

Staff Briefing Papers

Meeting Date	June 27, 2024	Agenda Item 2*	
Company	Minnesota Power		
Docket No.	E-015/AA-22-216		
	In the Matter of Minnesota Power’s Petition for Approval of Annual Automatic Adjustment Charges for the Period of January 2023 through December 2023		
Issues	Should Minnesota Power’s 2023 Annual Fuel and Purchased Energy Charge Rider true-up be approved?		
Staff	Eric Willette	eric.r.willette@state.mn.us	651-201-2193

✓ Relevant Documents	Date
Minnesota Power – True-up Report (Public and Trade Secret)	March 4, 2024 ¹
Department of Commerce – Comments (Public and Trade Secret)	April 15, 2024
Minnesota Power – Reply Comments	May 1, 2024

¹ Filing is dated March 1, 2024

I. Statement of the Issue

Should Minnesota Power's 2023 Annual Fuel and Purchased Energy Charge Rider true-up be approved?

II. Background

On March 4, 2024,² Minnesota Power (MP, Company) filed its 2023 Annual True-Up of its Fuel and Purchased Energy Charge (Petition) seeking to refund a credit of \$10.5 million. MP proposed a 12-month refund period beginning the first month following Commission approval.

On April 15, 2024, the Minnesota Department of Commerce, Division of Energy Resources (Department, DOC) filed comments recommending approval of Minnesota Power's Petition, with modifications. The Department also requested that Minnesota Power provide a copy of its Manitoba Hydro power purchase agreement (PPA).

On May 1, 2024, Minnesota Power filed reply comments agreeing with the Department's recommendations and provided response regarding Manitoba Hydro PPA.

III. Parties' Comments

A. Minnesota Power – True-Up Petition

1. Background

On December 8, 2022, the Commission approved Minnesota Power's January 2023 through December 2023 Forecasted Rates for its Rider for Fuel and Purchased Energy Charge (Fuel Adjustment Clause, FAC, FCA).

On August 30, 2023, Minnesota Power submitted a proposal to adjust rates by \$17.8 million due to lower than forecasted market pricing and higher sales. After a 30-day notice period and no objection to the rate adjustment, Minnesota Power decreased the October through December 2023 approved monthly fuel cost rates by the \$17.8 million.

2. 2023 FCA Forecast to Actuals

Minnesota Power's 2023 actual sales were 9,129,265 MWh and actual fuel costs were \$271.4 million. During 2023 Minnesota Power over collected fuel costs by \$13.3 million and proposed to refund that amount over a 12-month period beginning the first of the month following Commission approval.

3. Fuel Costs

² The Filing is dated March 1, 2024.

Table 1 compares 2023 forecasted total sales, total cost of fuel and average cost of fuel to actuals.

Table 1 Fuel Cost Summary

2023 Forecasted Fuel	2023 Adjusted Forecast	2023 Actual	Difference
Company's Generating Stations	\$160,055,752	\$120,798,378	\$(39,257,375)
Purchased Energy	\$212,741,108	\$255,150,291	\$42,409,183
MISO Charges	\$84,170,517	\$24,240,451	\$(59,930,066)
MISO Schedules 16, 17 & 24	\$(261,937.00)	\$(434,364.00)	\$(172,427.00)
Fuel Cost Recovered through Inter System Sales	\$161,604,379	\$129,080,438	\$(32,523,941)
Costs Related to Solar	\$2,522,315	\$1,354,052	\$ (1,168,263)
Time of Generation and Solar Energy Adjustment	\$1,344,170	\$1,191,444	\$(152,726.00)
Forecasted Cost of Fuel	\$294,446,791		
Significant Events Filing	\$(17,824,151)		
Total Cost of Fuel	\$276,622,640	\$271,380,438	\$ (5,242,202)
Total Fuel Clause Sales (MWh)	8,815.4	9,129.3	313.8
Average Cost of Fuel	\$31.38	\$29.73	\$ (1.65)

4. Sales

As shown in Table 2, mainly due to increased Large Power Taconite sales, actual sales were 313,821 MWhs, or 4%, higher than forecasted. This higher total includes MISO market sales Inter System sales that were 710,997 MWhs lower than forecast. However, Inter System sales are removed from the Total Sales as they are non-FAC MWhs. Minnesota Power used the RTSim production cost model to determine the volume and cost of MISO market sales used in the forecast. Actuals are looked at hourly so there will be hours where Minnesota Power is a net purchaser which creates market purchases and sales in a month.

