



AN ALLETE COMPANY

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May 1, 2024

**VIA E-FILING**

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

Re: **In the Matter of Minnesota Power's Petition for Approval of the Annual Forecast of Automatic Adjustment Charges for the period of January 2025 through December 2025**  
**Docket No. E015/AA-24-TBD**  
**Annual Compliance Filing**

Dear Mr. Seuffert:

Minnesota Power respectfully submits its Annual Forecasted Fuel and Purchased Energy rates for the calendar year 2025 to the Minnesota Public Utilities Commission, pursuant to the decisions rendered by the Commission in Docket No. E999/CI-03-802 and where applicable, in compliance with Minnesota Rules 7825.2800 to 7825.2840 governing Automatic Adjustment of Charges.

Please contact me at (218) 355-3082 or [cvatalaro@allete.com](mailto:cvatalaro@allete.com) if you have any questions regarding this compliance filing. For all discovery related inquiries please email [cvatalaro@allete.com](mailto:cvatalaro@allete.com) and [discoverymanager@mnpower.com](mailto:discoverymanager@mnpower.com).

Kind Regards,

A handwritten signature in cursive script that reads 'Claire Vatalaro'.

Claire Vatalaro  
Regulatory Compliance Specialist

CMRV:th  
Attach.

**STATE OF MINNESOTA  
BEFORE THE  
MINNESOTA PUBLIC UTILITIES COMMISSION**

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In the Matter of Minnesota Power's Petition for Approval  
of the Annual Forecast of Automatic Adjustment Charges  
for the period of January 2025 through December 2025

Docket No. E015/AA-24-XXX  
**MINNESOTA POWER'S  
ANNUAL FILING**

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**I. INTRODUCTION**

Minnesota Power (or the "Company") hereby submits this Petition to the Minnesota Public Utilities Commission ("Commission") for approval of its Annual Forecast of Automatic Adjustment Charges for the period of January 2025 through December 2025. In this Petition Minnesota Power forecasts total fuel clause sales for 2025 to be 8,997,900 MWh at a total average cost of fuel at \$266,372,540 resulting in an average fuel cost of 2.955 cents per kWh.

**II. GENERAL FILING INFORMATION**

In accordance with Minn. Rule 7829.1300, subp. 3, and additional Commission Orders, Minnesota Power provides the following required information.

**A. Name, Address and Telephone Number of Utility**

Minnesota Power  
30 West Superior Street  
Duluth, MN 55802  
(218) 722-2641

**B. Name, Address and Telephone Number of Utility Attorney**

Matthew Brodin  
Senior Attorney  
Minnesota Power  
30 West Superior Street  
Duluth, MN 55802  
(218) 355-3152  
[mbrodin@allete.com](mailto:mbrodin@allete.com) (email)

**C. Date of Filing and Date Proposed Rates Take Effect**

The date of this filing is May 1, 2024. Minnesota Power proposes the forecasted rates for the calendar year 2025 be effective on January 1, 2025.

**D. Statute Controlling Schedule for Processing the Petition**

No statute establishes a schedule for processing this filing. The applicable rules are Minn. Rule 7825.2800 through 7825.2840.

In the June 12, 2019 Order issued by the Minnesota Public Utilities Commission in Docket No. E999/CI-03-802 (“June 2019 Order”)<sup>1</sup>, the Commission approved variances to Minn. Rule 7825.2800 through 7825.2840, as well as a procedural schedule for the Petition.

**E. Utility Employee Responsible for Filing**

Claire Vatalaro  
Regulatory Compliance Specialist  
Minnesota Power  
30 West Superior Street  
Duluth, MN 55802  
(218) 355-3082  
cvatalaro@allete.com(email)

**F. Official Service List**

Pursuant to Minn. Rule 7829.0700, Minnesota Power respectfully requests the following persons to be included on the Commission’s official service list for this proceeding:

Matthew Brodin  
Senior Attorney  
Minnesota Power  
30 West Superior Street  
Duluth, MN 55802  
(218) 355-3152  
[mbrodin@allete.com](mailto:mbrodin@allete.com)

Claire Vatalaro  
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<sup>1</sup> In the Matter of an Investigation into the Appropriateness of Continuing to Permit Electric Energy Cost Adjustments, Docket No. E999/CI-03-802.

Information Request service list for this proceeding:

Matthew Brodin	Caire Vatalaro
Senior Attorney	Regulatory Compliance Specialist
Minnesota Power	Minnesota Power
30 West Superior Street	30 West Superior Street
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Minnesota Power Discovery Manager  
[discoverymanager@mnpower.com](mailto:discoverymanager@mnpower.com)

Minnesota Power Regulatory Compliance  
[MPRegulatoryCompliance@mnpower.com](mailto:MPRegulatoryCompliance@mnpower.com)

#### **G. Service on Other Parties**

Minnesota Power has electronically filed this report with the Minnesota Public Utilities Commission, and copies of the Notice of Report Availability have been served on the parties on the attached service lists.

#### **H. Filing Summary**

Pursuant to Minn. Rule 7829.1300, subp. 1, a one-paragraph summary of this filing accompanies this Report.

### **III. TRADE SECRET JUSTIFICATION**

Various attachments to this filing contain information that Minnesota Power considers trade secret. The Company believes this filing comports with the Commission's Notice relating to Revised Procedures for handling Trade Secret and Privileged Data, pursuant to Minn. Rule 7829.0500. As required by the revised procedures, a statement providing the justification for excising the trade secret data is included.

#### IV. DESCRIPTION AND PURPOSE OF FILING

This filing contains information provided in compliance with Minn. Rules 7825.2800 through 7825.2840, Order Point 7 of the June 2019 Order, and Order Points 5, 6 and 7 in the Lessons Learned Report in Docket Number E999/CI-03-802. The Commission's June 2019 Order approved a variance to Minn. Rules 7825.2800 through 7825.2840 and reporting requirements for the annual forecast and true-up filings.

In the June 2019 Order in Docket No. E999/CI-03-802, Order Points 1 and 7 state the following:

##### Order Point 1

*"The Commission approves variances to Minn. R. 7825.2800, .2810, .2820, .2830, and .2840 in accordance with the language stated above in Section II."*

##### Order Point 7

*"The Commission adopts the reporting changes outlined in Attachments 1, 2, and 3 of the joint comments with the following reporting requirement added to the annual true-up filing: each Electric Utility shall provide a complete analysis and discussion of the consequences of self-commitment and self-scheduling of their generators, including the annual difference between production costs and corresponding prevailing market prices."*

Then as part of the November 13, 2019 Order in Docket No. E999/AA-18-373, Order Point 9 states:

*"The Commission will open an investigation in a separate docket and require Minnesota Power, Otter Tail, and Xcel to report their future self-commitment and self-scheduling analyses using a consistent methodology by including fuel cost and variable O&M costs, matching the offer curve submitted to MISO energy markets."*

Minnesota Power's annual compliance report regarding self-commitment and self-scheduling of large base load generators was filed on March 1, 2024, in Docket No. E999/CI-19-704.

The Lessons Learned Report, Docket No. E999/CI-03-802, Order Points 5, 6, and 7 state the following:

Order Point 5

*“Require Minnesota Power to incorporate recurring Information Request items into future FCA filings which include 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.*

Order Point 6

*“Require Minnesota Power to incorporate a comparison of the actual winter energy purchase amounts to the forecast amounts with an explanation of a variance of five percent or greater into future FCA filings.”*

Order Point 7

*“Approve Minnesota Power’s proposed changes to the MISO Costs attachment in the annual FCA forecast filing.”*

Currently, the Company does not make winter energy specific purchases, so Order Point 6 is inapplicable to this filing. The changes to the FCA calculation component, generation cost, purchase cost, inter-system sale, outage, and MISO cost attachments have been incorporated into this filing.

**Rule 7825.2800 Annual Reports: Policies and Action**

Attachment 2 includes information regarding Minnesota Power’s fuel and energy source procurement and energy dispatching policies.

**Rule 7825.2810 Annual Report: Automatic Adjustment Charges**

Attachment 1 includes Minnesota Power’s forecast of Automatic Adjustment Charges for the period of January 2025 through December 2025.

On December 23, 2019, in Docket Nos. E015/MR-19-443 and E015/GR-19-442 the Commission approved the Company’s proposed changes to the base cost of energy. The Company moved all fuel related costs to the Fuel and Purchased Energy (“FPE”) Charge, with zero cost of fuel in the base energy rate, effective January 1, 2020.

**Rule 7825.2820 Annual Auditor’s Report**

The Independent Auditor’s Report is filed annually on March 1 with the True Up Report in accordance with the Commissions June 2019 Order.

**Rule 7825.2830 Annual Five-Year Projection**

Attachment 6 includes Minnesota Power’s annual five-year projection.

**Rule 7825.2840 Annual Notice of Reports Availability**

Attachment 7 includes the service lists of the interveners in the previous two general rate cases.

**Other Reports and Information included in the FAC Forecast**

- Attachment No. 3 – Monthly MISO Day 2 Charges and Allocation
- Attachment No. 4 – Auction Revenue Rights Process and Information
- Attachment No. 5 – Plant Outage Reporting

**V. 2025 FORECAST FUEL AND PURCHASED ENERGY COSTS**

Minnesota Power’s forecasted 2025 FPE rates are based on assumptions and information known at the time the forecast was developed. Tables 1 through 3 below summarize the overall forecasted FPE for 2025. For detailed calculations and assumptions see Attachment 1.

**Table 1: Forecasted Fuel Cost Summary**

	<b>2025 Forecast</b>
Company’s Generating Stations	\$131,822,689
Plus: Purchased Energy	\$228,880,278
Plus: MISO Charges	\$39,304,154
Less: MISO Schedules 16, 17, & 24	\$(306,699)
Less: Costs Recovered through Inter-System Sales	\$132,731,488
Less: Costs Related to Solar	\$2,597,139
Plus: Time of Generation and Solar Energy Adjustment	\$1,387,347
<b>Total Cost of Fuel</b>	<b>\$266,372,540</b>
<b>Total Fuel Clause Sales (MWh)</b>	<b>8,997,900</b>
<b>Average Cost of Fuel (¢/kWh)</b>	<b>2.955</b>

**Table 2: Forecasted Sales (MWh)**

	<b>2025 Forecasted Sales</b>
<b>Total Sales of Electricity</b>	<b>12,710,739</b>
Residential	1,040,641
Commercial	1,202,801
Large Power Taconite	4,190,960

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TRADE SECRET DATA EXCISED**

Large Power Paper and Pulp	601,791
Large Power Pipeline	321,073
Other Miscellaneous	318,858
Municipals	1,378,882
Inter System Sales	3,655,733
<b>Less: Inter System Sales</b>	<b>3,655,733</b>
Customer Intersystem Sales	1,011,240
Market Sales	2,640,408
Station Service	4,085
Sales due to Retail Loss of Load	0
<b>Less: Solar Generation &amp; Purchases</b>	<b>57,106</b>
<b>Total Fuel Clause Sales</b>	<b>8,997,900</b>

Table 3 below shows Minnesota Power’s proposed monthly forecasted rates to be implemented January 1, 2025.

**Table 3: Proposed Monthly FPE Forecasted Rates (¢/kWh)**

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
3.262	3.105	2.821	2.817	2.804	2.722	3.019	3.192	2.952	2.811	2.773	3.186

Minnesota Power will update the Company’s web site with the full year of monthly fuel cost charges by December 1, 2024, or upon issuance of the Commission’s Order. The rates will be presented at the following link:

<https://www.mnpower.com/CustomerService/YourBill>

**Revised Tariff Sheet**

Minnesota Power will submit a compliance within 10-days of the Commission Order with a redline and clean revision of the FPE Rider to reflect approved rates.



## VI. CONCLUSION

Minnesota Power submits this annual forecast report pursuant to the Commission's rules regarding Automatic Adjustment of Charges and respectfully requests the Commission approve the FPE Forecasted Rates for January 1, 2025 through December 31, 2025.

Dated: May 1, 2024

Respectfully Submitted,

*Claire Vatalaro*

Claire Vatalaro  
Regulatory Compliance Specialist  
Minnesota Power  
30 W Superior Street  
Duluth, MN 55802

**STATEMENT REGARDING JUSTIFICATION FOR EXCISING  
TRADE SECRET INFORMATION**

Minnesota Power has excised material from the Annual Automatic Adjustment of Charges Report ("Report") because the format of the Report requires Minnesota Power to compile and provide information regarding its methods, techniques and process for obtaining and managing fuel supply resources for its generating facilities, including fuel supply, contract terms and conditions, as well as fuel cost projections. This is highly confidential information: Minnesota Power's competitors, as well as its potential suppliers, would gain a commercial advantage over Minnesota Power if this information was publicly available. As a result of public availability, Minnesota Power and its customers would suffer from corruption of Minnesota Power's negotiating position. Minnesota Power follows strict internal procedures to maintain the secrecy of this information in order to capitalize on economic value of the information to Minnesota Power.

Minnesota Power believes that this statement justifies why the information excised from the attached Report should remain a trade secret under Minn. Stat. §13.37. Minnesota Power respectfully requests the opportunity to provide additional justification in the event of a challenge to the trade secret designation provided herein.

**Forecast of Automatic Adjustment Charges for the period of  
January 2025 through December 2025**

Minn. Rule 7825.2810  
Docket No. E,G999/AA-04-1279

## 2025 FAC Forecast Assumptions

### A. Model and Forward Energy Prices

#### *RTSim Model:*

Minnesota Power uses the RTSim production cost model for budgeting and planning purposes. The RTSim model is a detailed hourly simulation that dispatches generation to meet customer load requirements, while simultaneously factoring in bilateral contracts and the energy market and assigns the appropriate energy costs to customers. The inputs that drive the model include customer loads, forecasted forward energy prices, contract energy purchases and sales, and generation parameters (i.e., fuel costs, maintenance schedules, etc.) The model's output includes the energy and costs for thermal generation, hydro generation, wind generation, bilateral contracts, and MISO market purchases and sales.

