 million.⁴⁰

³⁷ *In the Matter of the Petition of Northern Sates Power Company for Approval of the 2024 Annual Fuel Forecast and Monthly Fuel Cost Charges*, Order, Minnesota Public Utilities Commission, November 9, 2023, Docket No. E002/AA-23-153, (eDockets) [202311-200373-01](#).

³⁸ *In the Matter of the Petition of Northern Sates Power Company for Approval of the 2024 Annual Fuel Forecast and Monthly Fuel Cost Charges*, Compliance Filing, Xcel Energy, November 17, 2023, Docket No. E002/AA-23-153, (eDockets) [202311-200577-01](#).

³⁹ *In the Matter of the Petition of Northern Sates Power Company for Approval of the 2024 Annual Fuel Forecast and Monthly Fuel Cost Charges*, Compliance Filing – Rate Adjustment Proposal to Monthly Fuel Cost Charges for the 2024 Forecast Period, Xcel Energy, September 30, 2024, Docket No. E002/AA-23-153, (eDockets) [20249-210591-01](#).

⁴⁰ Instant FCA True-Up Petition at 1-2.

C.6. 2025 FCA (Docket No. E002/AA-24-63)

On May 1, 2024, Xcel filed its 2025 forecast petition, in Docket No. E002/AA-24-63 requesting approval of its 2025 FCA forecast and rates, subject to true-up.⁴¹ On November 8, 2024, the Commission issued an Order authorizing Xcel to implement its 2025 FCA Forecast, based on revised forecasted sales of 26,788,077 MWh and revised forecasted costs of \$891,200,000, for the Minnesota jurisdiction.⁴² In addition, the Commission required Xcel to provide calculations of proposed net cost of generation rate as an attachment in the fuel forecast dockets, in addition to approving various other forecast-related items including land sale gains and credits, Community Solar Gardens forecast and generation rate, net cost of generation rate, Tariff Sheet language changes, and biomass buyout costs.⁴³

On November 18, 2024, Xcel submitted a compliance filing with updated FCA rates to be implemented on January 1, 2025.⁴⁴

III. SUMMARY OF THE TRUE-UP PETITION IN THE INSTANT DOCKET

As detailed above, the March 3, 2025 true-up petition requested the Commission approve Xcel's proposed refund to customers for its over-collected 2024 Fuel Clause Adjustment costs of \$128.1 million, \$30.5 million of which has already been refunded through the Company's mid-year adjustment. Xcel also proposed to refund to customers \$176 million in nuclear production tax credits and \$48 million related to Sherco Unit 3's November 2011 outage replacement power costs.⁴⁵

Actual collections of \$1,019.4 million were in-line with forecasted collections of \$1,022.75 million, or 0.3% lower than forecasted, and the Company's actual sales were also only 0.3% lower than forecasted. However, actual FCA costs of \$894.69 million were significantly lower than forecasted costs of \$1,022.75 million, or \$128.06 million or 12.5% lower. In summary, actual unit costs were \$33.42 per MWh compared to the forecast of \$38.10 per MWh, or 12.3% below forecast, leading to the overcollection.⁴⁶

As noted above, Xcel already implemented a \$30.5 million mid-year adjustment refund to account in part for the overcollection.⁴⁷ As Xcel under-collected \$3.3 million due to lower than forecasted sales, an additional \$94.2 million of refunds are needed related to FCA costs and fuel collections, in addition to the \$176 million in nuclear PTCs and \$48 million related to Sherco 3. To process this additional refund,

⁴¹ *In the Matter of the Petition of Northern Sates Power Company for Approval of the 2025 Annual Fuel Forecast and Monthly Fuel Cost Charges*, Petition, Xcel Energy, May 1, 2024, Docket No. E002/AA-24-63, (eDockets) [20245-206297-02](#).

⁴² *In the Matter of the Petition of Northern Sates Power Company for Approval of the 2025 Annual Fuel Forecast and Monthly Fuel Cost Charges*, Order, Minnesota Department of Commerce, November 8, 2024, Docket No. E002/AA-24-63, (eDockets) [202411-211745-01](#).

⁴³ *Id.*

⁴⁴ *In the Matter of the Petition of Northern Sates Power Company for Approval of the 2025 Annual Fuel Forecast and Monthly Fuel Cost Charges*, Compliance Filing, Xcel Energy, November 18, 2024, Docket No. E002/AA-24-63, (eDockets) [202411-212067-01](#).

⁴⁵ Instant FCA True-Up Petition at 1-2.

⁴⁶ Instant FCA True-Up Petition at 5, Table 1.

⁴⁷ Instant FCA True-Up Petition at 6.

Xcel proposed to update FCA rates effective April 1, 2025 and refund the remainder of the \$318 million to customers over the following 12 months, through March 2026.⁴⁸

Under this proposal, the true-up filing will still be subject to the standard Commission review process approved in the FCA reform docket, with any revisions or updates to be implemented on September 1, 2025 following the Commission's August 2025 Order regarding the instant petition. Xcel would implement the proposed refund through the proposed tariff modification in Part A, Attachment 8 of the petition. As noted above, Xcel provisionally implemented the refund on April 1, 2025.

A.1. FCA Overview

The Department summarizes Xcel's actual versus forecasted 2024 FCA costs and collections in the table below, which is reproduced from Table 1 in the instant petition:

**Department Table 2:
Summary of Xcel's 2024 Minnesota FCA Costs and Collections⁴⁹**

	Actual	Forecast	\$ Difference	% Difference
Total FCA Costs	\$894,690,000	\$1,022,748,000	\$(128,058,000)	-12.52%
MWh Sales	26,774,079	26,842,355	(68,276)	-0.25%
Cost/MWh	\$33.42	\$38.10	\$(4.68)	-12.28%
Fuel Collections	\$1,019,438,000	\$1,022,748,000	\$(3,310,000)	-0.32%
Mid-Year Adjustment Refund	\$(30,533,000)			
(Over) Under-Recovery	\$(94,216,000)			
Nuclear PTC Credits	\$(175,612,000)			
Sherco 3 2011 Refund	\$(47,957,000)			
Net Balance – 2023	\$175,000			
Total (Over) Under-Recovery*	\$(317,610,000)			

*Does not include \$30.5 Mid-Year Adjustment Refund already refunded to customers

A.2. Major Categories

The cost and offsetting credit/revenue components of the Company's actual and forecasted fuel and purchased power costs recoverable through the FCA can be broken into several major categories, as summarized in the following table.

⁴⁸ *Id.*

⁴⁹ Figures from Instant FCA True-Up Petition at 5, Table 1

**Department Table 3: Xcel's Actual vs. Forecasted
2024 FCA Costs and Revenues – Major Categories (\$000)**

		Actuals ⁵⁰	Forecast ⁵¹	\$ Δ	% Δ
1a	Coal	\$139,293	\$174,776	\$(35,483)	-20.3%
1b	Wood/RDF	\$8,731	\$9,149	\$(418)	-4.6%
1c	Natural Gas CC	\$169,165	\$190,094	\$(20,929)	-11.0%
1d	Natural Gas & Oil CT	\$34,970	\$35,776	\$(806)	-2.3%
1e	Nuclear	\$104,608	\$113,371	\$(8,763)	-7.7%
1 = Σ(1a-1e)	Xcel's Generating Stations	\$456,767	\$523,166	\$(66,399)	-12.7%
2a	LT Purchased Energy (Gas)	\$118,274	\$142,457	\$(24,183)	-17.0%
2b	LT Purchased Energy (Solar)	\$55,139	\$57,382	\$(2,243)	-3.9%
2c	LT Purchased Energy (Wind)	\$224,133	\$216,107	\$8,026	-3.7%
2d	LT Purchased Energy (Other)	\$191,029	\$195,042	\$(4,013)	-2.1%
2 = Σ(2a-2d)	LT Purchased Energy	\$588,575	\$610,988	\$(22,413)	-3.7%
3	Comm. Solar Gardens (CSG)	\$222,637	\$329,263	\$(106,626)	-32.4%
4	ST Market Purchases	\$73,226	\$10,420	\$62,806	602.7%
5	MISO Costs	\$169,317	\$188,538	\$(19,221)	-10.2%
6 = Σ(1-5)	Total System Costs	\$1,510,522	\$1,662,375	\$(151,853)	-9.1%
7	Sales Revenues	\$(309,911)	\$(291,989)	\$(17,922)	-6.1%
8	CSG-Above Market Costs	\$(180,137)	\$(249,377)	\$69,240	-27.8%
9	RC & Windsource	\$(33,794)	\$(42,334)	8,540	20.2%
10 = Σ(6-9)	Net System FCA Costs	\$986,680	\$1,078,675	\$(91,995)	-8.5%
11	MN Juris. Sales MWh	27,722,192	28,147,613	(425,421)	-1.5%
12	RC & Windsource MWh	(948,113)	(1,305,258)	357,145	27.4%
13 = Σ(11-12)	Net MN Sales MWh	26,774,079	26,842,355	(68,276)	-0.3%
14	MN FCA Costs	\$702,990	\$764,429	\$(61,439)	-8.0%
15	CSG-Above Mkt. Costs	\$180,010	\$249,377	\$(69,367)	-27.8%
16	Biomass Buyouts	\$8,938	\$8,942	\$(4)	-0.0%
17	Sherco 3 Outage Rep. Ener. Costs	\$(47,957)	–	\$(47,957)	–
18	Nuclear PTCs	\$(175,612)	–	\$(175,612)	–
19 = Σ(14-18)	Net MN FCA Costs	\$671,121	\$1,022,748	\$(351,627)	-34.4%
20 = 19÷13	Net MN FCA Costs (\$/MWh)	\$25.07	\$38.10	\$(13.03)	-34.2%

In explaining the results shown in the table above, Xcel pointed to lower-than-forecasted: (a) natural gas prices, (b) congestion costs, (c) coal costs and, (d) Community Solar Gardens (CSG) costs, due to lower than forecasted volume and average CSG rate. Xcel also noted congestion costs remain high compared to historical periods, but that strong performance from its combined-cycle fleet led to

⁵⁰ Instant FCA True-Up Petition, Part A, Attachments 1 and 2.