Table 2 – Sales Comparison (MWh)

2023 Sales	Forecasted		Difference
	Sales	Actual Sales	
Total Sales of Electricity	13,212,639	12,796,580	(416,058)
Residential	1,043,077	1,013,751	(29,326)
Commercial	1,232,760	1,179,547	(53,213)
Large Power Taconite	4,042,289	4,410,110	367,821
Large Power Paper and Pulp	600,104	533,667	(66,437)
Large Power Pipeline	309,481	336,125	26,644
Other Miscellaneous	333,726	355,881	22,155
Municipals	1,311,330	1,338,625	27,295
Inter System Sales	4,339,872	3,628,874	(710,997)
Less: Inter System Sales	4,339,872	3,628,874	(710,997)
Customer Intersystem Sales	755,606	809,093	53,487
Market Sales	3,581,792	2,812,719	(769,074)
Station Service	2,473	7,063	4,589
Sales due to Retail and Resale Loss of Load	0	0	0
Less: Solar Generation & Purchases	57,323	38,441	(18,882)
Total Fuel Clause Sales	8,815,444	9,129,265	313,821

Minnesota Power provided the following information regarding 2023 actual sales when compared to forecast:³

- Residential sales were 3% lower than 2023 forecast.
- Commercial sales were 4% lower than forecasted.
- Large Power Taconites were 9% higher than forecasted. Taconite customers were above forecasted levels due to the iron and steel industry's return to pre-COVID demand levels.
- Paper and Pulp actuals were 11% lower than the 2023 forecast. UPM Blandin's workforce went on strike to renegotiate their labor agreement causing a 2-3 month plant shutdown. The strike also resulted in lower production levels for the last half of the year as they struggled to refill their orderbook.
- Large Power Pipelines were 9% higher than forecasted due to higher loads.
- Other Misc. were 7% higher than forecasted.
- Municipals came in 2% higher than forecast.
- Intersystem Sales were about 711,000 MWhs lower than forecasted.

5. Generation⁴

Lower energy production at Minnesota Power's thermal generation fleet as well as the Hibbard

³ Minnesota Power Petition, Attachment 2, pg. 6.

⁴ Trade Secret Table 3 in Minnesota Power's Petition summarizes MP's production, by plant.

Renewable Energy Center was due to being called upon by MISO less frequently because of lower market prices than forecasted. The increased generation at the Company's Laskin facility was due to lower than forecasted natural gas prices which led to the unit being more economical and being dispatched more by MISO. A decreased renewable generation in 2023 is related to lower North Dakota wind generation and lower hydro production in region due to the drier conditions in 2023.

Minnesota Power provided the following 2023 generation cost information when compared to forecast:⁵

- Boswell total costs were 19% below forecast due to market prices being approximately 40% lower than forecast which decreased Boswell 3 and 4's output. When compared to forecast, lower MISO clearing reduced Boswell 3's generation by 22% and Boswell 4's by 31%.
- As a result of natural gas prices being 60% lower than forecast, Laskin 1 and Laskin 2's generation exceeded forecasts by 60% and 39%, respectively.
- Due to lower market prices, MISO called on Hibbard less frequently than forecasted resulting in generation being 71% lower. Although Hibbard, as expected, operated all 12 months Hibbard 3 and Hibbard 4's actual generation was, respectively, 75 and 62% lower than anticipated.
- 2023 Wind generation was 15% lower than forecasted, with Bison being 16% below forecast and Tac Ridge 1% below forecast. Minnesota Power observed lower wind generation across all its North Dakota wind generation and purchases. It's important to note that wind generation has a \$0 fuel cost.
- Due to a drier spring, summer, and fall, Minnesota Power's hydro generation was 25% lower than forecasted. The dry conditions led to low water flows, which reduced hydro generation for April through November 2023. Hydro generation owned by Minnesota Power has a \$0 fuel cost.