#### *Forward Energy Prices:*

The 2025 energy price outlook Minnesota Power used is based on a 10-business day average of forward market energy price at close from January 29, 2024 through February 9, 2024. For 2025, the on-peak average was [TRADE SECRET DATA BEGINS [REDACTED] TRADE SECRET DATA ENDS] while the off-peak average was [TRADE SECRET DATA BEGINS [REDACTED] TRADE SECRET DATA ENDS]. The market prices are used in the model for generation dispatch and the MISO market purchase costs or MISO market sales revenues. The table below includes the average, on-peak and off-peak price for 2025 by month that was used in the FAC Forecast.

2025 Forward Market Prices (\$/MWh)		
	On Peak	Off Peak
	[TRADE SECRET DATA BEGINS [REDACTED] TRADE SECRET DATA ENDS]	
January	[REDACTED]	
February	[REDACTED]	
March	[REDACTED]	
April	[REDACTED]	
May	[REDACTED]	
June	[REDACTED]	
July	[REDACTED]	
August	[REDACTED]	
September	[REDACTED]	
October	[REDACTED]	

November	[REDACTED]
December	
<b>12 Month Average</b>	
	<b>TRADE SECRET DATA ENDS]</b>

## B. Customer Sales

### *Residential:*

- See the 2023 AFR E-999/PR-23-11.
- The forecast of Residential class sales is primarily driven by residential customer account growth (Regional housing starts), weather, and energy efficiency.

### *Commercial:*

- See the 2023 AFR E-999/PR-23-11.
- The primary drivers of Commercial energy sales are commercial customer account growth (Gross Metro Product), weather, regional employment and population, and conservation. The modeling also accounts for some irregular energy consumption behavior due to COVID-19 restrictions in recent history. The econometric results are adjusted for the expected installation of new customer-owned generation.

### *Taconite:*

- Mining customers operating at levels reflective of 35 million dry tax tons.
- Routine maintenance incorporated based on historical trends and customer business plans, if known.
- Inter-System sales such as Incremental Production Service (“IPS”) fixed and variable non-firm are based on contract terms, historical trends and customer business plans, if known.

### *Paper and Pulp:*

- Three paper and pulp customers reflective of 2019 operating levels and one customer reflective of operating levels based on an ownership change.
- Routine maintenance incorporated based on historical trends and customer business plans, if known.

- Inter-System sales such as IPS, Replacement Firm Power Service (“RFPS”), Economy, and Non-firm developed based on contract terms, historical trends and customer business plans, if known.

*Pipelines:*

- 2-year average with one pipeline customer.

*Other Miscellaneous:*

- See the 2023 AFR E-999/PR-23-11.
- Other large industrial customers assume a 3-year (2021-2023) historical average of annual sales to the customers. Adjustments are applied for any known or expected change in operation that would impact energy sales.

*Municipals:*

- 13 customers reflect a new contract (implemented January 1, 2022) with reduced firm demand and energy sales.
- 1 customer reflects an increase in load relative to recent years due to change in pipeline pumping operations and restart of a large oil refinery
- Hibbing Public Utilities reflects a new agreement that incorporates the city utilizing their own generation and market to serve their load removing their firm demand and energy sales.

*Losses:*

- Transmission losses are allocated to Firm Transmission service, Non-Firm Transmission, and Distribution-level service based on their projected energy requirements and expected losses at each level of service.
  - Total transmission losses allocated to Firm transmission customers is about 222,000 MWh.
  - Total losses allocated to Firm Distribution customers is approximately 241,000 MWh (Transmission loss = 90,000) + (Distribution loss = 151,000)

### C. Generation Costs

#### *Boswell:*

- 2024 year-end inventory fuel volume and total \$ as forecasted in February 2024 latest estimate provides January 1, 2025, beginning fuel inventory.
- Fuel cost forecast provided is for Minnesota Power share only (WPPI Energy (“WPPI”) owns 12.5 percent of inventory per the Minnesota Power/WPPI Operating Agreement).
- 2025 delivery volume is based upon maintaining a **[TRADE SECRET DATA BEGINS [REDACTED] TRADE SECRET DATA ENDS]** inventory target as approved by Minnesota Power Fuel Strategy Group.
  - Rail transportation cost is based on L.E. Peabody forecast with All-LF escalator.
  - Rail fuel surcharge based upon EIA diesel forecast.
  - Coal topper pricing escalated 2 percent from 2023.
  - Coal commodity cost is based on actual coal 2025 coal contracts and open position based upon L.E. Peabody and Associates forecast.
  - Previous month’s ending inventory (Total MMBtus and \$) + Current month coal deliveries (Total MMBtus and \$) = weighted average current month coal burn cost.
- Coal burn based upon generation formulated in RTSim modeling.
- Outages as provided by Generation Operations.
- 2025 Montana / Wyoming coal blend ratios remain consistent with 2024 target (60 percent Wyoming, 40 percent Montana for Boswell Energy Center (“BEC”) 3 and 50 percent Wyoming / 50 percent Montana for BEC 4).
- Natural gas costs based upon 2025 Henry Hub Forward Natural Gas Curve, from Gas Daily and includes pipeline tariff cost.

#### *Hibbard:*

- Biomass burn based upon generation formulated in RTSim modeling.
- Biomass Pricing based upon 2025 forecasted forest residue pricing.

- Natural gas costs based upon 2025 Henry Hub Forward Natural Gas Curve, from Gas Daily, and includes City of Duluth Comfort Systems transportation charges.
- Also see Attachment 2, "Fuel Procurement" for additional support.

*Laskin:*

- Natural Gas burn based upon generation formulated in RTSim modeling.
- Natural gas costs based on 2025 Henry Hub Forward Natural Gas Curve, from Gas Daily, and pipeline transportation based upon actual supplier contract formula pricing.
- Also see Attachment 2, "Fuel Procurement" for additional support.

*Wind:*

- Minnesota Power used a 5-year historical average to estimate wind generation levels.
- Wind generation owned by Minnesota Power has a \$0 fuel cost.

*Hydro:*

- Minnesota Power used a 5-year historical average to estimate hydro generation levels.
- Hydro generation owned by Minnesota Power has a \$0 fuel cost.

## **D. Purchase Costs**

*Manitoba Hydro:*

- Contract Terms - Refer to Docket No. E015/M-11-938
- Contract Terms - Refer to Docket No. E015/M-14-960

*Minnkota Power Cooperation:*

- Station Service Contract Terms - Refer to Docket No. E015/AA-19-302
- Renewable Source Contract Terms - Refer to E015/GR-16-664. Purchase is offset by the sale to the renewable source customers in "Inter-system Sales Forecast."

*Purchase to serve Non-Firm Retail Customer:*

- Based on customers load - No purchase made so price has been estimated.



*Oliver County 1:*

- Generation - Refer to Docket No. E015/M-05-975

*Oliver County 2:*

- Generation - Refer to Docket No. E015/M-07-216

*Wing River:*

- Generation - Refer to Docket No. E015/M-07-537

*Nobles:*

- Generation - Refer to Docket No. E015/M-18-545

*Square Butte:*

- Generation - Refer to Docket No. E015/PA-09-526

*SES 20MW Solar:*

- Generation - Refer to Docket No. E015/M-20-828
- Costs and generation will go to the Solar Energy Adjustment (“SEA”)

*Purchase to Serve Municipal Solar Energy:*

- Purchase to procure solar energy for a municipal customer. Purchase is offset by the sale to the municipal customer in “Inter-system Sales Forecast.”

*Market Purchase:*

- Minnesota Power uses the RTSim production cost model to determine the volume and cost for MISO market purchases. When additional energy is needed to serve load or it is lower cost to purchase energy from the market than to generate energy from Minnesota Power’s dispatchable fleet, the model will utilize the MISO market for purchases.

**E. Inter-System Sales**

*IPS and RFPS:*

- Contract - Developed based on contract terms, historical trends, and customer business plans, if known.

*Economy and Non-Firm:*

- Contract - Developed based on contract terms, historical trends, and customer business plans, if known.

*Municipal Incremental:*

- 13 customers have a new contract with reduced firm demand and energy sales.
- Contract - Developed based on contract terms, historical trends, and customer business plans, if known.

*Municipal Solar Energy:*

- Sales side of the direct pass through of the “Purchase to Serve Municipal Solar Energy.”

*Oconto:*

- Contract Terms - Refer to Docket No. E015/AA-19-302

*Hibbing Public Utilities:*

- Customer outlook reflects the new agreement that incorporates the city utilizing their own generation and market to serve their load removing their firm demand and energy sales.
- Contract Terms - Refer to Docket No. E015/M-21-28.

*Minnkota Power Cooperation:*

- Renewable Source - Sales side of the direct cost pass through of the “Minnkota Power Cooperation Renewable Source”.

*Asset Based Sales (Non-MISO):*

- Minnesota Power uses a RTSim production cost model to determine when a sale is an asset-based sale or liquidation sale.
- For 2025, no asset-based sales to a counterparty have been forecasted.

*Liquidated Sales (Non-MISO):*

- Minnesota Power uses a RTSim production cost model to determine when a sale is an asset-based sale or liquidation sale.
- For 2025, no liquidation sales to a counterparty have been forecasted.

*MISO Market Sales:*

- Variable- Minnesota Power uses a RTSim production cost model to determine the volume and cost for MISO market sales. When excess energy is available and it's economical, the model will sell the excess energy into the MISO market.
- MISO Market Sales are either an asset-based sale or liquidation sale.

*Minnkota Power Liquidation:*

- Refer to Docket No. E015/AA-19-302

*Oliver County 1:*

- Station Service - January through December 2023 Average

*Oliver County 2:*

- Station Service - January through December 2023 Average

*WPPI Energy:*

- Station Service - January through December 2023 average per day multiplied by the 2025 forecasted scheduled and forced outages at BEC 4. See Attachment 5 for outage assumptions.

*MISO Costs:*

- See Attachment 3 for MISO Costs breakdown and assumptions.

*Asset Based Sales Margins:*

- Minnesota Power uses a RTSim production cost model to determine when a sale is an asset-based sale. The margins from these sales are included in the FAC Calculation (Attachment 1 – 2025 FAC Forecast Calculation) per the Rate Case Resolution Docket Nos. E015/GR-19-442 and E015/M-20-429.
- The margin from the Municipal Incremental Sale is also included in the Asset Based Sales Margins



**PUBLIC DOCUMENT  
TRADE SECRET DATA EXCISED**

Attachment 1- 2025 Comparison

Line No.	Year	\$/MWh		\$/MWh		\$/MWh		\$/MWh		3 Year Average	3 Year Average
		Total 2025 Forecast	2025 Forecast	Total 2021 Actuals	2021 Actuals	Total 2022 Actuals	2022 Actuals	Total 2023 Actuals	2023 Actuals		
1	Cost of Fuel										
	Company's Generating Stations	\$131,822,689		\$111,316,951		\$130,269,082		\$120,798,378		\$120,794,804	
		[TRADE SECRET DATA BEGINS]									
	Thermal										
	Thermal MWh										
	Wind										
	Wind MWh										
	Hydro										
	Hydro MWh										
		[TRADE SECRET DATA ENDS]									
2	Plus: Purchased Energy	\$228,880,278		\$302,780,486		\$262,867,849		\$255,150,291		\$273,599,542	
		[TRADE SECRET DATA BEGINS]									
	Market										
	Market MWh										
	Wind										
	Wind MWh										
	Solar										
	Solar MWh										
	Square Butte										
	Square Butte MWh										
		[TRADE SECRET DATA ENDS]									
3	Plus: MISO Charges	\$39,304,154		\$64,223,807		\$59,750,884		\$24,240,451		\$49,405,048	
4	Less: MISO Schedules 16 & 17 & 24	(\$306,699)		(\$79,627)		(\$406,916)		(\$434,364)		(\$306,969)	
	Schedule 16	\$1,327,527		\$1,449,028		\$1,534,966		\$1,662,082		\$1,548,692	
	Schedule 17	\$231,774		\$29,463		\$35,351		\$34,511		\$33,108	
	Schedule 24	(\$1,866,000)		(\$1,568,118)		(\$1,977,233)		(\$2,130,957)		(\$1,888,769)	
5	Less: Fuel Cost Recovered Through Inter-System Sales	\$132,731,488		\$160,780,204		\$167,749,176		\$129,080,438		\$152,536,606	
		[TRADE SECRET DATA BEGINS]									
	Customer Inter-System Sales										
	Customer Inter-System Sales MWh										
	Market Sales										
	Market Sales MWh										
	Station Service										
	Station Service MWh										
	MISO Costs 1/	\$4,957,940		\$8,513,787		\$6,881,946		\$2,300,264		\$5,898,666	
	Sales due to Retail Loss of Load										
	Sales due to Retail Loss of Load MWh										
	Asset Based Sale Margins	\$16,073,704		\$5,260,590		\$25,458,189		\$20,658,377		\$17,125,719	
		[TRADE SECRET DATA ENDS]									
6	Less: Costs Related to Solar	\$2,597,139		\$1,366		\$83		\$1,354,052		\$451,834	
7	Plus: Time of Generation and Solar Energy Adjustment	\$1,387,347		\$386,358		\$440,270		\$1,191,444		\$672,690	
8	<b>Total Monthly Cost of Fuel</b>	<b>\$266,372,540</b>		<b>\$318,005,659</b>		<b>\$285,985,742</b>		<b>\$271,380,438</b>		<b>\$291,790,613</b>	
		<u>2025 Forecast</u>		<u>2021 Actuals</u>		<u>2022 Actuals</u>		<u>2023 Actuals</u>		<u>3 Year Average</u>	
9	MWh Sales										
	Total Sales of Electricity	12,710,739		14,566,917		12,948,280		12,796,580		13,437,259	
	Residential	1,040,641		1,043,665		1,063,695		1,013,751		1,040,370	
	Commercial	1,202,801		1,174,413		1,181,292		1,179,547		1,178,417	
	LP Taconite	4,190,960		4,428,819		4,297,541		4,410,110		4,378,823	
	LP Paper and Pulp	601,791		489,259		490,030		533,667		504,319	
	LP Pipeline	321,073		341,031		305,030		336,125		327,395	
	Other Misc.	318,858		341,353		341,716		355,881		346,317	
	Municipals	1,378,882		1,393,315		1,299,049		1,338,625		1,343,663	
	Inter System Sales	3,655,733		5,355,063		3,969,927		3,628,874		4,317,955	
10	Less: Inter-System Sales	3,655,733		5,355,063		3,969,927		3,628,874		4,317,955	
	Customer Inter-System Sales	1,011,240		1,067,722		820,924		809,093		899,246	
	Market Sales	2,640,408		3,412,055		3,140,614		2,812,719		3,121,796	
	Station Service	4,085		6,126		8,390		7,063		7,193	
	Sales due to Retail and Resale Loss of Load	0		869,160		0		0		289,720	
11	Less: Solar Generation and Purchased kWh	57,106		17,215		16,112		38,441		23,923	
12	<b>Total Monthly kWh Sales</b>	<b>8,997,900</b>		<b>9,194,640</b>		<b>8,962,240</b>		<b>9,129,265</b>		<b>9,095,382</b>	