⁵¹ *In the Matter of the Petition of Northern States Power Company for Approval of the 2024 Annual Fuel Forecast and Monthly Fuel Charges*, Reply Comments, Xcel Energy, July 31, 2023, Docket No. E002/AA-23-153, (eDockets) [20237-197887-02](#), Part A, Attachment 1.

higher-than-forecasted asset-based sales revenue.⁵² Xcel noted that lower-than-forecasted gas prices were an over-riding factor in these results:

For 2024, natural gas prices fell following our July 31, 2023 Reply Comments filing, and stayed lower than forecast for all of 2024, with the exception of January, leading to lower fuel costs for natural gas generation than forecast for the year. Congestion costs fell in response to low natural gas prices, along with on-going transmission system improvements, and led to lower congestion costs than forecast. Low natural gas prices contributed to lower coal generation than forecast, and lower coal costs.⁵³

IV. DEPARTMENT ANALYSIS

The Department analyzes Xcel's true-up petition and reviews individual components of Xcel's actual 2024 FCA costs below.

A. NATURAL GAS

Xcel's actual costs for owned natural gas generation were \$204.14 million, 9.6% (\$21.7 million) lower than forecasted. Actual generation from owned natural gas was 8,821 GWh, 34.7% higher than forecasted, with the lower-than-forecasted owned gas generation costs attributable to actual unit costs of \$23.14/MWh being 32.9% lower than forecasted. The Company reported lower natural gas prices resulted in lower costs for natural gas even while it had more gas generation than forecasted.⁵⁴ As shown in Table 3 above, fuel costs for Xcel's natural gas combined cycle (CC) plants were \$20.9 million lower than forecasted and fuel costs for Xcel's (natural gas and oil) combustion turbines were also slightly lower than forecasted by about \$0.8 million.

Xcel's actual costs for purchased natural gas generation (gas PPAs) were \$118.3 million, 17% (\$24.2 million) lower than forecasted. Actual generation from gas PPAs was 4,779 GWh, 8.9% higher than forecasted, with lower-than-forecasted gas PPA costs attributable to actual unit costs of \$24.75/MWh being 23.7% lower than forecasted despite greater generation.⁵⁵

The Department concludes Xcel has reasonably explained the variances between actual and forecasted natural gas costs. The Department does not have any objections to Xcel's proposed actual 2024 natural gas recoveries, but continues to note the apparent difficulty in forecasting commodity prices over the short term. The Department also continues to note the extremely significant impact of gas prices on the electricity market, not only due to their direct effect on the cost of gas generation, but also their knock-on effects due to gas generation's strong impact on setting LMPs.

⁵² Instant FCA True-Up Petition at 5.

⁵³ *Id.*

⁵⁴ Instant FCA True-Up Petition at 10-11.

⁵⁵ Instant FCA True-Up Petition at 13.

B. COMMUNITY SOLAR GARDENS (CSG)

Actual 2024 CSG costs were \$222.6 million, or \$106.6 million (32.4%) lower than forecasted. Actual unit costs were \$140.38/MWh, or \$2.04/MWh (1.4%) lower than forecasted. The primary reason for lower-than-forecasted CSG costs was actual generation of 1,586 GWh being 726 GWh (31.4%) lower than forecasted. Xcel attributed the lower CSG generation to lower than forecasted CSG installations, due to completed projects being lower than forecast.⁵⁶ Xcel provided additional information on CSGs in Part C, Attachments 8-10.

The Department concludes Xcel has reasonably explained the variances between actual and forecasted CSG costs and does not have any objections to Xcel's proposed actual 2024 CSG recoveries.

C. COAL

Actual 2024 Company-owned coal generation costs were \$139.3 million, \$35.5 million (20.3%) lower than forecasted. Actual unit costs were \$25.27/MWh, or \$1.63/MWh (6.1%) lower than forecasted. Xcel attributed lower-than-forecasted generation (5,513 versus 6,497 GWh, or 15.1% lower) due to longer-than-forecasted planned outages, in addition to lower gas prices leading to lower LMPs. The Company also stated lower realized coal and rail costs contributed to lower unit costs.⁵⁷

The Department concludes Xcel has reasonably explained the variances between actual and forecasted coal costs. The Department does not have any objections to Xcel's proposed actual 2024 coal recoveries and will further discuss the outages referenced in this section below.

D. NUCLEAR

Actual 2024 Company-owned nuclear generation costs, excluding outage costs, were \$104.6 million, \$8.8 million (7.7%) lower than forecasted. The variance was primarily attributable to Xcel's two outages at the Company's Prairie Island Nuclear Generating Plant, discussed further below.

D.1. Nuclear Outages

The first outage (discussed and still under review in Docket No. E002/AA-22-179) began in fall of 2023 and affected both Units 1, which returned to service in late January 2024, and Unit 2, which returned to service in early March 2024. The Commission in its January 31, 2025 Order in the aforementioned Docket,⁵⁸ denied Xcel's petition for reconsideration of a November 15, 2024 Commission Order referring the "matter to the Minnesota Office of Administrative hearings for a contested case to determine the appropriate refund amount due to customers due to Xcel's lack of prudence regarding

⁵⁶ Instant FCA True-Up Petition at 14.

⁵⁷ Instant FCA True-Up Petition at 9-10.

⁵⁸ *In the Matter of Xcel Energy's Petition for Approval of its 2023 Annual Fuel Forecast and Monthly Fuel Cost Charges*, Order Denying Petition for Reconsideration and Granting Request for Clarification, Minnesota Public Utilities Commission, January 31, 2025, Docket No. E002/AA-22-179, (eDockets) [20251-214793-01](#).

the October 2023 outage at Prairie Island.”⁵⁹ As a result the 2023 and 2024 costs related to the October 2023 outage at Prairie Island will be addressed in the contested case in Docket No. E002/AA-22-179.

The second outage was an extension of a planned refueling outage at Prairie Island Unit 1 and extended beyond its planned 63 days, returning to service on January 17, 2025. Among the unexpected issues leading to delays in the planned outage, Xcel reported “difficulties with bolt removal and insertion” and that “both reactor coolant pumps indicated high vibrations and one pump indicated seal leakage” requiring both pumps needing to be shut down for seal replacement, though leakage persisted until the seal was replaced again, after which “no further leakage was identified” and the unit returned to service on January 17, 2025.⁶⁰

In total the outage lasted 120 days – 57 days longer than the initial 63-day plan – 103 of which fell in calendar-year 2024. The Department notes the information regarding this outage provided by the Company in Part C, Attachment 4b of its filing⁶¹ does not include a description of outage-related activities and change in energy costs for calendar-year 2025, as a result, the Department’s comments are focused on the costs related to this outage in 2024. The change in energy costs related to this outage as reported by the Company totaled **[TRADE SECRET DATA HAS BEEN EXCISED]** for the 103 outage days in 2024.⁶²

In response to Department information requests regarding this issue, the Company provided additional information regarding the outage and delays. The planned work during the outage included replacement of “reactor vessel baffle former bolt and clevis bolt,” which were original to the plant at approximately 50 years old, and due for replacement within 10 years of a 2014 license renewal material inspection – hence the 2024 replacement during the planned outage. Over one third of the replaced bolts (96 of 283) required additional work resulting from issues, and other delays arose related to tooling equipment and stoppages related to repairs. This bolt replacement work began on October 1, 2024 and ended on November 11, 2024, and its actual capital costs of \$24 million were ultimately below the \$24.4 million budgeted.⁶³

Xcel also stated in its response to information requests that during startup activities on December 3, 2024 following replacement of seals on both Reactor Coolant Pumps (RCPs) that lasted from September 23 to November 18, 2024, the RCPs “indicated high vibrations, and one pump indicated seal leakage.” The Company described multiple steps taken to address the issue over the following weeks, including un- and re-coupling the pumps from the engines and replacing the seal, during which “plant personnel identified a seal leak on a Residual Heat Removal (RHR) pump.” Following restoration of

⁵⁹ *In the Matter of Xcel Energy’s Petition for Approval of its 2023 Annual Fuel Forecast and Monthly Fuel Cost Charges*, Order Approving Fuel-Clause True-Up Report, Requiring Additional Filings, Finding Imprudence, and Notice of and Order for Hearing, Minnesota Public Utilities Commission, November 15, 2024, Docket No. E002/AA-22-179, (eDockets) [202411-211999-01](#) at Order Point 6.