6. Purchase Costs

Minnesota Power provided the following information regarding 2023 purchase costs when compared to forecast that shows the main drivers of purchase cost decreases:⁶

- The MHEB contract includes a variable energy component (113 Purchase Power Agreement). Throughout 2023, Minnesota Power procured more energy from Manitoba Hydro than forecasted but at a lower cost.
- Market prices were 40% less than forecasted in 2023. As a result, Minnesota Power increased energy purchases from the market.
- Reduced generation from Minnesota Power's thermal, wind and hydro sources lead to

⁵ Minnesota Power Petition, Attachment 2, pgs. 9-10.

⁶ Minnesota Power Petition, Attachment 2, pgs. 16-17

higher market purchases to meet load demands.

- The Market purchase price per MWh was 46% lower than forecasted due to lower-than-expected MISO market prices.
- Minnkota Power Station costs were lower than forecasted, with the forecast based on prior year monthly averages.
- During the 2023 forecast process, it was decided Minnesota Power would serve Non-Firm Retail load from the Minnesota Power system so there were no MWhs or dollars in the 2023 forecast. Actuals reflect purchases were made with counterparties to serve Non-Firm Retail Load.
- Counter Party Purchases that were not known or under contract at the time of the forecast filing but were procured during times when Minnesota Power was short and needed to purchase energy to cover load. This can happen when generation is lower than expected, load is high, market prices are lower than expected, or Minnesota Power has generating units off for outage.
- Oliver 1 costs were 6% lower than forecast due to unanticipated credits on invoices, which reduced the \$/MWh.
- Oliver 2 costs were 10% lower than forecast due to unanticipated credits on invoices, which reduced the \$/MWh.
- Wind River generation was 37% lower than forecast and costs were 39% lower than forecast. Also, there was a September 2023 outage.
- Nobles generation was 6% less than forecast; however, due to compensated curtailments not forecasted, per MWh costs were 1% higher than forecast.
- SES 20MW Solar purchases MWhs were 45% less than forecasted and cost per MWh 2% less than forecast. Generation and costs are included in the Solar Energy Adjustment (SEA).
- Solar Subscription Cancellations are not forecasted as it is minimal. Any unused solar generation is purchased back by Minnesota Power when they leave the program.
- Municipal Solar Energy purchase costs incurred to procure solar energy for a municipal customer are offset by sales proceeds.
- Square Butte 2023 generation was lower than forecast. Fuel cost was slightly higher than forecast. Overall costs were within 1% of forecast.

7. Inter-System Sales

Minnesota Power provided the following information regarding inter-system sales when compared to forecast:⁷

- Since Large Power sales exceeded forecast, Incremental Production Service (IPS) and Replacement Firm Power Service (RFPS) MWhs were higher than forecast. However, \$/MWh was lower due to lower than forecast market prices.
- Economy and Non-Firm MWhs were higher than forecast due to increased 2023

⁷ Minnesota Power Petition, Attachment 2, pgs. 24-26

customer sales. Lower market prices led to a slight decrease in the \$/MWh.