1/ No MWhs associated with MISO Costs

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TRADE SECRET DATA EXCISED**

Attachment 1- 2023 Variance

Line No.	Year	\$/MWh		\$/MWh		\$/MWh Variance	Explanation- Differences of 5% or more
		Total 2025 Forecast	2025 Forecast	Total 2023 Actuals	2023 Actuals		
1	<b>Cost of Fuel</b>						
	<b>Company's Generating Stations</b>	\$131,822,689		\$120,798,378			
		[TRADE SECRET DATA BEGINS]					
	Thermal <i>Thermal MWh</i>					-2.00%	
	Wind <i>Wind MWh</i>					0.00%	
	Hydro <i>Hydro MWh</i>					0.00%	
		[TRADE SECRET DATA ENDS]					
2	<b>Plus: Purchased Energy</b>	\$228,880,278		\$255,150,291			
		[TRADE SECRET DATA BEGINS]					
	Market <i>Market MWh</i>					4.64%	
	Wind <i>Wind MWh</i>					1.38%	
	Solar <i>Solar MWh</i>					5.57%	Higher solar generation forecasted along with increased price due to annual contract price increases.
	Square Butte <i>Square Butte MWh</i>					7.44%	Increased fuel cost forecasted for 2025. Fuel cost forecast comes from MPC.
		[TRADE SECRET DATA ENDS]					
3	<b>Plus: MISO Charges</b>	\$39,304,154		\$24,240,451			
4	<b>Less: MISO Schedules 16 &amp; 17 &amp; 24</b>	(\$306,699)		(\$434,364)			
	Schedule 16	\$1,327,527		\$1,662,082			
	Schedule 17	\$231,774		\$34,511			
	Schedule 24	(\$1,866,000)		(\$2,130,957)			
5	<b>Less: Fuel Cost Recovered Through Inter-System Sales</b>	\$132,731,488		\$129,080,438			
		[TRADE SECRET DATA BEGINS]					
	Customer Inter-System Sales <i>Customer Inter-System Sales MWh</i>					19.18%	Increased customer intersystem sales forecasted specifically related to Economy and Non Firm energy.
	Market Sales <i>Market Sales MWh</i>					-3.04%	
	Station Service <i>Station Service MWh</i>					-17.95%	Less WPP1 station service forecasted in 2025 due to less forced outage days forecasted at Boswell 4 in 2025 than 2023 actual forced outage days.
	MISO Costs 1/ Sales due to Retail Loss of Load <i>Sales due to Retail Loss of Load MWh</i>	\$4,957,940		\$2,300,264			
	Asset Based Sale Margins	\$16,073,704		\$20,658,377			
		[TRADE SECRET DATA ENDS]					
6	<b>Less: Costs Related to Solar</b>	\$2,597,139		\$1,354,052			
7	<b>Plus: Time of Generation and Solar Energy Adjustment</b>	\$1,387,347		\$1,191,444			
8	<b>Total Monthly Cost of Fuel</b>	\$266,372,540		\$271,380,438			

**PUBLIC DOCUMENT  
TRADE SECRET DATA EXCISED**

Attachment 1- 3 Year Variance

Line No.	Year	Total 2025 Forecast	\$/MWh 2025 Forecast	3 Year Average 2021 - 2023	3 Year Average \$/MWh	\$/MWH Variance	Explanation- Differences of 5% or more
1	Company's Generating Stations	\$131,822,689		\$120,794,804			
	[TRADE SECRET DATA BEGINS]						
	Thermal <i>Thermal MWh</i>					-0.91%	
	Wind <i>Wind MWh</i>					0.00%	
	Hydro <i>Hydro MWh</i>					0.00%	
	TRADE SECRET DATA ENDS]						
2	Plus: Purchased Energy	\$228,880,278		\$273,599,542			
	[TRADE SECRET DATA BEGINS]						
	Market <i>Market MWh</i>					2.11%	
	Wind <i>Wind MWh</i>					1.99%	
	Solar <i>Solar MWh</i>					5.89%	Higher solar generation forecasted along with increased price due to annual contract price increases.
	Square Butte <i>Square Butte MWh</i>					15.81%	Increased fuel cost forecasted for 2025. Fuel cost forecast comes from MPC.
	TRADE SECRET DATA ENDS]						
3	Plus: MISO Charges	\$39,304,154		\$49,405,048			
4	Less: MISO Schedules 16 & 17 & 24	(\$306,699)		(\$306,969)			
	Schedule 16	\$1,327,527		\$1,548,692			
	Schedule 17	\$231,774		\$33,108			
	Schedule 24	(\$1,866,000)		(\$1,888,769)			
5	Less: Fuel Cost Recovered Through Inter-System Sales	\$132,731,488		\$152,536,606			
	[TRADE SECRET DATA BEGINS]						
	Customer Inter-System Sales <i>Customer Inter-System Sales MWh</i>					0.15%	
	Market Sales <i>Market Sales MWh</i>					0.63%	
	Station Service <i>Station Service MWh</i>					-24.90%	Less WPP1 station service forecasted in 2025 due to less forced outage days forecasted at Boswell 4 in 2025 than 2021-2023 actual forced outage days.
	MISO Costs / Sales due to Retail Loss of Load <i>Sales due to Retail Loss of Load MWh</i>	\$4,957,940		\$5,898,666			
	Asset Based Sale Margins	\$16,073,704		\$17,125,719			
	TRADE SECRET DATA ENDS]						
6	Less: Costs Related to Solar	\$2,597,139		\$451,834			
7	Plus: Time of Generation and Solar Energy Adjustment	\$1,387,347		\$672,690			
8	<b>Total Monthly Cost of Fuel</b>	<b>\$266,372,540</b>		<b>\$291,790,613</b>			

**PUBLIC DOCUMENT  
TRADE SECRET DATA EXCISED**

Thermal Generation													
	Jan-25	Feb-25	Mar-25	Apr-25	May-25	Jun-25	Jul-25	Aug-25	Sep-25	Oct-25	Nov-25	Dec-25	Total
Generation - Coal													
TRADE SECRET DATA BEGINS													
Boswell 3	MWh												
Average Cost	TRADE SECRET DATA BEGINS												
Total Cost	\$ 5,062,544	\$ 4,092,536	\$ 3,518,783	\$ 2,843,269	\$ 3,701,884	\$ 3,618,587	\$ 4,247,649	\$ 4,828,032	\$ 4,195,958	\$ 3,778,563	\$ 4,363,974	\$ 5,145,353	\$ 49,397,131
TRADE SECRET DATA ENDS]													
TRADE SECRET DATA BEGINS													
Boswell 4	MWh												
Average Cost	TRADE SECRET DATA BEGINS												
Total Cost	\$ 6,859,371	\$ 5,702,070	\$ 5,514,819	\$ 4,462,606	\$ 2,563,128	\$ 5,254,381	\$ 6,074,269	\$ 6,369,148	\$ 5,041,453	\$ 6,450,986	\$ 6,154,081	\$ 7,323,468	\$ 67,769,780
TRADE SECRET DATA ENDS]													
Total Generation Coal	\$ 11,921,915	\$ 9,794,606	\$ 9,033,601	\$ 7,305,875	\$ 6,265,012	\$ 8,872,969	\$ 10,321,917	\$ 11,197,180	\$ 9,237,412	\$ 10,229,549	\$ 10,518,055	\$ 12,468,821	\$ 117,166,912
Generation - Gas													
TRADE SECRET DATA BEGINS													
Laskin 1	MWh												
Average Cost	TRADE SECRET DATA BEGINS												
Total Cost	\$ 61,865	\$ -	\$ -	\$ 170,935	\$ 220,755	\$ 429,481	\$ 906,131	\$ 539,625	\$ 513,876	\$ 350,189	\$ 283,975	\$ 66,920	\$ 3,543,752
TRADE SECRET DATA ENDS]													
TRADE SECRET DATA BEGINS													
Laskin 2	MWh												
Average Cost	TRADE SECRET DATA BEGINS												
Total Cost	\$ 61,865	\$ -	\$ -	\$ 261,521	\$ 220,755	\$ 463,814	\$ 895,949	\$ 531,760	\$ 513,876	\$ 259,059	\$ 215,526	\$ 66,920	\$ 3,491,045
TRADE SECRET DATA ENDS]													
Total Generation Gas	\$ 123,729	\$ -	\$ -	\$ 432,456	\$ 441,511	\$ 893,295	\$ 1,802,081	\$ 1,071,385	\$ 1,027,753	\$ 609,247	\$ 499,502	\$ 133,839	\$ 7,034,797
Generation - Biofuel													
TRADE SECRET DATA BEGINS													
Hibbard 3	MWh												
Average Cost	TRADE SECRET DATA BEGINS												
Total Cost	\$ 483,388	\$ 291,080	\$ -	\$ 170,215	\$ 27,742	\$ 276,709	\$ 260,549	\$ -	\$ 202,260	\$ 411,111	\$ 493,701	\$ 775,886	\$ 3,392,643
TRADE SECRET DATA ENDS]													
TRADE SECRET DATA BEGINS													
Hibbard 4	MWh												
Average Cost	TRADE SECRET DATA BEGINS												
Total Cost	\$ 726,398	\$ 604,657	\$ 545,194	\$ 38,567	\$ -	\$ 91,982	\$ 523,464	\$ 430,573	\$ 374,940	\$ 135,241	\$ 142,341	\$ 614,980	\$ 4,228,338
TRADE SECRET DATA ENDS]													
Total Generation Biofuel	\$ 1,209,786	\$ 895,737	\$ 545,194	\$ 208,782	\$ 27,742	\$ 368,691	\$ 784,013	\$ 430,573	\$ 577,200	\$ 546,352	\$ 636,043	\$ 1,390,867	\$ 7,620,980
Total Thermal Generation	\$ 13,255,431	\$ 10,690,343	\$ 9,578,795	\$ 7,947,113	\$ 6,734,265	\$ 10,134,955	\$ 12,908,011	\$ 12,699,138	\$ 10,842,365	\$ 11,385,149	\$ 11,653,599	\$ 13,993,527	\$ 131,822,689

Wind Generation													
	Jan-25	Feb-25	Mar-25	Apr-25	May-25	Jun-25	Jul-25	Aug-25	Sep-25	Oct-25	Nov-25	Dec-25	Total
Bison													
MWh													
Average Cost	TRADE SECRET DATA BEGINS												
Total Cost	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
TRADE SECRET DATA ENDS]													
Tac Ridge													
MWh													
Average Cost	TRADE SECRET DATA BEGINS												
Total Cost	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
TRADE SECRET DATA ENDS]													
Total Wind Generation	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

Hydro Generation													
	Jan-25	Feb-25	Mar-25	Apr-25	May-25	Jun-25	Jul-25	Aug-25	Sep-25	Oct-25	Nov-25	Dec-25	Total
Hydro													
MWh													
Average Cost	TRADE SECRET DATA BEGINS												
Total Cost	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
TRADE SECRET DATA ENDS]													
Total Hydro Generation	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

Total Company Generation													
	Jan-25	Feb-25	Mar-25	Apr-25	May-25	Jun-25	Jul-25	Aug-25	Sep-25	Oct-25	Nov-25	Dec-25	Total
Total Company Generation	\$ 13,255,431	\$ 10,690,343	\$ 9,578,795	\$ 7,947,113	\$ 6,734,265	\$ 10,134,955	\$ 12,908,011	\$ 12,699,138	\$ 10,842,365	\$ 11,385,149	\$ 11,653,599	\$ 13,993,527	\$ 131,822,689



Thermal Generation					
	2025 Forecast	2021 Actuals	2022 Actuals	2023 Actuals	3 Year Average
Generation - Coal					
Boswell 3	[TRADE SECRET DATA BEGINS]				
MWh					
Average Cost					
Total Cost	\$ 49,397,131	\$ 46,778,306	\$ 52,242,979	\$ 53,904,679	\$ 50,975,321
[TRADE SECRET DATA BEGINS]					
Boswell 4	[TRADE SECRET DATA BEGINS]				
MWh					
Average Cost					
Total Cost	\$ 67,769,780	\$ 53,449,013	\$ 57,234,785	\$ 58,342,766	\$ 56,342,188
[TRADE SECRET DATA BEGINS]					
Total Generation Coal \$	\$ 117,166,912	\$ 100,227,319	\$ 109,477,764	\$ 112,247,444	\$ 107,317,509
Generation - Gas					
Laskin 1	[TRADE SECRET DATA BEGINS]				
MWh					
Average Cost					
Total Cost	\$ 3,543,752	\$ 3,542,131	\$ 6,306,886	\$ 2,355,052	\$ 4,068,023
[TRADE SECRET DATA BEGINS]					
Laskin 2	[TRADE SECRET DATA BEGINS]				
MWh					
Average Cost					
Total Cost	\$ 3,491,045	\$ 3,287,399	\$ 6,961,890	\$ 1,915,269	\$ 4,054,853
[TRADE SECRET DATA BEGINS]					
Total Generation Gas \$	\$ 7,034,797	\$ 6,829,530	\$ 13,268,776	\$ 4,270,321	\$ 8,122,876
Generation - Biofuel					
Hibbard 3	[TRADE SECRET DATA BEGINS]				
MWh					
Average Cost					
Total Cost	\$ 3,392,643	\$ 2,130,051	\$ 3,761,271	\$ 2,149,351	\$ 2,680,224
[TRADE SECRET DATA BEGINS]					
Hibbard 4	[TRADE SECRET DATA BEGINS]				
MWh					
Average Cost					
Total Cost	\$ 4,228,338	\$ 2,130,051	\$ 3,761,271	\$ 2,131,262	\$ 2,674,195
[TRADE SECRET DATA BEGINS]					
Total Generation Biofuel \$	\$ 7,620,980	\$ 4,260,102	\$ 7,522,542	\$ 4,280,613	\$ 5,354,419
Total Thermal Generation \$	\$ 131,822,689	\$ 111,316,951	\$ 130,269,082	\$ 120,798,378	\$ 120,794,804