⁶⁰ Instant FCA True-Up Petition at 12-13.

⁶¹ Instant FCA True-Up Petition, Part C, Attachment 4b at 2.

⁶² *Id.*

⁶³ Department Attachment 1 at 2-3.

normal operating temperature and pressure, the new RCP seal was found to not be performing adequately and was replaced with “a new type of seal design,” after which the pump was restarted, and “no further leakage was identified.” However, other issues arose including blockage to the reactor coolant system and replacement of a “seal injection filter,” after which the plant returned to normal operations on January 14, 2025. The Company is still assessing capital costs related to the RCP seal replacements, for which the vendor may be responsible, and incurred no other capital costs for the other items discussed in this paragraph.⁶⁴

In discussing the causes related to the issues described above, the Company attributes them to being “driven by equipment failures,” and that it “did not identify or report any human performance events to [the Institute of Nuclear Power Operations (INPO)] during the Unit 1 or Unit 2 outages that affected the outage duration.”⁶⁵

In response to the Department question as to why ratepayers should pay for replacement power costs related to the extended Unit 1 outage, the Company provided the following:

With respect to replacement power costs, ratepayers should pay the full costs of the 2024 Prairie Island outages discussed in this response because those costs were prudently incurred. In the course of a planned outage, it is expected that additional work and/or longer-than-anticipated timelines will be needed. Moreover, when equipment issues are discovered, it is critical that these issues are resolved prior to placing the plant back online to ensure safety and reliability of the plant. The outage delays described here were a result of discovering equipment issues identified during shutdown that we are required to resolve prior to bringing the unit back online. For example, in the case of the reactor vessel O-ring and RCP seal replacements, had we placed the unit back online with these issues ongoing, we would have violated license requirements. These license requirements are in place to ensure worker and public safety while the plant is at power. In addition to these safety considerations, plant reliability and predictability similarly require that we handle known issues that require shutdown prior to restarting the plant. Our customers expect the plant to run for a full 24-month cycle. Issues discovered during an outage that could jeopardize reliability are repaired to prevent a future maintenance outage between refueling outages and save those future additional outage costs. Therefore, ratepayers should pay for the full replacement power costs incurred as a result of the outage because the Company prudently undertook all outage activity in order to ensure the safe and reliable return to service of its plants. The Company reiterates that it is not seeking any additional outage costs in its 2025 case.⁶⁶

⁶⁴ Department Attachment 1 at 3-4.

⁶⁵ Department Attachment 1 at 6.

⁶⁶ Department Attachment 1 at 6-7.

Based on the Department's review of Xcel's reporting and resulting information provided in the petition and its response to Department questioning, the Department concludes that Xcel reasonably explained the delays to the planned outage resulting from equipment issues that were incurred and addressed to ensure safe and reliable operations of the Prairie Island Unit 1 facility.

The Department requests Xcel provide in its Reply Comments, next FCA filing, or next true-up filing – whichever comes first – the determination of whether the vendor of equipment related to the RCP seal replacements may be responsible for any issues described by the Company and how any vendor credits will be used to offset ratepayer costs for this issue.

D.2. Nuclear Production Tax Credits (PTCs)

The 2022 Inflation Reduction Act (IRA) extended and expanded production tax credits (PTCs) and investment tax credits (ITCs) benefits for clean energy resources and created a new PTC for nuclear resources. Beginning in 2024, "nuclear facilities are eligible for base credits of 0.3 cents/kWh generated by existing facilities" up to 1.5 cents/kWh if certain requirements are met. While Xcel reports it is still determining final credits and compliance costs related to the PTCs, it would like to return credits to customers totaling \$175.8 million in the 2024 true-up and address any final adjustments in its 2025 Fuel Forecast True-Up Report in Docket No. E002/AA-24-63. As of the time of Xcel's filing, the Company was finalizing the execution of the sale of the 2024 nuclear PTCs, and accounts for the inclusion of PTC credits refunded to customers beginning in May 2025 rather than April.⁶⁷

Part A, Attachment 10 of the petition includes a tracker for the PTCs and supporting calculations.⁶⁸ The Department reviewed the calculations provided by the Company and supports refunding of the \$175.8 million in nuclear PTCs subject to potential true-up in Xcel's March 1, 2026 True-Up Report.

E. NON-NUCLEAR GENERATION OUTAGES

Part C, Attachment 3 of the petition provides a narrative regarding plant operation-and-maintenance contractor performance and operational initiatives. Part C, Attachment 4 provides the following information for each unplanned (forced) outage: primary reason, start and end date, equipment causing the outage, description of equipment failure, change in energy costs, and steps taken to prevent reoccurrence. Part C, Attachment 5a, provides actual versus forecasted unplanned outage costs and MWhs. Part C, Attachment 5b, provides actual versus forecasted planned outage costs and MWh. In addition, Part C, Attachments 5c and 5d, provide 4-year comparisons of forecasted outage costs to actuals for unplanned and unplanned outages, respectively.

E.1. Non-Nuclear Unplanned Outages

The Department summarizes Xcel's 2024 actual versus forecasted unplanned outages for non-nuclear units below:

⁶⁷ Instant FCA True-Up Petition at 17-18.

⁶⁸ Instant FCA True-Up Petition Part A, Attachment 10.

Department Table 4:
Xcel 2024 Non-Nuclear Unplanned Outages⁶⁹

Unit	Type of Plant	Fuel	Expected Retirement	Actual MWh	Forecasted MWh	Difference
Black Dog	CT*, CC^	Natural Gas	TBD	[TRADE SECRET DATA HAS BEEN EXCISED]		
High Bridge 1	CC					
High Bridge 2						
Riverside 1						
Riverside 2						
Natural Gas Subtotal						
King 1	Steam	Coal	2028			
Sherco 1			2026			
Sherco 3			2030			
Coal Subtotal						
Total						

*CT = Combustion Turbine

^CC = Combined Cycle

As noted above, the November 9, 2023 Order in Docket No. E002/AA-23-153⁷⁰ requires Xcel to report the following in future FCA true-ups: prudence of its management of unplanned outages at Sherco 1, King, and Sherco 3 in Xcel's next FCA true-up petition. Xcel provided information related to this requirement in Part C, Attachment 3, page 3. As shown in the table above, these facilities are expected to shut down in the near-to-medium term.

Unplanned outages at Xcel's coal units were **[TRADE SECRET DATA HAS BEEN EXCISED]** than forecasted, whereas unplanned outages at Xcel's natural gas units were **[TRADE SECRET DATA HAS BEEN EXCISED]** than forecasted. As noted above, Xcel reports on each unplanned (forced) outage in Part C, Attachment 4. The Department reviewed Xcel's reporting for gas and coal units in this attachment and concluded Xcel has reasonably explained the variance between its actual versus forecasted unplanned outages at its gas and coal units.

⁶⁹ Figures from Instant FCA True-Up Petition, Part C, Attachment 5a.

⁷⁰ *In the Matter of the Petition of Northern Sates Power Company for Approval of the 2024 Annual Fuel Forecast and Monthly Fuel Cost Charges*, Order, Minnesota Public Utilities Commission, November 9, 2023, Docket No. E002/AA-23-153, (eDockets) [202311-200373-01](#).

E.1.1. Sherco Unit 3 Replacement Power Costs Refund

As described in the Commission’s December 24, 2024 Order in Docket Nos. E002/GR-12-961 *et al.*,⁷¹:

In November 2011, one of the three generating units (Sherco Unit 3) at the Sherburne County Generating Station (Sherco) catastrophically failed. Due to the failure, Sherco Unit 3 was offline until October 2013. During this time, Xcel purchased replacement power to meet the deficit caused by the outage. Xcel recovered the cost of this replacement power from ratepayers via the Fuel Clause Adjustment (FCA) mechanism.⁷²

Following a lawsuit of Xcel and its insurers against General Electric Company (GE), the manufacturer of Sherco Unit 3, a jury ultimately found Xcel negligent in operating the Unit and apportioned 48% of the fault for the incident to Xcel. Following Commission referral of this matter to the Office of Administrative Hearings, an Administrative Law Judge (ALJ) “determined that Xcel failed to operate and maintain Sherco Unit 3 in a reasonable and prudent manner consistent with good utility practices,” with which the Commission concurred in its Order.⁷³ The Commission further Ordered the “entire amount of the GE Litigation settlement proceeds against the energy replacement costs to be refunded to Minnesota ratepayers, with interest... through the FCA.”⁷⁴

In Part A, Attachment 9 to the instant Petition, Xcel provides its calculation of the Sherco 3 refund, with interest, totaling \$47,956,813.⁷⁵ Xcel initially proposed in the instant Petition to refund this \$48 million to customers over 12 months beginning April 1, 2025 along with other FCA refund costs. However, Xcel subsequently requested and, on March 27, 2025 the Commission approved Xcel’s modified proposal to refund the entire \$48 million to ratepayers in one month beginning April 1, 2025. As of the writing of these Comments, the final Order regarding this matter has not been filed to eDockets. Xcel provided an updated FCA tariff sheet with the revised 2025 fuel cost factors accounting for this change in its March 31, 2025 Compliance Filing.⁷⁶

⁷¹ *In the Matter of the Application of Northern States Power Company for Authority to Increase Rates for Electric Service in the State of Minnesota, et al.*, Order Adopting Administrative Law Judge Report as Modified, Requiring Refund of Certain Disallowed Replacement Power Costs, and Requiring Further Action, Minnesota Public Utilities Commission, December 24, 2024, Docket Nos. E999/AA-18-373, E999/AA-17-492, E999/AA-16-523, E999/AA-14-579, E002/GR-13-868, E999/AA-13-599, and E002/GR-12-961 (eDockets) [202412-213317-01](#) (Hereinafter “December 2024 Sherco 3 Order”).