- Since it is usually small, Excess Energy is not forecasted: actual was \$2.
- Since it is usually small, Incremental and Price Recall is not forecasted. Higher 2023 loads led to a slight increase.
- Municipal Incremental MWhs were 2% lower than forecast and, due to market prices, costs were 8% lower than forecast.
- Municipal Solar Energy sale is a direct offset of Municipal Solar Energy purchase. Due to market prices, 2023 costs were lower.
- Hibbing Public Utilities MWhs were 4% lower than forecast and, due to higher thermal Boswell fuel costs, actual costs were 5% higher.
- Oconto loads were stronger than forecasted and, due to Boswell's higher thermal fuel costs, \$/MWh were 7% higher than forecast.
- There were no forecasted 2023 Asset Based Sales in 2023. A small sale occurred in January 2023.
- Less generation output and slightly higher fuel costs at Square Butte decreased MWhs and increased costs for Minnkota Power Liquidation sales.
- Liquidated Sales (Non MISO) had no forecasted sales and a small sale occurred in January 2023.
- Reduced 2023 generation lowered the amount of Asset Based sales to the market.
- Renewable Source Program (Green Pricing) is small and not forecasted.
- Oliver 1 and 2 forecast was based on the 2022 average. 2023 actuals were slightly higher.
- WPPI Energy station service calculated when Boswell 4 is offline, and Boswell 4 was offline around 50 more days than forecast.
- MISO costs recovered through Customer Sales is part of their fuel cost and is reflected in the average cost price in the "Inter-System Sales- Customer Sales" section. Due to decreased 2023 Market MISO sales, recovered costs were lower than forecast.
- Sales Due to Retail Loss of Load were \$0 in the forecast and actuals.
- Asset Based Margins were 34% lower than forecast, mainly due to lower than forecasted MISO market prices (40% lower).

8. MISO Costs

Minnesota Power provided the following information regarding 2023 MISO Costs when compared to forecast:⁸

- Asset Energy is reflected in MISO market purchases and sales. In its 2023 forecast, Minnesota Power did not include these amounts and, for actuals, MP was able to break out the Asset Energy between various charge types, which are included in the Energy Charges line on Attachment 3.
- Congestion and Loss Charge, Minnesota Power's repurchased energy costs are included

⁸ Minnesota Power Petition, Attachment 3, pg. 2.

in this category. Lower market prices in 2023 led to reduced repurchased energy costs for the actuals compared to forecast.

- Miscellaneous Charges, variance between 2023 forecast and actuals is mainly due to the EFC (Energy Conservation Fund) refund issued by MISO in May 2023. This refund was a significant credit and was categorized as a miscellaneous charge amount.

9. True-Up Proposal

Minnesota Power proposed a 2023 FCA True-up of \$10.5 million to be refunded over a 12-month period beginning the first of the month following Commission approval.

B. Department of Commerce – Comments

The Department reviewed Minnesota Power's Petition to determine (1) whether the Company's actual 2023 energy costs were reasonable and prudent, (2) correctly calculated the 2023 true-up for its FPE rates, and (3) whether the Petition complies with the reporting requirements set forth in the applicable Minnesota Rules and Commission Orders.

1. Prudence and Reasonableness of Minnesota Power's Actual 2023 Fuel/Purchased Power Cost

As shown in Table 3, the Department noted that Minnesota Power's relevant MWh sales were 3.5% higher than forecasted, total system actual fuel/purchased power costs recoverable through the FCA were 2% less than forecasted and average fuel and purchased power costs, per MWh, were 5.3% lower than forecasted.

Table 3 – Comparison of Select Forecasted to Actual Data for Minnesota Power's Fuel Clause Adjustment True-Up

Data Description	Actual	Forecast	Percentage Difference
MWh Sales Subject to FCA	8,815,444.00	9,129,265.00	3.56%
Total Cost of Fuel/Purchased Power	\$276,622,640	\$271,380,438	-1.90%
Average Fuel/Purchased Power Cost Per MWh	\$31.38	\$29.73	-5.26%

Table 4 breaks into several major cost categories and offsetting credit/revenue components of Minnesota Power's actual and forecasted fuel/purchased power costs recoverable through the FCA. The Department noted that, to cover load from a decrease in generation, MP purchased more energy from the market. Also, due to lower market prices, Boswell units were cleared by MISO less often, and Hibbard was called on less often. MISO charges were significantly lower than forecasted at \$24.2 million actual compared to \$84.2 million forecasted, or 71.2 % lower.