Wind Generation					
	2025 Forecast	2021 Actuals	2022 Actuals	2023 Actuals	3 Year Average
Bison					
MWh	[TRADE SECRET DATA BEGINS]				
Average Cost					
Total Cost	\$ -	\$ -	\$ -	\$ -	\$ -
[TRADE SECRET DATA BEGINS]					
Tac Ridge					
MWh	[TRADE SECRET DATA BEGINS]				
Average Cost					
Total Cost	\$ -	\$ -	\$ -	\$ -	\$ -
[TRADE SECRET DATA BEGINS]					
Total Wind Generation \$	\$ -	\$ -	\$ -	\$ -	\$ -

Hydro Generation					
	2025 Forecast	2021 Actuals	2022 Actuals	2023 Actuals	3 Year Average
Hydro					
MWh	[TRADE SECRET DATA BEGINS]				
Average Cost					
Total Cost	\$ -	\$ -	\$ -	\$ -	\$ -
[TRADE SECRET DATA BEGINS]					
Total Hydro Generation \$	\$ -	\$ -	\$ -	\$ -	\$ -

Total Company Generation					
	2025 Forecast	2021 Actuals	2022 Actuals	2023 Actuals	3 Year Average
Total Company Generation	\$ 131,822,689	\$ 111,316,951	\$ 130,269,082	\$ 120,798,378	\$ 120,794,804

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Purchase Power Market														
	Jan-25	Feb-25	Mar-25	Apr-25	May-25	Jun-25	Jul-25	Aug-25	Sep-25	Oct-25	Nov-25	Dec-25	Total	
Manitoba Hydro	MWh	TRADE SECRET DATA BEGINS												
	Average Cost	TRADE SECRET DATA BEGINS												
	Total Cost	\$ 8,219,719	\$ 7,377,099	\$ 7,960,362	\$ 7,786,148	\$ 10,505,830	\$ 10,296,295	\$ 11,037,831	\$ 8,004,140	\$ 7,789,444	\$ 8,101,405	\$ 7,731,441	\$ 8,245,043	\$ 103,054,786
		TRADE SECRET DATA ENDS												
Minnkota Power Cooperation Renewable Source	MWh	TRADE SECRET DATA BEGINS												
	Average Cost	TRADE SECRET DATA BEGINS												
	Total Cost	\$ 9,170	\$ 8,890	\$ 8,330	\$ 7,910	\$ 7,420	\$ 6,475	\$ 7,035	\$ 7,420	\$ 7,175	\$ 6,335	\$ 6,615	\$ 8,085	\$ 90,860
		TRADE SECRET DATA ENDS												
Market Purchase	MWh	TRADE SECRET DATA BEGINS												
	Average Cost	TRADE SECRET DATA BEGINS												
	Total Cost	\$ 3,589,049	\$ 2,102,779	\$ 2,277,478	\$ 2,268,755	\$ 2,592,669	\$ 1,580,708	\$ 1,905,192	\$ 2,929,818	\$ 2,704,480	\$ 1,878,158	\$ 1,850,526	\$ 1,393,825	\$ 27,073,437
		TRADE SECRET DATA ENDS												
Minnkota Power Cooperation Station Service	MWh	TRADE SECRET DATA BEGINS												
	Average Cost	TRADE SECRET DATA BEGINS												
	Total Cost	\$ 29,726	\$ 29,726	\$ 29,726	\$ 29,726	\$ 29,726	\$ 29,726	\$ 29,726	\$ 29,726	\$ 29,726	\$ 29,726	\$ 29,726	\$ 29,726	\$ 356,713
		TRADE SECRET DATA ENDS												
Purchase to Serve Non-Firm Retail Customer	MWh	TRADE SECRET DATA BEGINS												
	Average Cost	TRADE SECRET DATA BEGINS												
	Total Cost	\$ 2,824,774	\$ 2,449,432	\$ 1,881,941	\$ 1,685,355	\$ 1,486,876	\$ 2,282,973	\$ 2,869,496	\$ 2,611,401	\$ 2,592,042	\$ 2,382,602	\$ 2,228,372	\$ 3,322,490	\$ 28,617,755
		TRADE SECRET DATA ENDS												
<b>Total Purchase Power Market \$</b>		\$ 14,672,438	\$ 11,967,925	\$ 12,157,837	\$ 11,777,895	\$ 14,622,521	\$ 14,196,177	\$ 15,849,281	\$ 13,582,505	\$ 13,122,867	\$ 12,398,226	\$ 11,846,679	\$ 12,999,169	\$ 159,193,520

Purchase Power Wind														
	Jan-25	Feb-25	Mar-25	Apr-25	May-25	Jun-25	Jul-25	Aug-25	Sep-25	Oct-25	Nov-25	Dec-25	Total	
Oliver 1	MWh	TRADE SECRET DATA BEGINS												
	Average Cost	TRADE SECRET DATA BEGINS												
	Total Cost	\$ 303,064	\$ 302,282	\$ 367,920	\$ 331,795	\$ 272,513	\$ 204,953	\$ 226,171	\$ 240,852	\$ 295,477	\$ 369,080	\$ 375,903	\$ 339,788	\$ 3,629,798
		TRADE SECRET DATA ENDS												
Oliver 2	MWh	TRADE SECRET DATA BEGINS												
	Average Cost	TRADE SECRET DATA BEGINS												
	Total Cost	\$ 533,152	\$ 534,463	\$ 581,787	\$ 535,313	\$ 485,367	\$ 375,098	\$ 368,218	\$ 419,549	\$ 515,234	\$ 621,655	\$ 618,503	\$ 598,292	\$ 6,186,629
		TRADE SECRET DATA ENDS												
Wing River	MWh	TRADE SECRET DATA BEGINS												
	Average Cost	TRADE SECRET DATA BEGINS												
	Total Cost	\$ 21,746	\$ 21,058	\$ 22,481	\$ 25,832	\$ 18,415	\$ 12,892	\$ 11,993	\$ 14,433	\$ 18,272	\$ 21,441	\$ 25,362	\$ 22,671	\$ 236,596
		TRADE SECRET DATA ENDS												
Nobles	MWh	TRADE SECRET DATA BEGINS												
	Average Cost	TRADE SECRET DATA BEGINS												
	Total Cost	\$ 1,737,152	\$ 1,694,275	\$ 1,862,360	\$ 2,067,577	\$ 1,486,858	\$ 1,091,761	\$ 971,520	\$ 1,188,019	\$ 1,407,568	\$ 1,664,976	\$ 1,882,934	\$ 1,771,547	\$ 18,826,546
		TRADE SECRET DATA ENDS												
<b>Total Purchase Power Wind \$</b>		\$ 2,595,114	\$ 2,552,078	\$ 2,834,547	\$ 2,960,516	\$ 2,263,154	\$ 1,684,703	\$ 1,577,901	\$ 1,862,854	\$ 2,236,551	\$ 2,677,151	\$ 2,902,702	\$ 2,732,297	\$ 28,879,568

Purchase Power Solar														
	Jan-25	Feb-25	Mar-25	Apr-25	May-25	Jun-25	Jul-25	Aug-25	Sep-25	Oct-25	Nov-25	Dec-25	Total	
SES 20MW Solar	MWh	TRADE SECRET DATA BEGINS												
	Average Cost	TRADE SECRET DATA BEGINS												
	Total Cost	\$ 99,884	\$ 144,724	\$ 237,829	\$ 264,663	\$ 299,098	\$ 316,155	\$ 356,554	\$ 311,361	\$ 238,953	\$ 157,483	\$ 103,268	\$ 67,167	\$ 2,597,139
		TRADE SECRET DATA ENDS												
Purchase to Serve Municipal Solar Energy	MWh	TRADE SECRET DATA BEGINS												
	Average Cost	TRADE SECRET DATA BEGINS												
	Total Cost	\$ 6,694	\$ 12,390	\$ 20,435	\$ 21,726	\$ 26,776	\$ 28,890	\$ 25,308	\$ 24,436	\$ 20,264	\$ 13,589	\$ 7,152	\$ 3,934	\$ 211,594
		TRADE SECRET DATA ENDS												
<b>Total Purchase Power Solar \$</b>		\$ 106,578	\$ 157,114	\$ 258,264	\$ 286,389	\$ 325,875	\$ 345,046	\$ 381,862	\$ 335,797	\$ 259,217	\$ 171,072	\$ 110,420	\$ 71,101	\$ 2,808,734

Purchase Power- Square Butte													
	Jan-25	Feb-25	Mar-25	Apr-25	May-25	Jun-25	Jul-25	Aug-25	Sep-25	Oct-25	Nov-25	Dec-25	Total
Square Butte	MWh	TRADE SECRET DATA BEGINS											
	Average Cost	TRADE SECRET DATA BEGINS											

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	TRADE SECRET DATA ENDS]																									
Total Cost	\$	3,731,088	\$	3,424,888	\$	3,240,088	\$	3,622,038	\$	3,755,988	\$	3,146,738	\$	3,729,288	\$	3,762,488	\$	519,938	\$	1,691,238	\$	3,551,238	\$	3,823,438	\$	37,998,456
Total Purchase Power Coal	\$	3,731,088	\$	3,424,888	\$	3,240,088	\$	3,622,038	\$	3,755,988	\$	3,146,738	\$	3,729,288	\$	3,762,488	\$	519,938	\$	1,691,238	\$	3,551,238	\$	3,823,438	\$	37,998,456

Total Company Purchase Power																										
	Jan-25	Feb-25	Mar-25	Apr-25	May-25	Jun-25	Jul-25	Aug-25	Sep-25	Oct-25	Nov-25	Dec-25	Total													
Total Company Purchase Power	\$	21,105,218	\$	18,102,005	\$	18,490,736	\$	18,646,838	\$	20,967,538	\$	19,372,664	\$	21,538,332	\$	19,543,644	\$	16,138,573	\$	16,937,687	\$	18,411,039	\$	19,626,004	\$	228,880,278

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Purchase Power- Coal													
	Jan-25	Feb-25	Mar-25	Apr-25	May-25	Jun-25	Jul-25	Aug-25	Sep-25	Oct-25	Nov-25	Dec-25	Total
Square Butte	[TRADE SECRET DATA BEGINS]												
	MWh Average Cost	[TRADE SECRET DATA BEGINS]											
	Total Cost	\$ 3,731,088	\$ 3,424,888	\$ 3,240,088	\$ 3,622,038	\$ 3,755,988	\$ 3,146,738	\$ 3,729,288	\$ 3,762,488	\$ 519,938	\$ 1,691,238	\$ 3,551,238	\$ 3,823,438
<b>Total Purchase Power Coal \$</b>	<b>\$ 3,731,088</b>	<b>\$ 3,424,888</b>	<b>\$ 3,240,088</b>	<b>\$ 3,622,038</b>	<b>\$ 3,755,988</b>	<b>\$ 3,146,738</b>	<b>\$ 3,729,288</b>	<b>\$ 3,762,488</b>	<b>\$ 519,938</b>	<b>\$ 1,691,238</b>	<b>\$ 3,551,238</b>	<b>\$ 3,823,438</b>	<b>\$ 37,998,456</b>

Purchase Power Biomass													
	Jan-25	Feb-25	Mar-25	Apr-25	May-25	Jun-25	Jul-25	Aug-25	Sep-25	Oct-25	Nov-25	Dec-25	Total
	[TRADE SECRET DATA BEGINS]												
	Average Cost	[TRADE SECRET DATA BEGINS]											
	Total Cost	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Total Purchase Power Biomass \$</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>

Purchase Power Hydro													
	Jan-25	Feb-25	Mar-25	Apr-25	May-25	Jun-25	Jul-25	Aug-25	Sep-25	Oct-25	Nov-25	Dec-25	Total
MHEB	[TRADE SECRET DATA BEGINS]												
	MWh Average Cost	[TRADE SECRET DATA BEGINS]											
	Total Cost	\$ 8,219,719	\$ 7,377,099	\$ 7,960,362	\$ 7,786,148	\$ 10,505,830	\$ 10,296,295	\$ 11,037,831	\$ 8,004,140	\$ 7,789,444	\$ 8,101,405	\$ 7,731,441	\$ 8,245,043
<b>Total Purchase Power Hydro \$</b>	<b>\$ 8,219,719</b>	<b>\$ 7,377,099</b>	<b>\$ 7,960,362</b>	<b>\$ 7,786,148</b>	<b>\$ 10,505,830</b>	<b>\$ 10,296,295</b>	<b>\$ 11,037,831</b>	<b>\$ 8,004,140</b>	<b>\$ 7,789,444</b>	<b>\$ 8,101,405</b>	<b>\$ 7,731,441</b>	<b>\$ 8,245,043</b>	<b>\$ 103,054,756</b>

Purchase Power Gas													
	Jan-25	Feb-25	Mar-25	Apr-25	May-25	Jun-25	Jul-25	Aug-25	Sep-25	Oct-25	Nov-25	Dec-25	Total
	[TRADE SECRET DATA BEGINS]												
	Average Cost	[TRADE SECRET DATA BEGINS]											
	Total Cost	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Total Purchase Power Gas \$</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>