⁷² December 2024 Sherco 3 Order at 2-3.

⁷³ December 2024 Sherco 3 Order at 3-4 and Order Point 2.

⁷⁴ December 2024 Sherco 3 Order at Order Point 4.

⁷⁵ Instant FCA True-Up Petition, Part A, Attachment 9 at 2.

⁷⁶ *In the Matter of the Petition of Northern States Power Company for Approval of the 2024 Annual Fuel Forecast and Monthly Fuel Charges*, Compliance Filing – 2024 Annual Fuel Forecast and Monthly Fuel Cost Charges, Xcel Energy, March 31, 2025, Docket No. E002/AA-23-153, (eDockets) [20253-217035-01](#).

Xcel, in its approved Alternative Decision Option proposal to refund these funds over one month, also provided updated 2024 Fuel, Purchased Power and Other Costs; 2025 Monthly Fuel Clause Charges; and 2024 Under-/Over-Recovered Expense.⁷⁷

Given the Commission has approved the Company's request to refund the \$48 million Sherco 3 refund in one lump sum, the Department does not recommend any further Commission action regarding this item. For the purpose of clarity, the Department requests Xcel in its Reply Comments provide a narrative explanation of the Sherco 3 refund and the changes between the current FCA True-Up Petition as-filed and the lump-sum refund request approved by the Commission.

E.2. Planned Outages

The Department summarizes Xcel's 2024 actual versus forecasted planned outages for non-nuclear units below:

**Department Table 5:
Xcel 2024 Non-Nuclear Planned Outages⁷⁸**

Unit	Type of Plant	Fuel	Expected Retirement	Actual MWh	Forecasted MWh	Difference
Black Dog	CT*, CC^	Natural Gas	TBD	[TRADE SECRET DATA HAS BEEN EXCISED]		
High Bridge 1	CC					
High Bridge 2						
Riverside 1						
Riverside 2						
Natural Gas Subtotal						
King 1	Steam	Coal	2028			
Sherco 1			2026			
Sherco 3			2030			
Coal Subtotal						
Total						

*CT = Combustion Turbine

^CC = Combined Cycle

Planned outages were [TRADE SECRET DATA HAS BEEN EXCISED] than forecasted. The Department reviewed the information provided by the Company in Part C, Attachment 4b of its Petition, including the outage category, primary reason for the outage, start and end dates, duration, description of

⁷⁷ In the Matter of 2024 Annual Fuel Forecast and Monthly Fuel Cost Charges, Alternative Decision Option – Sherco Unit 3 Replacement Costs-Refund, Other Filing, Xcel Energy, March 24, 2025, Docket Nos. E999/AA-18-373, E999/AA-17-492, E999/AA-16-523, E999/AA-14-579, E002/GR-13-868, E999/AA-13-599, E002/GR-12-961, E002/AA-23-153, (eDockets) [20253-216764-01](#) at Part A, Attachments 2-4.

⁷⁸ Figures from Instant FCA True-Up Petition, Part C, Attachment 5b.

actions taken during the outage, and change in energy costs due to the outage. Despite Xcel's actual 2024 non-nuclear planned outages being different from forecasted, the Department did not identify any objections in reviewing the information on each outage. The Department therefore concludes that Xcel has reasonably explained the variance between its actual and forecasted planned non-nuclear outages.

E.3. Outages and Maintenance

In addition to reviewing Xcel's outages information on a stand-alone basis, the Department reviewed Xcel's generation maintenance expenses as they relate to forced outage costs, as discussed below. Because (1) the amount of generation maintenance expense is linked to a utility's unplanned outages, (2) utilities have an incentive to minimize generation maintenance expense between rate cases, and (3) utilities do not have a strong incentive to minimize the replacement power costs for which they receive flow through recovery. The Department monitors the difference between investor-owned utilities' actual and approved generation maintenance expenses in FCA true-up filings. As part of this review, Xcel is required to include in FCA filings the actual expenses pertaining to maintenance of generation plants, with a comparison to the generation maintenance budget from the utility's most recent rate case.⁷⁹ Xcel's true-up petition provides this information in Part C, Attachment 6.

For the 2024 test year, Xcel's approved Minnesota generation maintenance expense in base rates was \$136.2 million, or \$437,215 higher than 2024 actual generation maintenance expense of \$135.8 million.⁸⁰ On an Xcel (NSP-Minnesota) total basis (before jurisdictional allocations), Xcel's approved test year expense in base rates was \$156.7 million. Xcel's actual total-company generation maintenance expense was \$150.8 million for 2020, \$150.4 million for 2021, \$140.3 million for 2022, \$150.4 million for 2023, and \$156.5 million for 2024, resulting in a five-year average of \$149.7 million. This actual average is \$7.1 million (4.5%) less than Xcel's approved 2024 test year expense.

The Department noted its concern in prior year FCA True-Up comments that Xcel was not spending the amount of maintenance expense being recovered from ratepayers in base rates.⁸¹ While the five-year

⁷⁹ *In the Matter of the Review of the 2006 Annual Automatic Adjustment of Charges for All Electric and Gas Utilities*, Order, Minnesota Public Utilities Commission, February 6, 2008, Docket No. E999/AA-06-1208, (eDockets) [4928266](#) (Hereinafter "06-1208 Order"). This requirement stems from the drastic increase in IOUs' outage costs during FYE06 and FYE07. When a plant experiences a forced outage, the utility must replace the megawatt hours that plant would have produced if it had been operating, usually through wholesale market purchases. The cost of those market purchases flows through the FCA directly to ratepayers. The high level of outage costs in FYE06 and FYE07 raised the issues of whether plants were being maintained appropriately to prevent forced (unplanned) outages, and whether IOUs were spending as much on plant maintenance as they were charging to their customers in base rates. The Commission agreed with the Department and the Large Power Intervenors that "utilities have a duty to minimize unplanned facility outages through adequate maintenance and to minimize the costs of scheduled outages through careful planning, prudent timing, and efficient completion of scheduled work." 06-1208 Order at 5.

⁸⁰ Instant FCA True-Up Petition, Part C, Attachment 6.

⁸¹ *In the Matter of the Petition of Northern Sates Power Company for Approval of the 2023 Annual Fuel Forecast and Monthly Fuel Cost Charges*, Comments, Minnesota Department of Commerce, April 15, 2024, Docket No. E002/AA-22-179, (eDockets) [20244-205419-01](#) at 16-17 (Hereinafter "2023 FCA True-Up Department Comments").

average remains below approved test year expense, the Department is encouraged that 2024 actual maintenance expenses are very close (0.3% less) than 2024 test year maintenance expenses.

The Department continues to strongly encourage Xcel to fully spend the amount of maintenance expense being recovered from rate payers in base rates and will continue to monitor, in future FCA true-up filings, under-spending of maintenance expense provided in base rates, especially as it relates to forced plant outages.

E.4. Non-Nuclear Outages Conclusion

Based on the Department's review of Xcel's reporting and resulting information provided in the petition, the Department concludes that Xcel reasonably explained its actual 2024 outage costs for natural gas and coal.

F. CONGESTION

The true-up petition provides information on congestion and other MISO market costs on pages 5-6, 16, and in Part B (in particular Part B, Attachment 1 and Attachment 2, page 13). The petition also provides information on curtailment, which occurs due to congestion, in Part C, Attachments 1-2.

Actual congestion costs of \$174 million for 2024 were significantly lower (\$85.5 million or 33%) than the \$249.4 million forecast, though higher than the 2023 congestion costs of \$157.8 million. Xcel attributed the congestion decrease to lower natural gas prices and ongoing improvements to the transmission system.⁸²

As in recent FCA filings, Xcel continued to note that although improvements have been made to the transmission system, "congestion costs remain high compared to historical periods" and continued transmission system improvements are needed.⁸³ Xcel provided additional information on congestion costs in Part B, Attachment 1 and Part C, Attachment 1.

The Department concludes Xcel has reasonably explained the variance between actual and forecasted 2024 congestion costs. The Department does not have any objections to Xcel's proposed actual 2024 congestion cost recovery.