Table 4 - Minnesota Power's Actual and Forecasted Total Company 2023 Fuel/Purchased Power Costs and Offsetting Credits/Revenues by Major Category

Fuel/Purchased Power Cost, Credit, or Revenue Category	2023 Forecast	2023 Actual	Percentage Difference
Plant Generation Costs	\$160,055,752	\$120,798,378	-24.53%
Purchased Power Costs	\$212,741,108	\$255,150,291	19.93%
MISO Charges	\$84,170,517	\$24,240,451	-71.20%
MISO Schedule 16, 17 & 24	(\$107,186)	(\$406,916)	279.64%
Fuel Cost Recovered through Inter System Sales	\$161,604,379	\$129,080,438	-20.13%
Costs Related to Solar	2,522,315.00	\$1,354,052	-46.32%
Time of Generation and Solar Energy Adjustment	\$1,344,170	\$1,191,444	-11.36%
Initial Forecasted Cost of Fuel	\$294,446,791	-	N/A
Significant Events Filing	(\$17,824,151)	-	N/A
Total Costs, Net Credits and Revenue	\$276,622,639	\$271,380,438	-1.90%
Total Fuel Clause Sales (MWh)	8,815,444	9,129,265	3.56%
Average Cost of Fuel	\$31.38	\$29.73	-5.26%

The Department noted that, due to increased Large Power Taconite sales, MP's customer sales increased 313,821 MWhs, or 3.6%, over forecast.

Based on Minnesota Power's experience, the Department concluded it is reasonable the Company's actual 2023 fuel/purchased costs recoverable through the FCA were lower than forecasted. The Department noted that higher sales than forecasted, but also lower MISO charges, lower plant generation costs, and higher purchased power costs in 2023. The Department recommended Minnesota Power's actual 2023 fuel/purchased power costs recoverable through FCA be found to be reasonable.

2. Minnesota Power's 2023 Fuel Clause Adjustment True-up

Minnesota Power's Petition requested a \$10.4 million true-up FCA credit be refunded over a 12-month period effective the first month following Commission approval. Table 5 summarizes the actual amount to be refunded.

Table 5 – 2023 Over/(Under) Collection Credit

	Actual
2023 Actual Collections from Customers	\$245,953,179
Less: Actual Costs and Actual Sales	\$232,694,252
Plus: 2021 True-Up Recovery Overcollection (2022)	\$894,348
Plus: 2021 True-Up Recovery Overcollection (2023)	\$1,322,725
Less: Hibbing Public Utilities Lost Revenue (2022)	\$1,258,651
Less: Hibbing Public Utilities Lost Revenue (2023)	\$3,761,047
Plus: Small cancel rebill adjustments in General Ledger	\$770
Net 2023 FCA True-up Amount	\$10,457,072

Except for the 2023 Hibbing Public Utilities amount, the Department concluded Minnesota Power correctly calculated its FCA/FPE over-collection.

The Department noted that the Commission's Order in Docket No. E-015/M-22-501, allows recovery of \$3.2 million (Minnesota Jurisdiction). Therefore, the Department recommended capping 2023 Hibbing Utilities lost revenue amount at \$3.2 million resulting, as shown in Table 6, in a \$11,018,119 refund instead.

Table 6 – 2023 Over/(Under) Collection Credit

	Actual
2023 Actual Collections from Customers	\$245,953,179
Less: Actual Costs and Actual Sales	\$232,694,252
Plus: 2021 True-Up Recovery Overcollection (2022)	\$894,348
Plus: 2021 True-Up Recovery Overcollection (2023)	\$1,322,725
Less: Hibbing Public Utilities Lost Revenue (2022)	\$1,258,651
Less: Hibbing Public Utilities Lost Revenue (2023)	\$3,200,000
Plus: Small cancel rebill adjustments in General Ledger	\$770
Net 2023 FCA True-up Amount	\$11,018,119

The Department considered the Company's proposal to refund the amount over 12-month period beginning the first month following Commission approval to be reasonable.

3. Compliance with Reporting Requirements

The Department verified that the Petition included the information required by the following:

- Minnesota Rules 7825.2800 - 7825.2840, as revised on pages 3 - 4 and approved in Point 1 of the Commission's June 12, 2019 Order.

- 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.
- Annual FCA true-up reporting compliance matrix specific to Minnesota Power, as shown in Attachment 1 of the March 1, 2019 joint comments and approved in Point 7 of the Commission's June 12, 2019 Order.