Purchase Power Wind													
	Jan-25	Feb-25	Mar-25	Apr-25	May-25	Jun-25	Jul-25	Aug-25	Sep-25	Oct-25	Nov-25	Dec-25	Total
Oliver 1	[TRADE SECRET DATA BEGINS]												
	MWh Average Cost	[TRADE SECRET DATA BEGINS]											
	Total Cost	\$ 303,064	\$ 302,282	\$ 367,920	\$ 331,795	\$ 272,513	\$ 204,953	\$ 226,171	\$ 240,852	\$ 295,477	\$ 369,080	\$ 375,903	\$ 339,788
Oliver 2	[TRADE SECRET DATA BEGINS]												
	MWh Average Cost	[TRADE SECRET DATA BEGINS]											
	Total Cost	\$ 533,152	\$ 534,463	\$ 581,787	\$ 535,313	\$ 485,367	\$ 375,098	\$ 368,218	\$ 419,549	\$ 515,234	\$ 621,655	\$ 618,503	\$ 598,292
Wing River	[TRADE SECRET DATA BEGINS]												
	MWh Average Cost	[TRADE SECRET DATA BEGINS]											
	Total Cost	\$ 21,746	\$ 21,058	\$ 22,481	\$ 25,832	\$ 18,415	\$ 12,892	\$ 11,993	\$ 14,433	\$ 18,272	\$ 21,441	\$ 25,362	\$ 22,671
Nobles	[TRADE SECRET DATA BEGINS]												
	MWh Average Cost	[TRADE SECRET DATA BEGINS]											
	Total Cost	\$ 1,737,152	\$ 1,694,275	\$ 1,862,360	\$ 2,067,577	\$ 1,486,858	\$ 1,091,761	\$ 971,520	\$ 1,188,019	\$ 1,407,568	\$ 1,664,976	\$ 1,882,934	\$ 1,771,547
Minnkota Power Cooperation Renewable Source	[TRADE SECRET DATA BEGINS]												
	MWh Average Cost	[TRADE SECRET DATA BEGINS]											
	Total Cost	\$ 9,170	\$ 8,890	\$ 8,330	\$ 7,910	\$ 7,420	\$ 6,475	\$ 7,035	\$ 7,420	\$ 7,175	\$ 6,335	\$ 6,615	\$ 8,085
<b>Total Purchase Power Wind \$</b>	<b>\$ 2,604,284</b>	<b>\$ 2,560,968</b>	<b>\$ 2,842,877</b>	<b>\$ 2,968,426</b>	<b>\$ 2,270,574</b>	<b>\$ 1,691,178</b>	<b>\$ 1,584,936</b>	<b>\$ 1,870,274</b>	<b>\$ 2,243,726</b>	<b>\$ 2,683,486</b>	<b>\$ 2,909,317</b>	<b>\$ 2,740,382</b>	<b>\$ 28,970,428</b>

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TRADE SECRET DATA EXCISED**

Purchase Power Diesel													
	Jan-25	Feb-25	Mar-25	Apr-25	May-25	Jun-25	Jul-25	Aug-25	Sep-25	Oct-25	Nov-25	Dec-25	Total
	[TRADE SECRET DATA BEGINS]												
Average Cost	[TRADE SECRET DATA BEGINS]												
Total Cost	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
	[TRADE SECRET DATA ENDS]												
Total Purchase Power Diesel \$	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

Purchase Power Solar													
	Jan-25	Feb-25	Mar-25	Apr-25	May-25	Jun-25	Jul-25	Aug-25	Sep-25	Oct-25	Nov-25	Dec-25	Total
SES 20MW Solar	[TRADE SECRET DATA BEGINS]												
MWh Average Cost	[TRADE SECRET DATA BEGINS]												
Total Cost	\$ 99,884	\$ 144,724	\$ 237,829	\$ 264,663	\$ 299,098	\$ 316,155	\$ 356,554	\$ 311,361	\$ 238,953	\$ 157,483	\$ 103,268	\$ 67,167	\$ 2,597,139
	[TRADE SECRET DATA ENDS]												
Purchase to Serve Municipal Solar Energy	[TRADE SECRET DATA BEGINS]												
MWh Average Cost	[TRADE SECRET DATA BEGINS]												
Total Cost	\$ 6,694	\$ 12,390	\$ 20,435	\$ 21,726	\$ 26,776	\$ 28,890	\$ 25,308	\$ 24,436	\$ 20,264	\$ 13,589	\$ 7,152	\$ 3,934	\$ 211,594
	[TRADE SECRET DATA ENDS]												
Total Purchase Power Solar \$	\$ 106,578	\$ 157,114	\$ 258,264	\$ 286,389	\$ 325,875	\$ 345,046	\$ 381,862	\$ 335,797	\$ 259,217	\$ 171,072	\$ 110,420	\$ 71,101	\$ 2,808,734

Purchase Power Unknown													
	Jan-25	Feb-25	Mar-25	Apr-25	May-25	Jun-25	Jul-25	Aug-25	Sep-25	Oct-25	Nov-25	Dec-25	Total
Market Purchase	[TRADE SECRET DATA BEGINS]												
MWh Average Cost	[TRADE SECRET DATA BEGINS]												
Total Cost	\$ 3,589,049	\$ 2,102,779	\$ 2,277,478	\$ 2,268,755	\$ 2,592,669	\$ 1,580,708	\$ 1,905,192	\$ 2,929,818	\$ 2,704,480	\$ 1,878,158	\$ 1,850,526	\$ 1,393,825	\$ 27,073,437
	[TRADE SECRET DATA ENDS]												
Minnkota Power Cooperation Station Service	[TRADE SECRET DATA BEGINS]												
Average Cost	[TRADE SECRET DATA BEGINS]												
Total Cost	\$ 29,726	\$ 29,726	\$ 29,726	\$ 29,726	\$ 29,726	\$ 29,726	\$ 29,726	\$ 29,726	\$ 29,726	\$ 29,726	\$ 29,726	\$ 29,726	\$ 356,713
	[TRADE SECRET DATA ENDS]												
Purchase to Serve Non-Firm Retail Customer	[TRADE SECRET DATA BEGINS]												
MWh Average Cost	[TRADE SECRET DATA BEGINS]												
Total Cost	\$ 2,824,774	\$ 2,449,432	\$ 1,881,941	\$ 1,685,355	\$ 1,486,876	\$ 2,282,973	\$ 2,869,496	\$ 2,611,401	\$ 2,592,042	\$ 2,382,602	\$ 2,228,372	\$ 3,322,490	\$ 28,617,755
	[TRADE SECRET DATA ENDS]												
Total Purchase Power Unknown \$	\$ 6,443,549	\$ 4,581,937	\$ 4,189,145	\$ 3,983,837	\$ 4,109,271	\$ 3,893,408	\$ 4,804,414	\$ 5,570,945	\$ 5,326,248	\$ 4,290,486	\$ 4,108,623	\$ 4,746,041	\$ 56,047,904

Total Company Purchase Power													
	Jan-25	Feb-25	Mar-25	Apr-25	May-25	Jun-25	Jul-25	Aug-25	Sep-25	Oct-25	Nov-25	Dec-25	Total
Total Company Purchase Power	\$ 21,105,218	\$ 18,102,005	\$ 18,490,736	\$ 18,646,838	\$ 20,967,538	\$ 19,372,664	\$ 21,538,332	\$ 19,543,644	\$ 16,138,573	\$ 16,937,687	\$ 18,411,039	\$ 19,626,004	\$ 228,880,278

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TRADE SECRET DATA EXCISED**

Purchase Power- Coal					
	2025 Forecast	2021 Actuals	2022 Actuals	2023 Actuals	3 Year Average
Square Butte	[TRADE SECRET DATA BEGINS]				
MWh	[TRADE SECRET DATA BEGINS]				
Average Cost	[TRADE SECRET DATA BEGINS]				
Total Cost	\$ 37,998,456	\$ 33,604,104	\$ 30,080,957	\$ 36,731,373	\$ 33,472,145
TRADE SECRET ENDS]					
Total Purchase Power Coal \$	\$ 37,998,456	\$ 33,604,104	\$ 30,080,957	\$ 36,731,373	\$ 33,472,145

Purchase Power Biomass					
	2025 Forecast	2021 Actuals	2022 Actuals	2023 Actuals	3 Year Average
	[TRADE SECRET DATA BEGINS]				
Average Cost	[TRADE SECRET DATA BEGINS]				
Total Cost	\$ -	\$ -	\$ -	\$ -	\$ -
TRADE SECRET ENDS]					
Total Purchase Power Biomass \$	\$ -	\$ -	\$ -	\$ -	\$ -

Purchase Power Hydro					
	2025 Forecast	2021 Actuals	2022 Actuals	2023 Actuals	3 Year Average
MHEB	[TRADE SECRET DATA BEGINS]				
MWh	[TRADE SECRET DATA BEGINS]				
Average Cost	[TRADE SECRET DATA BEGINS]				
Total Cost	\$ 103,054,756	\$ 102,549,433	\$ 115,956,880	\$ 115,566,245	\$ 111,357,519
TRADE SECRET ENDS]					
Total Purchase Power Hydro \$	\$ 103,054,756	\$ 102,549,433	\$ 115,956,880	\$ 115,566,245	\$ 111,357,519

Purchase Power Gas					
	2025 Forecast	2021 Actuals	2022 Actuals	2023 Actuals	3 Year Average
	[TRADE SECRET DATA BEGINS]				
Average Cos	[TRADE SECRET DATA BEGINS]				
Total Cost	\$ -	\$ -	\$ -	\$ -	\$ -
TRADE SECRET ENDS]					
Total Purchase Power Gas \$	\$ -	\$ -	\$ -	\$ -	\$ -

Purchase Power Wind					
	2025 Forecast	2021 Actuals	2022 Actuals	2023 Actuals	3 Year Average
Oliver 1	[TRADE SECRET DATA BEGINS]				
MWh	[TRADE SECRET DATA BEGINS]				
Average Cost	[TRADE SECRET DATA BEGINS]				
Total Cost	\$ 3,629,798	\$ 2,919,748	\$ 3,963,874	\$ 3,640,046	\$ 3,507,889
TRADE SECRET ENDS]					
Oliver 2	[TRADE SECRET DATA BEGINS]				
MWh	[TRADE SECRET DATA BEGINS]				
Average Cost	[TRADE SECRET DATA BEGINS]				
Total Cost	\$ 6,186,629	\$ 5,681,911	\$ 7,010,084	\$ 5,885,090	\$ 6,192,362
TRADE SECRET ENDS]					
Wing River	[TRADE SECRET DATA BEGINS]				
MWh	[TRADE SECRET DATA BEGINS]				
Average Cost	[TRADE SECRET DATA BEGINS]				
Total Cost	\$ 236,596	\$ 72,459	\$ 142,646	\$ 153,354	\$ 122,820
TRADE SECRET ENDS]					
Nobles	[TRADE SECRET DATA BEGINS]				
MWh	[TRADE SECRET DATA BEGINS]				
Average Cost	[TRADE SECRET DATA BEGINS]				
Total Cost	\$ 18,826,546	\$ 19,004,220	\$ 21,419,518	\$ 18,700,105	\$ 19,707,947
TRADE SECRET ENDS]					
Minnkota Power Cooperation Renewable Source	[TRADE SECRET DATA BEGINS]				
MWh	[TRADE SECRET DATA BEGINS]				
Average Cost	[TRADE SECRET DATA BEGINS]				
Total Cost	\$ 90,860	\$ -	\$ -	\$ -	\$ -
TRADE SECRET ENDS]					
Total Purchase Power Wind \$	\$ 28,970,428	\$ 27,678,338	\$ 32,536,121	\$ 28,378,595	\$ 29,531,018

**PUBLIC DOCUMENT  
TRADE SECRET DATA EXCISED**

Purchase Power Diesel					
	2025 Forecast	2021 Actuals	2022 Actuals	2023 Actuals	3 Year Average
	[TRADE SECRET DATA BEGINS]				
Average Cos	[TRADE SECRET ENDS]				
Total Cost	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Total Purchase Power Diesel \$</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>

Purchase Power Solar					
	2025 Forecast	2021 Actuals	2022 Actuals	2023 Actuals	3 Year Average
	[TRADE SECRET DATA BEGINS]				
SES 20MW Solar MWh	[TRADE SECRET ENDS]				
Average Cost	[TRADE SECRET ENDS]				
Total Cost	\$ 2,597,139	\$ -	\$ -	\$ 1,351,439	\$ 450,480
	[TRADE SECRET DATA BEGINS]				
Purchase to Serve Municipal Solar Energy MWh	[TRADE SECRET ENDS]				
Average Cost	[TRADE SECRET ENDS]				
Total Cost	\$ 211,594	\$ -	\$ 137,267	\$ 222,059	\$ 119,776
	[TRADE SECRET DATA BEGINS]				
Solar Subscription Cancellations MWh	[TRADE SECRET ENDS]				
Average Cos	[TRADE SECRET ENDS]				
Total Cost	\$ -	\$ 1,367	\$ 83	\$ 2,614	\$ 1,354
<b>Total Purchase Power Solar \$</b>	<b>\$ 2,808,734</b>	<b>\$ 1,367</b>	<b>\$ 137,350</b>	<b>\$ 1,576,111</b>	<b>\$ 571,609</b>

Purchase Power Unknown					
	2025 Forecast	2021 Actuals	2022 Actuals	2023 Actuals	3 Year Average
	[TRADE SECRET DATA BEGINS]				
Market Purchase MWh	[TRADE SECRET ENDS]				
Average Cost	[TRADE SECRET ENDS]				
Total Cost	\$ 27,073,437	\$ 94,942,309	\$ 58,340,567	\$ 46,741,456	\$ 66,674,777
	[TRADE SECRET DATA BEGINS]				
Minnkota Power Cooperation Station Service MWh	[TRADE SECRET ENDS]				
Average Cost	[TRADE SECRET ENDS]				
Total Cost	\$ 356,713	\$ 507,516	\$ 553,127	\$ 402,677	\$ 487,773
	[TRADE SECRET DATA BEGINS]				
Purchase to Serve Non-Firm Retail Customer MWh	[TRADE SECRET ENDS]				
Average Cost	[TRADE SECRET ENDS]				
Total Cost	\$ 28,617,755	\$ -	\$ -	\$ -	\$ -
	[TRADE SECRET DATA BEGINS]				
Minnkota Power MWh	[TRADE SECRET ENDS]				
Average Cost	[TRADE SECRET ENDS]				
Total Cost	\$ -	\$ 544,800		\$ 8,274,960	\$ 4,409,880
	[TRADE SECRET DATA BEGINS]				