G. WIND

G.1. Overview

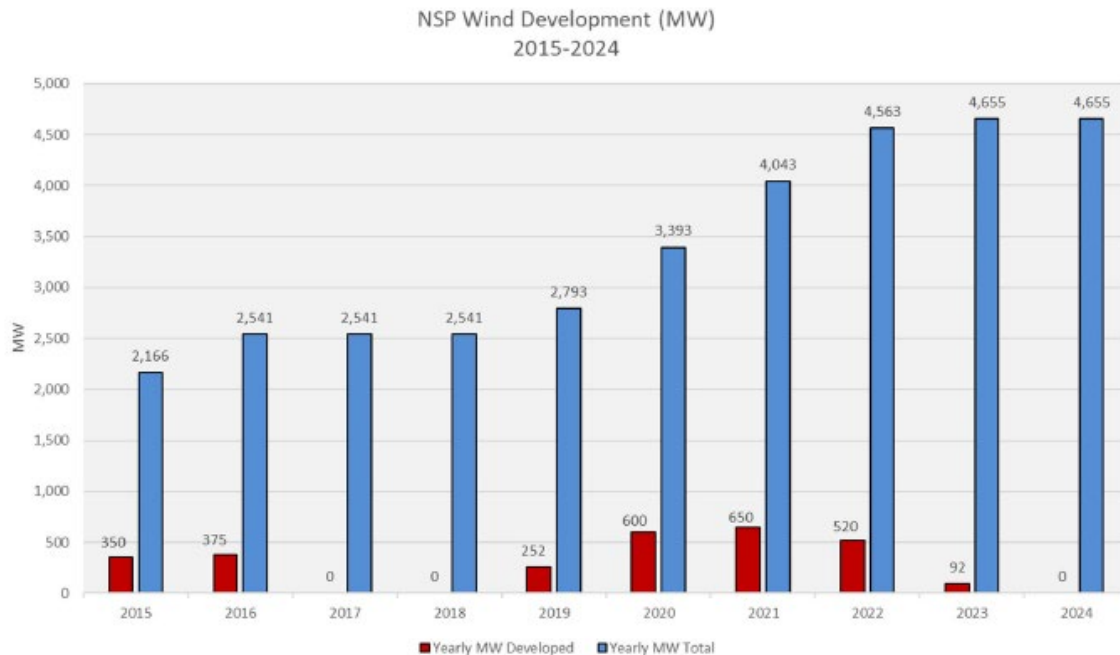
Xcel has added significant wind capacity in recent years, as shown in Chart 1 provided by the Company in Part C, Attachment 1 of its filing,⁸⁴ which the Department reproduces below. As noted in the

⁸² Instant FCA True-Up Petition at 16.

⁸³ Instant FCA True-Up Petition at 5.

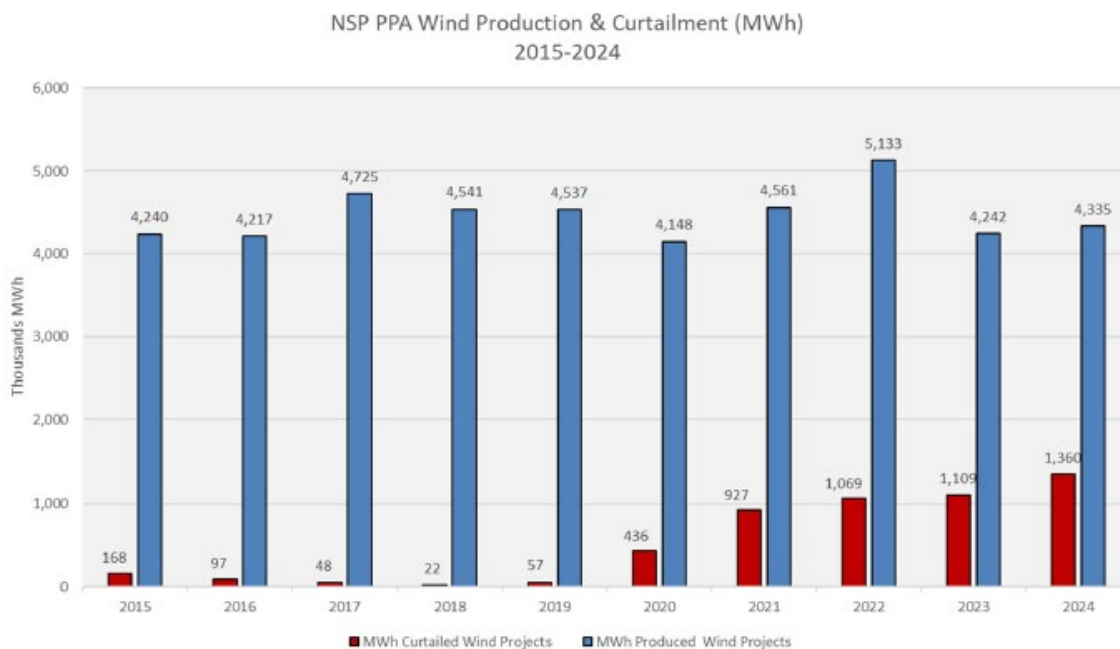
⁸⁴ Instant FCA True-Up Petition, Part C, Attachment 1 at 15.

petition, this chart shows planned and installed Company-owned and PPA wind generation facilities on an incremental and cumulative basis.



G.2. Wind PPAs

Xcel provided Company-total wind production and curtailment from PPAs in Chart 2 provided by the Company in Part C, Attachment 1 of its filing,⁸⁵ which the Department reproduces below.

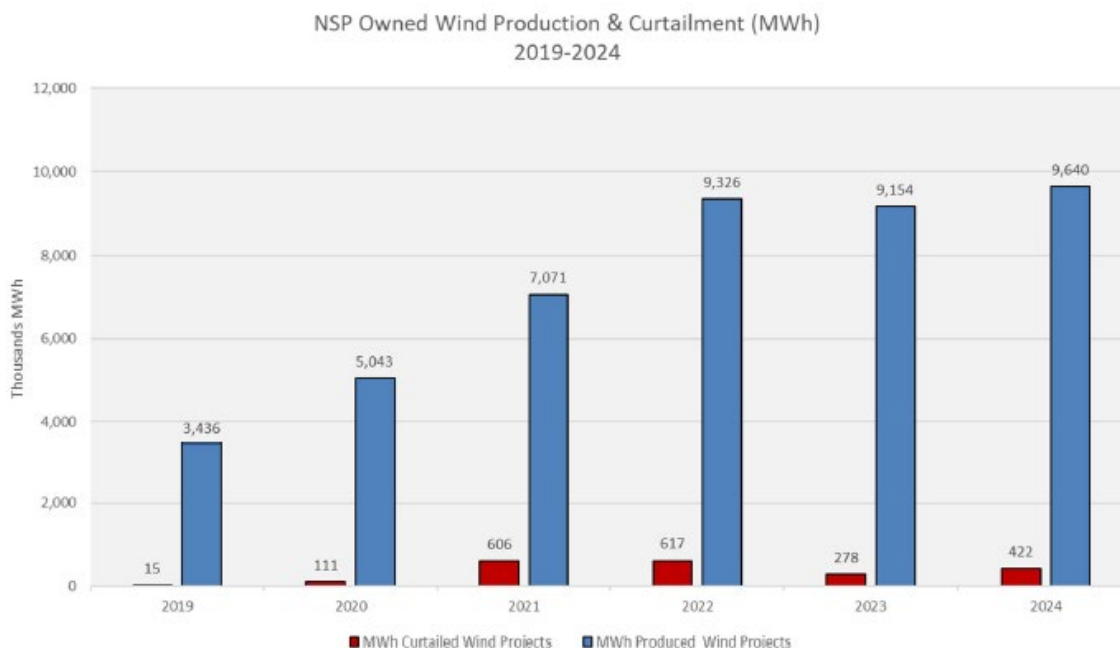


⁸⁵ Instant FCA True-Up Petition, Part C, Attachment 1 at 16.

As shown in the figure above, wind PPA curtailment increased somewhat year-over-year in 2024, but production remained stable, roughly in line with prior years since 2015.

G.3. Xcel-Owned Wind

In response to an Information Request in the prior year's FCA true-up, the Company provided Chart 3 in Part C, Attachment 1 of its filing⁸⁶ reproduced below showing production and curtailment of Xcel-owned wind projects. The Chart shows curtailment up slightly from last year, though wind projects are also up.



When Company-owned wind projects are approved, typically Xcel assumed certain average production levels over the life of the facilities, relative to the overall production capacity. The result is an assumed capacity factor. Since the net economic benefit of wind farms hinges on the amount of energy produced, whether ratepayers in fact benefits from the initial capital costs likewise hinges in large part on the actual capacity factors.

On November 9, 2023, the Commission issued an Order in Docket No. E002/AA-23-153, approving Xcel's 2024 FCA forecast. The November 9, 2023 Order also required Xcel to provide in future FCA true-up reports, for each Xcel-owned wind facility, the assumed versus actual capacity factors for the true-up year and three prior years, both after curtailment and if no curtailment had occurred.⁸⁷ Xcel's true-

⁸⁶ *Id.*

⁸⁷ *In the Matter of the Petition of Northern Sates Power Company for Approval of the 2024 Annual Fuel Forecast and Monthly Fuel Cost Charges*, Order, Minnesota Public Utilities Commission, November 9, 2023, Docket No. E002/AA-23-153, (eDockets) [202311-200373-01](#) at Order Point 5

up petition provide this information in Part C, Attachment 2b. The Department summarizes the information below.