The Department found that Minnesota Power's Petition did not include the required Report Addressing the PPA with Manitoba Hydro and requested the Company submit the Report in Reply Comments.

4. Maintenance Expenses of Generation Plants and Correlation to Incremental Forced Outage Costs

In its February 6, 2008 Order,⁹ the Commission required all electric utilities subject to automatic adjustment filing requirements, with the exception of Dakota Electric, to include in future annual automatic adjustment 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. This requirement stems from the drastic increase in Investor-Owned Utilities' (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 otherwise produced, usually through wholesale market purchases. The cost of those market purchases flows directly to ratepayers through the FCA. The high outage costs incurred by investor-owned utilities in FYE06 and FYE07 raised the question of whether plants were being maintained appropriately to prevent forced outages and whether IOUs were spending as much on plant maintenance as they were charging their customers in base rates. The Commission agreed with the Department and the Large Power Interveners 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."

The Department reviewed Minnesota Power's 2023 approved and actual Minnesota jurisdiction generation maintenance expenses and, since actual generation maintenance expenses exceeded amounts approved in rates, found them to be reasonable. The Department will continue to monitor Minnesota Power's generation maintenance expenses in future filings, to ensure underspending on generation maintenance expenses does not result in increased outage costs passed on to the ratepayers through the FPE.

5. Conclusion and Recommendations

⁹ ORDER ACTING ON ELECTRIC UTILITIES' ANNUAL REPORTS, REQUIRING FURTHER FILINGS, AND AMENDING ORDER OF DECEMBER 20, 2006 ON PASSING MISO DAY 2 COSTS THROUGH FUEL CLAUSE, In the Matter of the Review of the 2005 AAA of Charges for all Electric Utilities, Docket No. E-999/AA-06-1208 (February 6, 2008) p. 9, ordering paragraph 18.

Based on its review, the Department recommended the following:

- Find MP's actual 2023 fuel/purchased power costs recoverable through the FCA/FPE rider was reasonable and prudent.
- Find MP correctly calculated its 2023 FCA/FPE Rider overcollection of \$13,258,927.
- Require MP to refund \$11,018,119 (\$10,457,072 plus \$561,047) for the Net FCA True-Up in the 12-month period following approval by the Commission, rather than the \$10,457,072 Net FCA True-Up (see Table 4 above) requested by the Company.
- Approve the compliance reporting portions of MP's Petition, subject to Department review of MP's Report Addressing the PPA with Manitoba Hydro in the Company's Reply Comments.

C. Minnesota Power – Reply Comments

In response to the Department requests for additional information MP provided the following.

1. Department of Commerce Request to Adjust NET True-Up

Minnesota Power agreed with the Department's recommendation to lower the 2023 Hibbing Public Utilities lost revenues to the approved \$3.2 million cap and the resulting \$11,018,119 revised refund.

2. Department of Commerce Request – Manitoba Hydro PPA

Minnesota Power noted that the Power Purchase Agreement (PPA) with Manitoba Hydro ended April 30, 2022, and the current agreement does not include Products B and C which was the subject of the required information in previous reports. Minnesota Power requests the Commission to remove reporting requirements relating to the Manitoba Hydro in future reports.

IV. Staff Comments

Staff has reviewed and verified Minnesota Power's calculations and concurs with the Company and the Department's recommendation that Minnesota Power's Petition be approved.

V. Decision Alternatives

Petition

1. Accept and approve Minnesota Power's 2023 Annual Fuel and Purchased Energy Charge Rider true-up compliance filing. (MP, DOC)

True-Up Amount

2. Authorize Minnesota Power to refund its 2023 over-collection of \$11,018,119. (MP, DOC)

Timing of True-up

3. Allow Minnesota Power to refund the 2023 over-collection over a 12-month period starting the 1st day of the next month after the Commission issues its written order. (MP, DOC)

Reporting Change

4. Remove the reporting requirement relating to the Manitoba Hydro PPA in future reports. (MP)