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TRADE SECRET DATA EXCISED**

IMO (Ontario Market Operator)	MWh					
	Average Cost					
	Total Cost	\$ -	\$ 36,407	\$ 134,144	\$ 11,282	\$ 60,611
[TRADE SECRET DATA BEGINS]						
AEP Energy Partners	MWh					
	Average Cost					
	Total Cost	\$ -	\$ 5,579,300	\$ 200,700	\$ 5,414,700	\$ 3,731,567
[TRADE SECRET DATA BEGINS]						
Shell Energy North America	MWh					
	Average Cost					
	Total Cost	\$ -	\$ 7,632,060	\$ 13,701,400	\$ 3,630,960	\$ 8,321,473
[TRADE SECRET DATA BEGINS]						
NextEra Energy	MWh					
	Average Cost					
	Total Cost	\$ -	\$ 23,297,399	\$ 2,077,260	\$ 3,839,340	\$ 9,738,000
[TRADE SECRET DATA BEGINS]						
Other Purchases	MWh					
	Average Cost					
	Total Cost	\$ -	\$ 1,359,714	\$ 7,384,043	\$ 1,773,873	\$ 3,505,877
[TRADE SECRET DATA BEGINS]						
MacQuarie Energy	MWh					
	Average Cost					
	Total Cost	\$ -	\$ 4,994,940	\$ 1,765,300	\$ 1,411,500	\$ 2,723,913
[TRADE SECRET DATA BEGINS]						
The Energy Authority	MWh					
	Average Cos					
	Total Cost	\$ -	\$ 52,800	\$ -	\$ 1,397,220	\$ 483,340
[TRADE SECRET DATA BEGINS]						
Transalta Energy Marketing	MWh					
	Average Cos					
	Total Cost	\$ -	\$ -	\$ -	\$ -	\$ -
[TRADE SECRET DATA BEGINS]						
Total Purchase Power Unknown \$		\$ 56,047,904	\$ 138,947,245	\$ 84,156,541	\$ 72,897,968	\$ 100,137,211

Total Company Purchase Power					
	2025 Forecast	2021 Actuals	2022 Actuals	2023 Actuals	3 Year Average
Total Company Purchase Power	\$ 228,880,278	\$ 302,780,486	\$ 262,867,849	\$ 255,150,291	\$ 275,069,502



**PUBLIC DOCUMENT  
TRADE SECRET DATA EXCISED**

Inter-System Sales- Customer Sales													
	Jan-25	Feb-25	Mar-25	Apr-25	May-25	Jun-25	Jul-25	Aug-25	Sep-25	Oct-25	Nov-25	Dec-25	Total
TRADE SECRET DATA BEGINS													
Incremental Product Service and RFPS	MWh												
Average Fuel Cost	TRADE SECRET DATA BEGINS												
Total Fuel Cost	\$ 308,199	\$ 256,245	\$ 134,349	\$ 132,149	\$ 118,317	\$ 102,051	\$ 108,605	\$ 130,010	\$ 179,969	\$ 159,010	\$ 312,382	\$ 264,070	\$ 2,205,355
TRADE SECRET DATA ENDS]													
Economy and Non Firm Energy													
Average Fuel Cost	TRADE SECRET DATA BEGINS												
Total Fuel Cost	\$ 3,079,843	\$ 2,780,011	\$ 2,094,664	\$ 1,940,431	\$ 1,743,541	\$ 2,516,451	\$ 3,161,115	\$ 2,965,472	\$ 2,991,592	\$ 2,639,556	\$ 2,464,782	\$ 3,594,790	\$ 31,972,249
TRADE SECRET DATA ENDS]													
Municipal Incremental													
Average Fuel Cost	TRADE SECRET DATA BEGINS												
Total Fuel Cost	\$ 739,077	\$ 621,322	\$ 374,816	\$ 276,351	\$ 223,341	\$ 295,546	\$ 394,625	\$ 368,261	\$ 273,681	\$ 256,787	\$ 371,914	\$ 575,361	\$ 4,771,083
TRADE SECRET DATA ENDS]													
Municipal Solar Energy													
Average Fuel Cost	TRADE SECRET DATA BEGINS												
Total Fuel Cost	\$ 6,694	\$ 12,390	\$ 20,435	\$ 21,726	\$ 26,776	\$ 28,890	\$ 25,308	\$ 24,436	\$ 20,264	\$ 13,589	\$ 7,152	\$ 3,934	\$ 211,594
TRADE SECRET DATA ENDS]													
Total Inter-System Sales- Customer (MWhs)	84,569	85,815	84,529	78,484	66,996	88,114	88,433	89,780	88,447	82,469	81,720	91,884	1,011,240
Total Inter-System Sales- Customer (Dollars)	\$ 4,133,814	\$ 3,669,967	\$ 2,624,263	\$ 2,370,658	\$ 2,111,975	\$ 2,942,938	\$ 3,689,654	\$ 3,488,179	\$ 3,465,507	\$ 3,068,942	\$ 3,156,229	\$ 4,438,155	\$ 39,160,281
Inter-System Sales- Market Sales													
	Jan-25	Feb-25	Mar-25	Apr-25	May-25	Jun-25	Jul-25	Aug-25	Sep-25	Oct-25	Nov-25	Dec-25	Total
TRADE SECRET DATA BEGINS													
Oconto	MWh												
Average Fuel Cost	TRADE SECRET DATA BEGINS												
Total Fuel Cost	\$ 272,941	\$ 240,058	\$ 231,235	\$ 195,166	\$ 182,781	\$ 203,328	\$ 244,968	\$ 230,514	\$ 194,672	\$ 207,285	\$ 237,868	\$ 278,443	\$ 2,719,260
TRADE SECRET DATA ENDS]													
Hibbing Public Utilities													
Average Fuel Cost	TRADE SECRET DATA BEGINS												
Total Fuel Cost	\$ 103,256	\$ 94,991	\$ 106,527	\$ 104,779	\$ 106,475	\$ 106,029	\$ 108,851	\$ 107,953	\$ 105,038	\$ 109,984	\$ 104,997	\$ 107,299	\$ 1,266,179
TRADE SECRET DATA ENDS]													
Minnkota Power Cooperation Renewable Source													
Average Fuel Cost	TRADE SECRET DATA BEGINS												
Total Fuel Cost	\$ 9,170	\$ 8,890	\$ 8,330	\$ 7,910	\$ 7,420	\$ 6,475	\$ 7,035	\$ 7,420	\$ 7,175	\$ 6,335	\$ 6,615	\$ 8,085	\$ 90,860
TRADE SECRET DATA ENDS]													
Asset Based Sales (Non MISO)													
Average Fuel Cost	TRADE SECRET DATA BEGINS												
Total Fuel Cost	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
TRADE SECRET DATA ENDS]													
Liquidated Sales (Non MISO)													
Average Fuel Cost	TRADE SECRET DATA BEGINS												
Total Fuel Cost	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
TRADE SECRET DATA ENDS]													
MISO Market Sales													
Average Fuel Cost	TRADE SECRET DATA BEGINS												
Total Fuel Cost	\$ 2,759,447	\$ 1,755,825	\$ 2,135,800	\$ 2,600,203	\$ 2,324,979	\$ 3,431,801	\$ 3,705,451	\$ 2,950,826	\$ 2,119,311	\$ 3,776,935	\$ 3,425,078	\$ 2,686,257	\$ 33,671,913
TRADE SECRET DATA ENDS]													
Minnkota Power Liquidation													
Average Fuel Cost	TRADE SECRET DATA BEGINS												
Total Fuel Cost	\$ 3,403,081	\$ 3,123,799	\$ 2,955,245	\$ 3,303,617	\$ 3,425,792	\$ 2,870,102	\$ 3,401,439	\$ 3,431,720	\$ 474,229	\$ 1,542,558	\$ 3,239,042	\$ 3,487,312	\$ 34,657,936
TRADE SECRET DATA ENDS]													
Total Inter-System Sales- Market (MWhs)	256,679	201,424	197,447	222,771	222,487	232,764	256,055	239,700	92,330	211,893	259,309	247,549	2,640,408
Total Inter-System Sales- Market (Dollars)	\$ 6,547,894	\$ 5,223,563	\$ 5,437,138	\$ 6,211,675	\$ 6,047,446	\$ 6,617,735	\$ 7,467,744	\$ 6,728,434	\$ 2,900,425	\$ 5,643,098	\$ 7,013,600	\$ 6,567,396	\$ 72,406,148
Inter-System Sales- Station Service													
	Jan-25	Feb-25	Mar-25	Apr-25	May-25	Jun-25	Jul-25	Aug-25	Sep-25	Oct-25	Nov-25	Dec-25	Total
TRADE SECRET DATA BEGINS													
Oliver 1	MWh												
Average Fuel Cost	TRADE SECRET DATA BEGINS												
Total Fuel Cost	\$ 880	\$ 880	\$ 880	\$ 880	\$ 880	\$ 880	\$ 880	\$ 880	\$ 880	\$ 880	\$ 880	\$ 880	\$ 10,558
TRADE SECRET DATA ENDS]													
Oliver 2													
Average Fuel Cost	TRADE SECRET DATA BEGINS												

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TRADE SECRET DATA EXCISED**

													TRADE SECRET DATA ENDS													
Total Fuel Cost	\$	868	\$	868	\$	868	\$	868	\$	868	\$	868	\$	868	\$	868	\$	868	\$	10,411						
													TRADE SECRET DATA ENDS													
WPP1	TRADE SECRET DATA BEGINS																									
	MWh																									
	Average Fuel Cost																									
													TRADE SECRET DATA ENDS													
Total Fuel Cost	\$	2,703	\$	2,703	\$	2,703	\$	14,133	\$	51,280	\$	2,703	\$	2,703	\$	2,703	\$	22,705	\$	2,703	\$	2,703	\$	2,703	\$	112,445
Total Inter-System Sales- Station Service (MWhs)		112		112		112		504		1,775		112		112		112		797		112		112		112		4,085
Total Inter-System Sales- Station Service (Dollars)	\$	4,451	\$	4,451	\$	4,451	\$	15,880	\$	53,027	\$	4,451	\$	4,451	\$	4,451	\$	24,453	\$	4,451	\$	4,451	\$	4,451	\$	133,415

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TRADE SECRET DATA EXCISED**

Inter-System Sales- MISO Costs														
	Jan-25	Feb-25	Mar-25	Apr-25	May-25	Jun-25	Jul-25	Aug-25	Sep-25	Oct-25	Nov-25	Dec-25	Total	
MISO Recovered thru Market Sales	Total Cost	\$ 732,515	\$ 465,174	\$ 338,429	\$ 391,756	\$ 240,108	\$ 256,204	\$ 343,542	\$ 418,259	\$ 183,914	\$ 408,194	\$ 474,790	\$ 705,054	\$ 4,957,940
Total Inter-System Sales- MISO Costs (Dollars)		\$ 732,515	\$ 465,174	\$ 338,429	\$ 391,756	\$ 240,108	\$ 256,204	\$ 343,542	\$ 418,259	\$ 183,914	\$ 408,194	\$ 474,790	\$ 705,054	\$ 4,957,940
Inter-System Sales- Sales due to Retail Loss of Load														
	Jan-25	Feb-25	Mar-25	Apr-25	May-25	Jun-25	Jul-25	Aug-25	Sep-25	Oct-25	Nov-25	Dec-25	Total	
TRADE SECRET DATA BEGINS														
Sales due to Retail Loss of Load	Average Fuel Cost	TRADE SECRET DATA ENDS]												
Total Fuel Cost		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
MISO Recovered thru Sales due to Retail Loss of Load	Total Cost	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Liquidation for Sales due to Retail Loss of Load	Total Cost	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total Inter-System Sales- Sales due to Retail Loss of Load (MWhs)		0	0	0	0	0	0	0	0	0	0	0	0	0
Total Inter-System Sales- Sales due to Retail Loss of Load (Dollars)		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Inter-System Sales- Margins														
	Jan-25	Feb-25	Mar-25	Apr-25	May-25	Jun-25	Jul-25	Aug-25	Sep-25	Oct-25	Nov-25	Dec-25	Total	
Asset Based Sales Margins	Total Margins	\$ 1,904,735	\$ 1,311,277	\$ 823,988	\$ 633,045	\$ 736,730	\$ 1,943,641	\$ 2,475,922	\$ 1,065,652	\$ 872,504	\$ 990,758	\$ 1,472,432	\$ 1,843,021	\$ 16,073,704
Total Inter-System Sales- MISO Costs (Dollars)		\$ 1,904,735	\$ 1,311,277	\$ 823,988	\$ 633,045	\$ 736,730	\$ 1,943,641	\$ 2,475,922	\$ 1,065,652	\$ 872,504	\$ 990,758	\$ 1,472,432	\$ 1,843,021	\$ 16,073,704
	Jan-25	Feb-25	Mar-25	Apr-25	May-25	Jun-25	Jul-25	Aug-25	Sep-25	Oct-25	Nov-25	Dec-25	Total	
Total Company Inter System Sales MWhs		341,360	287,351	282,088	301,759	291,258	320,990	344,600	329,592	181,574	294,475	341,141	339,545	3,655,733
Total Company Inter System Sales Dollars		\$ 13,323,409	\$ 10,674,432	\$ 9,228,269	\$ 9,623,015	\$ 9,189,287	\$ 11,764,968	\$ 13,981,312	\$ 11,704,974	\$ 7,446,802	\$ 10,115,442	\$ 12,121,501	\$ 13,558,077	\$ 132,731,488