Department Table 6:
Actual vs. Xcel Forecasted Capacity Factors at Xcel-Owned Facilities⁸⁸

Wind Farm Name	Assumed at Acquisition	Actual Generation						Actual Generation + Curtailment Estimate					
		2021	2022	2023	2024	Avg.	%Assumed	2021	2022	2023	2024	Avg.	%Assumed.
Blazing Star 1	[TRADE SECRET DATA HAS BEEN EXCISED]	46.0	52.2	46.1	46.5	47.7	[TRADE SECRET DATA HAS BEEN EXCISED]	46.5	52.6	46.5	47.6	48.3	[TRADE SECRET DATA HAS BEEN EXCISED]
Blazing Star 2		42.3	51.1	46.6	47.3	46.8		43.1	51.7	46.9	48.1	47.5	
Borders		48.3	50.6	44.4	47.3	47.7		48.3	51.4	44.7	48.2	48.2	
Comm. Wind N.		45.9	52.4	47.3	49.5	48.8		46.3	52.4	47.3	49.6	48.9	
Courtenay		42.5	46.6	39.6	42.0	42.7		43.0	46.9	39.9	42.1	43.0	
Crowned Ridge 2		47.0	50.4	44.3	45.7	46.9		49.9	55.6	48.6	48.3	50.6	
Dak. Range 1 & 2			43.5	36.0	39.6	39.7			45.9	37.6	40.7	41.4	
Foxtail		47.3	42.4	44.0	44.5	44.6		50.7	51.3	48.7	49.8	50.1	
Freeborn			45.1	43.1	42.8	43.7			50.7	43.5	48.8	47.7	
Grand Meadow		24.6	29.1			26.9		31.8	30.7			31.3	
Grand Rpwr.				37.2	43.3	40.3				38.3	43.7	41.0	
Jeffers		45.0	54.3	49.8	50.4	49.9		47.5	54.9	49.9	51.5	51.0	
Lake Benton 2		50.3	51.8	49.1	49.7	50.2		52.4	52.3	51.0	51.8	51.9	
Mower			40.8	36.5	39.5	38.9			41.2	36.7	39.6	39.2	
Nobles		19.6	23.9			21.8		37.5	38.7			38.1	
Nobles Repower				42.6	42.9	42.8				44.2	46.9	45.6	
Northern Wind				39.9	46.0	43.0				41.9	48.6	45.3	
Pleasant Valley		40.4	49.5	42.6	44.1	44.2		42.7	49.6	43.0	44.4	44.9	
Rock Aetna				45.3	58.5	51.9				46.3	59.3	52.8	
Average		41.6	45.6	43.2	45.9	43.1		45.0	48.4	44.4	47.6	45.6	

As in the prior year’s FCA true-up filing, capacity factors have been on average (and for most individual years and windfarms) **[TRADE SECRET DATA HAS BEEN EXCISED]** than forecasted, though compared to the 2023 FCA True-Up⁸⁹ are trending closer to forecast at acquisition. In response to an information request in the 2023 FCA-True Up, Xcel noted the discrepancy between forecasted and actual capacity factors are affected by wind quality, that “waking and blocking effects may not have fully been accounted for” in initial estimates, causing lower-than-predicted availability of turbines and curtailment.⁹⁰

The Department notes generation appeared to grow year-over-year from 2023 to 2024 at almost all of the wind farms listed above. The Department will continue to monitor this issue in future FCA filings.

G.4. Wind Conclusion

⁸⁸ Figures from Instant FCA True-Up Petition, Part C, Attachment 2b.

⁸⁹ 2023 FCA True-Up Department Comments at 21.

⁹⁰ 2023 FCA True-Up Department Comments at 21-22.

The Department concludes Xcel has reasonably explained the variance between actual and forecasted wind production. The Department does not have any objections to Xcel's proposed actual 2024 wind recoveries but intends to continue monitoring Xcel's actual capacity factors in future FCA filings.

H. MISO COSTS AND REVENUES

Net MISO revenues for 2024 were \$67.4 million, \$25.7 million (27.6%) lower than the \$93.0 million forecasted. Net MISO sales of 12,235 GWh were 1,758 GWh (16.8%) higher than forecasted. Xcel stated revenue was lower than forecast due to the "greater volume of purchases from the MISO market and lower than forecast revenues from FTRs," and that "lower than forecast LMP led to greater purchases from MISO."⁹¹

Xcel's total MISO charges of \$169.3 million were \$19.2 million (10.2%) lower than Xcel's forecast of \$188.5 million. The biggest change was due to congestion, which as noted above was \$85.5 million lower than forecasted. Of note, lower congestion costs were partially offset by \$46.7 million higher-than-forecasted FTR revenues and \$21.3 million higher-than-forecasted incremental transmission losses.⁹² The Department discusses Xcel's congestion costs in greater detail in the section above.

The Department concludes Xcel has reasonably explained the variances between its forecasted and actual 2024 MISO costs and revenues. The Department does not have any objections to Xcel's proposed actual 2024 recoveries in this area.

I. RETAIL SALES

Minnesota actual retail sales were 1.5% lower than forecasted. According to Xcel, the majority of the deviation from forecast came primarily from weather-related impacts: "higher than expected savings from demand side management (DSM) programs, lower than anticipated load additions from commercial and industrial customers (C&I), decreased sales due to mild weather, lower than forecast Combined Heat and Power (CHP) and Large C&I solar generation, greater than anticipated distributed solar generation, and other non-specified factors."⁹³ The Department concludes Xcel has reasonably explained this variance and does not have any objections to Xcel's proposed final 2024 actual sales.

⁹¹ Instant FCA True-Up Petition at 16.

⁹² *Id.*

⁹³ Instant FCA True-Up Petition at 17.

J. PROPOSED TRUE-UP

As noted earlier, Xcel has begun to implement its proposed refund as shown in the tariff adjustments in Part A, Attachment 8 to the Company's March 31, 2025 Compliance Filing,⁹⁴ which are updated from the proposed changes in Part A, Attachment 8 of the Instant FCA True-Up Petition due to updated rate calculations to adjust for the Company's refund proposal related to the Sherco 3 Outage detailed above.

As detailed above, Xcel has received approval to refund the entire \$48 million related to the Sherco 3 outage in one month and the Company has already implemented a \$30.5 million refund to customers through its mid-year adjustment. Therefore, \$270.2 million of additional refunds are needed to achieve the total \$318.2 million refund (which already excludes the \$30.5 million already refunded in its mid-year adjustment). To process this additional refund, Xcel's April 1, 2025 implementation reduces rates over 12 months through March 2026 by \$270.2 million in aggregate. Xcel, in its March 24, 2025 Alternative Decision Option proposal to refund the \$48 million Sherco 3 outage sum to rate payers in one month, and provided its updated 2024 Fuel, Purchased Power and Other Costs; 2025 Monthly Fuel Clause Charges; and 2024 Under-/Over-Recovered Expense.⁹⁵

The Department was unable to fully verify Xcel's calculations since this updated filing accounting for the Sherco 3 refund was recently filed. **The Department therefore requests Xcel provide spreadsheet copies of Part A, Attachments 1 through 4 of the March 24, 2025 Alternative Decision Option proposal, both in Xcel's reply comments and providing by email to the Department directly to expedite review. The Department will provide a final recommendation regarding Xcel's proposed true-up factors by class after reviewing these spreadsheet versions of the updated Attachments.**

K. GENERAL REPORTING REQUIREMENTS

Overall, the Department concluded Xcel complied with the applicable reporting requirements. Specifically, the Department verified that the instant petition included the information required per the following:

- Minnesota Rules 7825.2800 - 7825.2840, as revised on pages 3 to 4 and approved in Point 1 of the Commission's June 12, 2019 Order in Docket No. E999/CI-03-802.⁹⁶
- Annual FCA true-up general reporting guidelines, as outlined on page 7 and approved in Point 5 of the Commission's June 12, 2019 Order in Docket No. E999/CI-03-802.⁹⁷

⁹⁴ *In the Matter of the Petition of Northern States Power Company for Approval of the 2024 Annual Fuel Forecast and Monthly Fuel Charges*, Compliance Filing – 2024 Annual Fuel Forecast and Monthly Fuel Cost Charges, Xcel Energy, March 31, 2025, Docket No. E002/AA-23-153, (eDockets) [20253-217035-01](#).

⁹⁵ *In the Matter of 2024 Annual Fuel Forecast and Monthly Fuel Cost Charges, Alternative Decision Option – Sherco Unit 3 Replacement Costs-Refund*, Other Filing, Xcel Energy, March 24, 2025, Docket Nos. E999/AA-18-373, E999/AA-17-492, E999/AA-16-523, E999/AA-14-579, E002/GR-13-868, E999/AA-13-599, E002/GR-12-961, E002/AA-23-153, (eDockets) [20253-216764-01](#) at Part A, Attachments 2-4.

⁹⁶ June 2019 Fuel Clause Investigation Docket Order.

⁹⁷ *Id.*

- Annual FCA true-up reporting compliance matrix specific to Xcel, as shown in Attachment 3 of the March 1, 2019 joint comments and approved in Point 7 of the Commission's June 12, 2019 Order in Docket No. E999/CI-03-802.⁹⁸

V. DEPARTMENT RECOMMENDATIONS

Subject to Department confirming Xcel's class factor calculations, the Department recommends the Commission approve the petition.

Relating to the modified Sherco 3 outage refund, the Department requests that Xcel provide copies of Part A, Attachments 1 through 4 of the March 24, 2025 Alternative Decision Option proposal, both in Xcel's reply comments and providing by email to the Department directly. The Department will provide a final recommendation regarding Xcel's proposed true-up factors by class after reviewing these items. The Department also requests Xcel in its Reply Comments provide a narrative explanation of the Sherco 3 refund and the changes between the Instant FCA True-Up Petition as-filed and the lump-sum refund request approved by the Commission.

The Department also requests Xcel provide in its Reply Comments, next FCA filing, or next true-up filing – whichever comes first – the determination of whether the vendor of equipment related to the Reactor Coolant Pumps seal replacements at Prairie Island Unit 1 may be responsible for any issues described by the Company and how any vendor credits will be used to offset ratepayer costs for this issue.

⁹⁸ *Id.*

Attachments

1

- ii. When did work on these each of these items begin and end?
 - iii. How much did this work cost?
3. What is a typical length of time for a “coastdown to planned refueling outage,” as referenced on Part C, Attachment 4b, Line 31?
 4. What is a typical length of time for a “power ascension hold,” as referenced on Part C, Attachment 4b, Line 39?
 5. For both the (a) Prairie Island 1 outage beginning in September 2024 and (b) the Prairie Island 2 outage beginning in January 2024, please provide a daily timeline describing the activities Xcel undertook each day to remedy the outage, until the plants regained sustained 100% power.
 6. For both the (a) Prairie Island 1 outage and (b) the Prairie Island 2 outage, did any human errors occur during the refueling outages? If yes, how much, if any, did this extend the outage/s and associated replacement power costs caused by this?
 7. For both the (a) Prairie Island 1 outage and (b) the Prairie Island 2 outage, did any events occur that were not consistent with Nuclear Regulatory Commission (NRC) requirements? If yes, how much, if any, did this extend the outage/s and associated replacement power costs caused by this?
 8. The Prairie Island 1 outage was planned to last 63 but ended up taking 103 days. Please provide the initial budgeted cost for the planned 63-day outage and explain why ratepayers should pay for the total 103-day cost.

Response:

1. Prairie Island 1 Refueling Outage.

- a. There is not a “typical” length of time for a planned refueling outage. Rather, the length of any single refueling outage is dependent on a number of factors, including required preventative and corrective maintenance, required projects, what regulatory inspections are required, and what testing is required. It is common for the plant to discover additional work once the plant has been shut down and systems evaluated and/or for planned work to take longer than scheduled due to unforeseen complications. The basis for the scheduled 63-day outage on Unit 1 was due to the planned refueling outage combined with the planned baffle former bolt and clevis bolt replacement projects.
- b. Planned work during the refueling outage included a reactor vessel baffle former bolt and clevis bolt replacement project. The clevis bolt project tracked with the planned schedule. The baffle bolt project took longer than expected. The baffle bolts are located within the reactor vessel and connect plates that direct water flow through the reactor vessel for cooling. The bolts were original to the plant and at the time of replacement, they were approximately 50 years old. Following a 2014 license renewal material inspection, the Company

determined based on time-based modeling that additional inspection and bolt replacements would need to be made within 10 years. As a result, the project was added to the 2024 Unit 1 refueling outage. Work on the bolt replacement began on 10/1/2024 and ended on 11/11/2024.

This project took approximately 8 days longer than planned. Difficulties with bolt removal and insertion resulted in this work taking longer than originally expected. Ultimately, 96 of the 283 replaced bolts required some level of additional work beyond the original projected scope due to various issues inherent in nuclear reactor operation affecting the removal and/or replacement of the bolts (e.g., shifting of reactor components over time, thermal cycling stresses, etc.). In addition, there were delays related to the baffle bolt tooling equipment, which is a complex machine designed to be remotely operated underwater. When issues arose, the work was required to stop for repairs. Finally, due to the location of the bolts within a radiologically controlled containment building, all work was subject to radiological control processes and additional work contributed additional time to the project.

The Unit 1 baffle bolt project was budgeted for \$24.4 million in capital costs, and actual cost was \$24 million. The unplanned O&M costs were not contemplated in our last multi-year rate case budgets and will not otherwise be recovered from our customers.

- c. Planned preventative maintenance during the refueling outage included replacement of the seals on both Reactor Coolant Pumps (RCPs). This work began on 9/23/24 and was completed on 11/18/24. The RCP seals minimize friction between rotating pump surfaces and prevent reactor water (which is radiologically controlled) from leaking out of the pumps.

During startup activities on 12/3/24, the RCPs indicated high vibrations, and one pump indicated seal leakage. Per plant procedure, both pumps were shut down on 12/4/24. The plant was cooled down and depressurized. To address the pump vibrations, both reactor coolant pumps were uncoupled from the engines and then re-coupled; this took approximately 8 days. Subsequent to re-coupling, to address the seal leakage, the seal was replaced on 12/16/24. After completing maintenance and re-coupling the pumps, heat up and repressurizing of the plant re-commenced. The plant reached normal operating temperature and pressure on 12/22/24.

On 12/5/24, as the plant was cooled down and de-pressurized, plant personnel identified a seal leak on a Residual Heat Removal (RHR) pump, responsible for

providing cooling to the reactor core. The work on the RHR seal replacement began on 12/7/24 and was completed on 12/8/24. This delayed the cool down and de-pressurization activities that occurred prior to uncoupling the reactor coolant pumps described in the previous paragraph.

On 12/22/24, once the plant had reached normal operating temperature and pressure, it was identified that RCP seal pressure was lower than expected on the seal that had been replaced. Work plans were generated and the plant cool down and de-pressurization was started on 12/26/24. On 1/4/25, the RCP seal was replaced with a new type of seal design. The plant was ready for heat up and re-pressurization on 1/5/25. Following restart of the pump, no further leakage was identified.

Between 1/5/25 and 1/11/25, foreign material was discovered to be blocking the reactor coolant system inlet flow path. It took approximately 5 days to troubleshoot, identify and remove the source of the blockage. The material was identified as deteriorated gasket material from an upstream valve.

Regarding the RCP seal injection filter, the seal injection filter cleans coolant water that is injected into the seal area to prevent high temperature reactor water from entering the seal area and degrading the seal. Seal injection filters are replaced as needed when pressure across the filter increases. We received an indication of high differential pressure across the filter on 1/11/25. The filter was replaced within approximately 24 hours. Heat up and re-pressurization activities re-commenced, and the plant was back to normal operating temperature and pressure with reactor coolant pumps running on January 14, 2025.

Capital costs continue to be assessed for the RCP seal replacements, and the Company is in the process of assessing the potential responsibility of its vendor related to unplanned O&M costs. There were no capital costs for the RHR seal replacement, removing the blockage from the inlet flow path or the RCP seal injection filter replacement.

2. Prairie Island 2 Outages.

- a. *See response to 1a, above.* The basis for the scheduled 63-day outage on Unit 2 (starting on October 6, 2023) was due to the refueling outage combined with the planned baffle former bolt and clevis bolt replacement project.

The Unit 2 outage referenced in Part C, Attachment 4b, lines 36 through 38, is a continuation of the 2023 Unit 2 planned refueling outage that began October 6, 2023. A DC control cable bundle was cut and required replacement impacting both Prairie Island Unit 1 and Unit 2. This outage is currently being addressed in a contested case, MPUC Docket No. E002/AA-22-179 and OAH Docket No. 21-2500-40336.

- b.** The “reactor vessel head o-ring replacement” and the “nuclear intermediate range detector” referenced in Line 37 of Part C, Attachment 4B is the same as the “reactor vessel head seal leak” and the “nuclear instrument replacement,” respectively, referenced and described in the Company’s response to DOC IR No. 25 in Docket No. E002/AA-22-179 (also attached here as Attachment A). Capital costs for the detector replacement were about \$869,000. There were no capital costs associated with the o-ring replacement. As previously indicated in response to IR 25, the Company and vendor were in disagreement on the responsible party for certain O&M costs; the vendor ultimately did not charge the Company for about \$1.1 million in O&M. Again, unplanned O&M costs were not contemplated in our last multi-year rate case budgets and will not otherwise be recovered from our customers.
 - c.** As described in line 40 of Part C, Attachment 4b, the Company discovered on 5/2/24 a flanged valve that was preventing us from increasing water box level in the outer pass and affecting the use of the condenser tube cleaning system. This was discovered during a planned derate that began on 5/1/24. The valve repair took approximately 16 hours. There were no capital costs associated with this work.
- 3.** A coastdown optimizes fuel utilization. As the reactor operates at reduced power during the coastdown period, the time the fuel can be used before needing replacement power is extended. This duration is different between reactors. At Monticello, coastdowns have historically been between 30 and 60 days. At Prairie Island, coastdowns have historically been between 20 and 30 days.
- 4.** We have two power ascension holds that can be executed during startup following a refueling outage:
 - a.** 30% hold: approx. 4-12 hours. This hold is for iron reduction in the feedwater system.
 - b.** 50% hold: Up to 1 week. This hold is for Steam Generator contaminants (sodium, Chloride, Sulfates). The hold time varies based on sample results.