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Inter-System Sales- Customer Sales						
	2025 Forecast	2021 Actuals	2022 Actuals	2023 Actuals	3 Year Average	
[TRADE SECRET DATA BEGINS]						
Incremental Production Service (IPS) and Replacement Firm Power Service (RFPS)	MWh					
Average Fuel Cost						
Total Fuel Cost	\$ 2,205,355	\$ 3,719,413	\$ 7,107,849	\$ 2,263,399	\$ 4,363,553	
[TRADE SECRET DATA BEGINS]						
Economy and Non Firm Energy	MWh					
Average Fuel Cost						
Total Fuel Cost	\$ 31,972,249	\$ 30,548,125	\$ 25,650,272	\$ 18,769,510	\$ 24,989,302	
[TRADE SECRET DATA BEGINS]						
Excessive Energy	MWh					
Average Fuel Cost						
Total Fuel Cost	\$ -	\$ 3,432,059	\$ 212,921	\$ 2	\$ 1,214,994	
[TRADE SECRET DATA BEGINS]						
Incremental and Price Recall	MWh					
Average Fuel Cost						
Total Fuel Cost	\$ -	\$ 506,404	\$ 321,792	\$ 42,245	\$ 290,147	
[TRADE SECRET DATA BEGINS]						
Municipal Incremental	MWh					
Average Fuel Cost						
Total Fuel Cost	\$ 4,771,083	\$ -	\$ 6,383,071	\$ 4,993,058	\$ 3,792,043	
[TRADE SECRET DATA BEGINS]						
Municipal Solar Energy	MWh					
Average Fuel Cost						
Total Fuel Cost	\$ 211,594	\$ -	\$ 137,267	\$ 222,059	\$ 119,776	
[TRADE SECRET DATA BEGINS]						
Total Inter-System Sales- Customer (MWhs)		1,011,240	1,067,722	820,924	809,093	899,246
Total Inter-System Sales- Customer (Dollars)		\$ 39,160,281	\$ 38,206,001	\$ 39,813,172	\$ 26,290,274	\$ 34,769,815
Inter-System Sales- Market Sales						
	2025 Forecast	2021 Actuals	2022 Actuals	2023 Actuals	3 Year Average	
[TRADE SECRET DATA BEGINS]						
Oconto	MWh					
Average Fuel Cost						
Total Fuel Cost	\$ 2,719,260	\$ 2,615,447	\$ 3,232,965	\$ 3,200,446	\$ 3,016,286	
[TRADE SECRET DATA BEGINS]						
Hibbing Public Utilities	MWh					
Average Fuel Cost						
Total Fuel Cost	\$ 1,266,179	\$ -	\$ 417,275	\$ 1,212,215	\$ 543,164	
[TRADE SECRET DATA BEGINS]						
Renewable Source Formally known as Green Pricing	Average Fuel Cost					
Total Fuel Cost	\$ 90,860	\$ 79,375	\$ 114,300	\$ 42,000	\$ 78,558	
[TRADE SECRET DATA BEGINS]						
Asset Based Sales (Non MISO)	MWh					
Average Fuel Cost						
Total Fuel Cost	\$ -	\$ 1,003,125	\$ 4,528,812	\$ 222,078	\$ 1,918,005	
[TRADE SECRET DATA BEGINS]						
Liquidated Sales (Non MISO)	MWh					
Average Fuel Cost						
Total Fuel Cost	\$ -	\$ 2,713,722	\$ 3,644,626	\$ 4,005,180	\$ 3,454,510	
[TRADE SECRET DATA BEGINS]						
MISO Market Sales	MWh					
Average Fuel Cost						
Total Fuel Cost	\$ 33,671,913	\$ 29,781,641	\$ 63,713,147	\$ 43,823,378	\$ 45,772,722	
[TRADE SECRET DATA BEGINS]						
Minnkota Power Liquidation	MWh					
Average Fuel Cost						
Total Fuel Cost	\$ 34,657,936	\$ 18,833,084	\$ 19,504,961	\$ 27,045,082	\$ 21,794,376	
[TRADE SECRET DATA BEGINS]						
MaQuarie Energy	MWh					
Average Cost						
Total Cost	\$ -	\$ 4,276,660	\$ -	\$ -	\$ 1,425,553	
[TRADE SECRET DATA BEGINS]						

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AEP Energy						
	Average Cost	TRADE SECRET ENDS]				
	Total Cost	\$ -	\$ -	\$ -	\$ -	\$ -
NextEra Energy		[TRADE SECRET DATA BEGINS				
	MWh					
	Average Cost	TRADE SECRET ENDS]				
	Total Cost	\$ -	\$ 14,624,884	\$ -	\$ -	\$ 4,874,961
Shell Energy		[TRADE SECRET DATA BEGINS				
	MWh					
	Average Cost	TRADE SECRET ENDS]				
	Total Cost	\$ -	\$ 6,586,411	\$ -	\$ -	\$ 2,195,470
Total Inter-System Sales- Market (MWhs)		2,640,408	3,412,055	3,140,614	2,812,719	3,121,796
Total Inter-System Sales- Market (Dollars)		\$ 72,406,148	\$ 80,514,350	\$ 95,156,087	\$ 79,550,379	\$ 85,073,605

Inter-System Sales- Station Service						
		2025 Forecast	2021 Actuals	2022 Actuals	2023 Actuals	3 Year Average
[TRADE SECRET DATA BEGINS						
Oliver 1	MWh					
	Average Fuel Cost	TRADE SECRET ENDS]				
	Total Fuel Cost	\$ 10,558	\$ 9,146	\$ 16,981	\$ 10,558	\$ 12,229
[TRADE SECRET DATA BEGINS						
Oliver 2	MWh					
	Average Fuel Cost	TRADE SECRET ENDS]				
	Total Fuel Cost	\$ 10,411	\$ 8,063	\$ 14,442	\$ 10,411	\$ 10,972
[TRADE SECRET DATA BEGINS						
WPPI	MWh					
	Average Fuel Cost	TRADE SECRET ENDS]				
	Total Fuel Cost	\$ 112,445	\$ 200,234	\$ 408,003	\$ 260,175	\$ 289,471
[TRADE SECRET DATA BEGINS						
Wing River	MWh					
	Average Fuel Cost	TRADE SECRET ENDS]				
	Total Fuel Cost	\$ -	\$ 83	\$ 357	\$ -	\$ 147
[TRADE SECRET DATA BEGINS						
Total Inter-System Sales- Station Service (MWhs)		4,085	6,126	8,390	7,063	7,193
Total Inter-System Sales- Station Service (Dollars)		\$ 133,415	\$ 217,526	\$ 439,783	\$ 281,144	\$ 312,818

Inter-System Sales- MISO Costs						
		2025 Forecast	2021 Actuals	2022 Actuals	2023 Actuals	3 Year Average
MISO Recovered thru Market Sales	Total Cost	\$ 4,957,940	\$ 8,513,787	\$ 6,881,946	\$ 2,300,264	\$ 5,898,666
Total Inter-System Sales- MISO Costs (Dollars)		\$ 4,957,940	\$ 8,513,787	\$ 6,881,946	\$ 2,300,264	\$ 5,898,666

Inter-System Sales- Sales due to Retail Loss of Load						
		2025 Forecast	2021 Actuals	2022 Actuals	2023 Actuals	3 Year Average
[TRADE SECRET DATA BEGINS						
Sales due to Retail Loss of Load	MWh					
	Average Fuel Cost	TRADE SECRET ENDS]				
	Total Fuel Cost	\$ -	\$ 22,656,667	\$ -	\$ -	\$ 7,552,222
MISO Recovered thru Sales due to Retail Loss of Load	Total Cost	\$ -	\$ 4,406,794	\$ -	\$ -	\$ 1,468,931
Liquidation for Sales due to Retail Loss of Load	Total Cost	\$ -	\$ 1,004,489	\$ -	\$ -	\$ 334,830
Total Inter-System Sales- Sales due to Retail Loss of Load (MWhs)		0	869,160	0	0	289,720
Total Inter-System Sales- Sales due to Retail Loss of Load (Dollars)		\$ -	\$ 28,067,950	\$ -	\$ -	\$ 9,355,983

Inter-System Sales- Margins						
		2025 Forecast	2021 Actuals	2022 Actuals	2023 Actuals	3 Year Average
Asset Based Sales Margins	Total Margins	\$ 16,073,704	\$ 5,260,590	\$ 25,458,189	\$ 20,658,377	\$ 17,125,719
Total Inter-System Sales- MISO Costs (Dollars)		\$ 16,073,704	\$ 5,260,590	\$ 25,458,189	\$ 20,658,377	\$ 17,125,719

Total Inter-System Sales						
		2025 Forecast	2021 Actuals	2022 Actuals	2023 Actuals	3 Year Average
Total Company Inter System Sales MWhs		3,655,733	5,355,063	3,969,927	3,628,874	4,317,955
Total Company Inter System Sales Dollars		\$ 132,731,488	\$ 160,780,204	\$ 167,749,176	\$ 129,080,438	\$ 152,536,606

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**SOLAR ENERGY ADJUSTMENT**

Docket No. E015/M-15-773

	January 2025	February 2025	March 2025	April 2025	May 2025	June 2025	July 2025	August 2025	September 2025	October 2025	November 2025	December 2025
Total Monthly Fuel Cost	26,715,480	22,792,241	21,956,168	20,135,170	20,627,861	19,411,486	22,766,045	23,890,558	21,398,610	20,756,647	21,183,658	25,948,410
Less: Costs related to Solar	99,884	144,724	237,829	264,663	299,098	316,155	356,554	311,361	238,953	157,483	103,268	67,167
Total Non-Solar FAC Costs	26,615,596	22,647,517	21,718,339	19,870,507	20,328,762	19,095,331	22,409,491	23,579,197	21,159,657	20,599,164	21,080,390	25,881,243
Current 2-Month Total Fuel Cost	51,174,308	49,263,113	44,365,856	41,588,846	40,199,269	39,424,093	41,504,822	45,988,688	44,738,854	41,758,821	41,679,554	46,961,633
Total Monthly KWH Sales	820,138,000	735,809,000	778,382,000	715,291,000	737,683,000	713,914,000	756,049,000	751,454,000	726,385,000	740,053,000	764,511,000	815,337,000
Less: Solar Generation and Purchases	2,422,811	3,374,791	5,003,249	5,727,253	6,470,314	6,756,185	7,542,654	6,674,511	5,170,030	3,854,421	2,375,013	1,734,552
Total Non-Solar FAC KWH Sales	817,715,189	732,434,209	773,378,751	709,563,747	731,212,686	707,157,815	748,506,346	744,779,489	721,214,970	736,198,579	762,135,987	813,602,448
Current 2-Month Total KWH Sales	1,596,762,264	1,550,149,398	1,505,812,960	1,482,942,498	1,440,776,433	1,438,370,501	1,455,664,161	1,493,285,835	1,465,994,459	1,457,413,549	1,498,334,567	1,575,738,435
Fuel Cost - cents/kWh	3.205	3.178	2.946	2.804	2.790	2.741	2.851	3.080	3.052	2.865	2.782	2.980
TOGA Percentage	77.85%	85.43%	66.96%	74.90%	94.74%	82.16%	86.02%	94.05%	81.54%	84.95%	81.32%	74.64%
Fuel Cost Credit to the SEA - cents/kWh	2.495	2.715	1.973	2.100	2.643	2.252	2.452	2.897	2.489	2.434	2.262	2.224
BILLING MONTH:	March 2025	April 2025	May 2025	June 2025	July 2025	August 2025	September 2025	October 2025	November 2025	December 2025	January 2026	February 2026

	January 2025	February 2025	March 2025	April 2025	May 2025	June 2025	July 2025	August 2025	September 2025	October 2025	November 2025	December 2025
TOGA Percentage	77.85%	85.43%	66.96%	74.90%	94.74%	82.16%	86.02%	94.05%	81.54%	84.95%	81.32%	74.64%
Less: 100 Percent	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
Total TOGA Percentage to the FAC	-22.15%	-14.57%	-33.04%	-25.10%	-5.26%	-17.84%	-13.98%	-5.95%	-18.46%	-15.05%	-18.68%	-25.36%
TOGA to the FAC (Dollars)	\$ (17,197.19)	\$ (15,628.54)	\$ (48,694.58)	\$ (40,308.92)	\$ (9,494.72)	\$ (33,038.89)	\$ (30,062.53)	\$ (12,226.32)	\$ (29,130.26)	\$ (16,617.48)	\$ (12,342.98)	\$ (13,106.58)

	January 2025	February 2025	March 2025	April 2025	May 2025	June 2025	July 2025	August 2025	September 2025	October 2025	November 2025	December 2025
Costs Related to Solar	\$99,883.68	\$144,724.11	\$237,829.31	\$264,663.06	\$299,098.38	\$316,155.31	\$356,553.75	\$311,360.97	\$238,952.55	\$157,483.30	\$103,267.95	\$67,166.95
Less: Credit from FAC / TOGA	\$60,453.91	\$91,622.31	\$98,701.14	\$120,283.25	\$171,027.05	\$152,148.14	\$184,978.53	\$193,348.63	\$128,659.05	\$93,811.67	\$53,729.87	\$38,583.08
Net Costs Related to Solar	\$ 39,429.77	\$ 53,101.79	\$ 139,128.17	\$ 144,379.81	\$ 128,071.32	\$ 164,007.17	\$ 171,575.22	\$ 118,012.34	\$ 110,293.50	\$ 63,671.62	\$ 49,538.08	\$ 28,583.87
Current 2-Month Net Costs Related to Solar	\$ 54,680.76	\$ 92,531.56	\$ 192,229.96	\$ 283,507.98	\$ 272,451.14	\$ 292,078.49	\$ 335,582.39	\$ 289,587.56	\$ 228,305.84	\$ 173,965.12	\$ 113,209.70	\$ 78,121.95
Total Monthly kWh Sales	820,400,000	736,063,000	778,620,000	715,517,000	737,895,000	714,099,000	756,250,000	751,666,000	726,590,000	740,234,000	764,700,000	815,568,000
Less: Retail SES Exempt	407,588,550	367,267,550	402,333,550	377,503,550	400,940,550	386,742,550	401,554,550	397,256,550	385,024,550	399,293,550	407,495,550	408,722,550
Less: Municipal SES Exempt	127,112,000	110,365,000	116,661,000	110,929,000	113,877,000	107,716,000	109,512,000	111,537,000	112,708,000	116,146,000	118,338,000	123,981,000
Total Non-Exempt kWh Sales	285,699,450	258,430,450	259,625,450	227,084,450	223,077,450	219,640,450	245,183,450	242,872,450	228,857,450	224,794,450	238,866,450	282,864,450
Current 2-Month Total Non-Exempt kWh Sal	569,830,623	544,129,900	518,055,900	486,709,900	450,161,900	442,717,900	464,823,900	488,055,900	471,729,900	453,651,900	463,660,900	521,730,900
SEA Adjustment - Dollars per KWH	\$0.00010	\$0.00017	\$0.00037	\$0.00058	\$0.00061	\$0.00066	\$0.00072	\$0.00059	\$0.00048	\$0.00038	\$0.00024	\$0.00015
SEA Adjustment - cents per KWH	0.00960	0.01701	0.03711	0.05825	0.06052	0.06597	0.07220	0.05933	0.04840	0.03835	0.02442	0.01497
BILLING MONTH:	March 2025	April 2025	May 2025	June 2025	July 2025	August 2025	September 2025	October 2025	November 2025	December 2025	January 2026	February 2026

**Fuel & Energy Source Procurement and  
Energy Dispatching Policies**  
Minn. Rule 7825.2800

## I. Fuel Source Procurement Policies

### Fuel Cost Minimization Activities

Minnesota Power's fuel procurement practices are aimed at strategically minimizing our customers' current energy costs while complying with current environmental regulations and, simultaneously, taking action to assure cost-effective compliance with future environmental requirements. Attaining these objectives requires that purchases and sales of energy, applicable coal and rail contract provisions, current and projected emissions, mine plans of our suppliers, requirements of customers, fuel delivery schedules, fuel inventory, fuel and rail costs, etc., be continuously evaluated. Balancing these parameters requires superimposing long- and short-term planning objectives on near-term operations.