5. The daily outage activities for the Prairie Island 1 outage beginning in September 2024 is provided in Attachment B, and the Prairie Island 2 outage activities beginning in January 2024 are provided in Attachment C.

6. As explained above, the delays during the Unit 1 and Unit 2 planned outages were driven by equipment failures, not human error. Moreover, the Company objects to the phrase “human errors” as overly broad and ambiguous without further definition or context. The outages spanned over one hundred days, with work performed by hundreds of individuals. In addition, the term error has various meanings. Together, the Company is unclear exactly what this request is referring to and therefore responds as described below.

The Company evaluated whether there is a similar category within its established nuclear reporting. The Company reports on human performance related events to INPO across various categories. The Company did not identify or report any human performance events to INPO during the Unit 1 or Unit 2 outages that affected the outage duration.

7. During the planned Unit 1 refueling outage, we undertook a routine inspection of the underside of the reactor vessel. With respect to this inspection, we received a green finding (i.e., of very low safety significance and not requiring a written response) of 10 CFR 50.55a related to the adequacy of inspecting the bottom mount instrument connection welds. The additional scope was incorporated into the inspection plan and completed as scheduled. This did not result in an extension of the outage.

8. Initial budgeted O&M cost was \$40 million, estimated final O&M costs are approximately \$49 million (including 2025). O&M outage costs are not recovered through the fuel clause. We do not plan to seek any additional recovery in our 2025 case to recover this \$9 million increment. With respect to replacement power costs, ratepayers should pay the full costs of the 2024 Prairie Island outages discussed in this response because those costs were prudently incurred. In the course of a planned outage, it is expected that additional work and/or longer-than-anticipated timelines will be needed. Moreover, when equipment issues are discovered, it is critical that these issues are resolved prior to placing the plant back online to ensure safety and reliability of the plant. The outage delays described here were a result of discovering equipment issues identified during shutdown that we are required to resolve prior to bringing the unit back online. For example, in the case of the reactor vessel O-ring and RCP seal replacements, had we placed the unit back online with these issues ongoing, we would have violated license requirements. These license requirements are in place to ensure worker and public safety while the plant is at power. In addition to these safety considerations, plant reliability and predictability similarly require that we handle known issues that require shutdown prior to restarting the plant. Our

customers expect the plant to run for a full 24-month cycle. Issues discovered during an outage that could jeopardize reliability are repaired to prevent a future maintenance outage between refueling outages and save those future additional outage costs. Therefore, ratepayers should pay for the full replacement power costs incurred as a result of the outage because the Company prudently undertook all outage activity in order to ensure the safe and reliable return to service of its plants. The Company reiterates that it is not seeking any additional outage costs in its 2025 case.

		As to Objections:	
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Date:	April 4, 2025	Date:	April 4, 2025
Preparer:	Charles F. Jacobs		
Title:	Manager, Business Area Finance		
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Telephone:	(651) 212-1679		
Date:	April 4, 2025		

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DOC IR No. 18
Attachment A
Page 1 of 3

Xcel Energy	Information Request No.	25
Docket No.:	E002/AA-22-179	
Response To:	Minnesota Department of Commerce	
Requestor:	Stephen Collins	
Date Received:	April 18, 2024	

Question:

Topic: Prairie Island Unit 2 refueling and associated outages

Reference(s): Xcel responses to DOC IR 16(b) and DOC IR 22

- (a) Please clarify whether coastdowns are included in the table in response to DOC IR 22(d).
- (b) Please confirm the refueling outage began on October 6, 2023 as planned.
- (c) For the transformer controller cable damage:
 - (i) When and how was this issue identified?
 - (ii) Please confirm the same cable damage resulting in the Unit 1 outage beginning October 19, 2023 caused the 57 day, 4 hour additional outage length cited in response to DOC IR 22(e).
 - (iii) Please explain how the 57 day, 4 hour length was calculated.
- (d) For the reactor vessel head seal leak:
 - (i) When and how was this issue identified?
 - (ii) Please explain how this activity was not included in the forecast, given the forecast includes “vessel in-service inspection” as listed in response to DOC IR 22(a)
 - (iii) When did the work begin and end?
 - (iv) Please explain how the 16 day, 21 hour length was calculated.
 - (v) How much did the work cost?
 - (vi) Is Xcel planning to request recovery of the costs incurred?
- (e) For the nuclear instrument replacement:
 - (i) When and how was this issue identified?
 - (ii) Please explain how this activity was not included in the 63-day forecast, given the forecast includes “nuclear power monitoring instrumentation replacement” as listed in response to DOC IR 22(a).
 - (iii) When did the work begin and end?
 - (iv) Please explain how the 9 day, 4 hour length was calculated.
 - (v) How much did the work cost?
 - (vi) Is Xcel planning to request recovery of the costs incurred?

Response:

- (a) Coastdowns are not included in the table provided in response to DOC Information Request (IR) No. 22(d).
- (b) Yes, the Unit 2 Refueling Outage began on October 6, 2023 as planned.
- (c) For transformer controller cable damage:
 - (i) The transformer controller cable damage was identified by the Unit 1 reactor trip on October 19, 2024, which was a result of the cable damage.
 - (ii) Yes, the same cable damage resulting in the Unit 1 outage beginning October 19, 2023 is the same cable that caused the 57 day, 4 hour additional outage length cited in response to DOC IR No. 22(e).
 - (iii) This was time added from the expected finish date of the Unit 2 refueling outage (December 8, 2023) until the completion of work to address the cable damage allowing Unit 2 status to progress.
- (d) For the reactor vessel head seal leak:
 - (i) The issue was discovered when a reactor vessel flange leak-off high temperature alarm was received on January 31, 2024. Thermography was performed February 1, 2024 at 0133 to verify leakage.
 - (ii) Forecasted work titled “vessel in-service inspection” was an inspection of baffle former bolts. The reactor vessel head leak was discovered after the baffle former bolt inspections were completed.
 - (iii) The work began on February 1, 2024 at 0400 when transition to cold shutdown commenced. The plant was brought back to a “refueling” status for reactor vessel head removal. The work ended on February 17, 2024 upon returning to cold shutdown (reactor vessel head bolted on).
 - (iv) This was the time between validation of leak-off on February 1, 2024 and returning to Mode 3 on February 17, 2024 for a total of 16 days and 21 hours.
 - (v) Costs associated with this work continue to be assessed. The Company incurred approximately \$3.6 million in O&M costs and the vendor incurred approximately \$1.8 million in O&M costs, which the Company has not paid. The Company and vendor are in disagreement on the responsible party for these costs, and the Company is challenging the vendor regarding costs incurred as a result of their performance.
 - (vi) These O&M costs were not included in the Company’s 2024 Plan Year of its current multi-year rate plan (Docket No. E002/GR-21-630). Xcel Energy does not intend to seek deferral or alternative cost recovery of the O&M expenses incurred as identified in Part (d)(v) above.
- (e) For the nuclear instrument replacement:
 - (i) The issue was discovered when the source range detector failed to respond to dilutions to criticality during reactor startup on February 20, 2024.
 - (ii) The planned outage forecast included “nuclear power monitoring instrument replacement,” which was a capital project that replaced nuclear instrument drawers in the control room. These drawers contain circuit cards

and capacitors. The nuclear instrument referred to here that caused startup delays is a detector that is placed in an instrument well located within the concrete surrounding the reactor vessel.

- (iii) The detector was taken out of service at 1405 on February 20, 2024. Work was completed at 1321 on February 29, 2024 when return to service testing was completed satisfactorily.
- (iv) The duration was calculated using the time between indications of detector failure stopping work and completion of testing on the replacement detector for a total of 9 days and 4 hours.
- (v) The work costs associated with the detector issue continue to be assessed but are currently estimated to be approximately \$700,000 capital and \$270,000 O&M.
- (vi) The Company plans to include the capital additions related to the Prairie Island Unit 2 detector replacement, as identified in Part (e)(v) of our response, in our next electric rate case. The O&M costs were not included in the Company's 2024 Plan Year of its current multi-year rate plan. Xcel Energy does not intend to seek deferral or alternative cost recovery of the O&M expenses incurred as identified in Part 25(e)(v).

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Preparer:	Jason Hoppman
Title:	Outage Manager
Department:	Fleet Centralized Maintenance
Telephone:	651-267-1767
Date:	April 29, 2024

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-23-153

Dated this 15th day of **April 2025**

/s/Sharon Ferguson

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