In addition, Minnesota Power uses a multi-discipline fuels procurement and strategy team to achieve fuel cost minimization and environmental compliance objectives. The team meets regularly to coordinate all activities related to fuel procurement. Objectives include:

- Implement strategies for short- and long-term fuel procurement which provide a high-quality, flexible, and reliable fuel supply to Minnesota Power facilities to achieve the lowest attainable electric rates.
- Optimize fuel costs and quality through developing, implementing and managing the short-term strategy for fuel scheduling and deliveries within operating and contract parameters.
- Environmental compliance planning efforts focus on the formulation, implementation and minimization of short- and long-term corporate strategies for fuel quality issues and the impact of fuel on plant performance and compliance with existing and emerging environmental regulations.



## **Energy Source Procurement and Dispatching Policies**

### Short Term Activities

The Midcontinent Independent System Operator (“MISO”) is a fully integrated regional transmission organization that operates a Day-Ahead Energy and Ancillary Services Market, a Real-Time Energy and Ancillary Services Market, a Financial Transmission Rights (“FTR”) Market, and a Planning Resource Auction for capacity.

Minnesota Power’s generation resources, load, and transmission assets are located within the MISO footprint and are part of the MISO market. The MISO markets are used to balance generation with load and to hedge congestion between generation and load. There are a variety of tools that Minnesota Power uses to help with analysis and participation in the MISO market. Minnesota Power offers to sell energy and ancillary services sourced from its supply resources and bids to buy energy to serve load in the MISO market each day. MISO procures enough market ancillary service products to meet the needs of the entire footprint and the Company is allocated its load ratio share of the costs to procure the needed ancillary services. If market clearing prices are above Minnesota Power’s generator offer prices, Minnesota Power generation will be selected to serve load. If market prices are below the generator offers, other lower cost resources will be selected to serve Minnesota Power’s load, and the Company’s generation will be backed down. The Company also looks to buy energy in the short term bilateral market when there is an energy need and purchases can be made below expected MISO day-ahead costs.

### Medium Term Activities

Minnesota Power uses a production cost model to determine its forward monthly energy position. Model inputs include forecasted customer loads, generator capabilities, contract energy purchases and sales, forward energy prices, planned generator outages, and forced and maintenance outage rates. Inputs are updated and the model is run periodically to determine Minnesota Power’s forward energy position.

Planned generator outages are usually known about a year or more in advance. When a significant energy deficit is identified, the Company monitors the wholesale market for

least cost supply opportunities and enters into bilateral purchases to maintain volumetric position limits as outlined in Minnesota Power's Power Marketing Risk Management Policy. If forward energy prices drop below forecasted spot market prices the entire short position could be covered with a bilateral purchase prior to the start of the outage. If lower cost energy is available in the areas that border the MISO north region, Minnesota Power may choose to use bilateral purchases from those border areas to cover a generator outage.

## II. Summary of Fuel Contracts

### Coal Contracts

Kennecott Coal Sales LLC, an Oregon LLC (currently known as Navajo Transitional Energy Company, and formerly known as both Cloud Peak Energy and Rio Tinto Energy), Spring Creek Mine, Decker, Montana.

- Master Coal Purchase Agreement signed on [TRADE SECRET DATA BEGINS [REDACTED] TRADE SECRET DATA ENDS] provides general terms and definitions governing purchases and sales of coal.
- An agreement signed on [TRADE SECRET DATA BEGINS [REDACTED] TRADE SECRET DATA ENDS] also provides for purchases of a minimum of [TRADE SECRET DATA BEGINS [REDACTED] TRADE SECRET DATA ENDS] for the period of [TRADE SECRET DATA BEGINS [REDACTED] TRADE SECRET DATA ENDS]

Peabody COALSALES, LLC, North Antelope Rochelle Mine, Gillette, Wyoming

- Master Coal Purchase Agreement signed on [TRADE SECRET DATA BEGINS [REDACTED] TRADE SECRET DATA ENDS] provides general terms and definitions governing purchases and sales of coal.
- An agreement signed on [TRADE SECRET DATA BEGINS [REDACTED] TRADE SECRET DATA ENDS] also provides for purchases of a minimum of [TRADE SECRET DATA BEGINS [REDACTED] TRADE SECRET DATA ENDS] and maximum of [TRADE SECRET DATA BEGINS [REDACTED]

[REDACTED] TRADE SECRET DATA ENDS] tons of coal for the period of [TRADE SECRET DATA BEGINS [REDACTED] [REDACTED] TRADE SECRET DATA ENDS]

### **Biomass Contracts**

Currently Minnesota Power purchases wood fuel under purchase orders with 10 separate suppliers for use at the Hibbard Renewable Energy Center with varying expiration dates. These type of purchases are expected to continue in 2025.

### **Rail Contracts**

Burlington Northern Santa Fe (currently known as BNSF Railway)

- An agreement signed on [TRADE SECRET DATA BEGINS [REDACTED] TRADE SECRET DATA ENDS] provides for the transportation of coal from [TRADE SECRET DATA BEGINS [REDACTED] TRADE SECRET DATA ENDS] for a minimum of [TRADE SECRET DATA BEGINS [REDACTED] TRADE SECRET DATA ENDS] tons per year and a maximum of [TRADE SECRET DATA BEGINS [REDACTED] TRADE SECRET DATA ENDS] tons per year.

### **Supplemental Fuels**

Minnesota Power uses natural gas for start-up and flame stabilization at the Boswell Station. Minnesota Power gets daily gas pricing from a supplier for natural gas at the Boswell Station. Minnesota Power also purchases natural gas for start-up, flame stabilization, and generation at the Hibbard Station. Minnesota Power purchases natural gas for the Hibbard Station from the City of Duluth Comfort Systems. At the Laskin Station, gas is purchased from BP as part of a gas management service contract. This agreement provides services from [TRADE SECRET DATA BEGINS [REDACTED] [REDACTED] TRADE SECRET DATA ENDS].

**Minnesota Power's  
Monthly MISO Day 2 Charges and Allocations  
January 2025 - December 2025**

**Description of the following categories shown in Attachment 3:**

- 1) **FAC Retail** – Sales MWh subject to the retail FAC allocation. Includes residential, commercial, industrial, seasonal firm loads that are allocated the retail fuel adjustment clause.
- 2) **FAC Resale** – Sales MWh subject to the resale FAC allocation. Includes municipal customers; for example; City of Nashwauk, City of Proctor, etc. that are allocated the base energy fuel adjustment clause and the monthly energy fuel adjustment clause.
- 3) **Other** – Includes contracted sales, MISO Market sales, and liquidation.

## **2025 FAC Forecast Assumptions- MISO Costs**

### **Day Ahead Bilateral Congestion and Losses:**

- **Included in Congestion and Losses**
- Minnesota Power uses actual purchase and sale transactions in place during the forecasted time frame to determine the total MWh of purchases and sales on a monthly basis. The monthly MWh of the purchases and sales are then multiplied by the historical price spread between the specific Source and Sinks of the specific transactions. The historical price spread is determined by taking the average of the price spread between the specific Source and Sink for the specific month for the previous three years.

### **Generation to Load LMP Differential:**

- **Included in Congestion and Losses**
- Minnesota Power uses forecasted monthly generation to determine the total MWh on a monthly basis. The monthly MWh of the generation is then multiplied by the historical price spread between the specific Source and Sinks of the Generation to Load. The historical price spread is determined by taking the average of the price spread between the specific Source and Sink for the specific month for the previous three years.

### **Auction Revenue Rights (Included in FTRs and ARRS):**

- **Included in FTRs and ARRs**
- See Attachment 4 for assumptions on ARR's

### **Financial Transmission Rights Annual Transactions:**

- **Included in FTRs and ARRs**
- See Attachment 4 for assumptions on FTR Transactions

### **Real Time Revenue Sufficiency Guarantee First Pass:**

- **Included in RSG and Make Whole Payments**
- Based on prior year average instead of 3-year average due to economic commitment of units

### **All Other MISO Costs:**

- Assumed a 36-month average rounded to the nearest thousand
- Average based on actual historical for January 2021 - December 2023

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**MISO MONTHLY ALLOCATION**

	January 2025	FPE Retail			FAC Resale			Subtotal FPE and FAC	Other	
		Mwh	Cost	Revenue	Mwh	Cost	Revenue	Cost/(Revenue)	Mwh	Cost/(Revenue)
		<b>690,603</b>			<b>127,112</b>				<b>343,783</b>	
Energy Charges	-	-	-	-	-	-	-	-	-	
Market Administration Charges	164,400.00	109,096	-	20,780	-	-	129,876.00	-	34,524.00	
Congestion and Loss Charges	5,675,760.54	4,102,553	(325,164)	781,439	(61,936)	-	4,496,891.31	-	1,178,869.23	
FTRs and ARRs	(440,662.03)	14,599	(307,023)	2,781	(58,480)	-	(348,123.01)	-	(92,539.03)	
RSG and Make Whole Payments	98,000.00	95,558	(30,526)	18,202	(5,814)	-	77,420.00	-	20,580.00	
RNU Charges	238,000.00	157,937	-	30,083	-	-	188,020.00	-	49,980.00	
ASM Charge Types	18,000.00	95,558	(83,614)	18,202	(15,926)	-	14,220.00	-	3,780.00	
Grandfathered Charge Types	-	-	-	-	-	-	-	-	-	
Miscellaneous Charges	55,000.00	36,498	-	6,952	-	-	43,450.00	-	11,550.00	
<b>Total</b>	<b>5,808,498.51</b>	<b>690,603</b>	<b>4,611,799</b>	<b>(746,326)</b>	<b>127,112</b>	<b>878,438</b>	<b>(142,157)</b>	<b>4,601,754</b>	<b>343,783</b>	<b>1,206,744</b>

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**MINNESOTA POWER**

**MISO MONTHLY ALLOCATION**

	February 2025	FPE Retail			FAC Resale			Subtotal FPE and FAC	Other	
		Mwh	Cost	Revenue	Mwh	Cost	Revenue	Cost/(Revenue)	Mwh	Cost/(Revenue)
		<b>622,069</b>			<b>110,365</b>				<b>290,726</b>	
Energy Charges	-	-	-	-	-	-	-		-	
Market Administration Charges	164,400.00	113,189	-	19,975	-	-	133,164.00		31,236.00	
Congestion and Loss Charges	4,674,610.66	3,552,403	(337,365)	626,895	(59,535)	-	3,782,398.21		892,212.45	
FTRs and ARRs	(440,662.03)	15,147	(318,543)	2,673	(56,213)	-	(356,936.25)		(83,725.79)	
RSG and Make Whole Payments	98,000.00	99,144	(31,671)	17,496	(5,589)	-	79,380.00		18,620.00	
RNU Charges	238,000.00	163,863	-	28,917	-	-	192,780.00		45,220.00	
ASM Charge Types	18,000.00	99,144	(86,751)	17,496	(15,309)	-	14,580.00		3,420.00	
Grandfathered Charge Types	-	-	-	-	-	-	-		-	
Miscellaneous Charges	55,000.00	37,868	-	6,683	-	-	44,550.00		10,450.00	
<b>Total</b>	<b>4,807,348.63</b>	<b>622,069</b>	<b>4,080,758</b>	<b>(774,330)</b>	<b>110,365</b>	<b>720,134</b>	<b>(136,646)</b>	<b>3,889,916</b>	<b>290,726</b>	<b>917,433</b>



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**MINNESOTA POWER**

**MISO MONTHLY ALLOCATION**

	March 2025	FPE Retail			FAC Resale			Subtotal FPE and FAC	Other	
		Mwh	Cost	Revenue	Mwh	Cost	Revenue	Cost/(Revenue)	Mwh	Cost/(Revenue)
		<b>656,718</b>			<b>116,661</b>				<b>287,091</b>	
Energy Charges	-	-	-	-	-	-	-	-	-	
Market Administration Charges	164,400.00	113,189	-	19,975	-	-	133,164.00	31,236.00		
Congestion and Loss Charges	2,943,290.57	2,359,239	(337,365)	416,336	(59,535)	-	2,378,675.20	564,615.36		
FTRs and ARRs	(268,882.46)	15,147	(200,273)	2,673	(35,342)	-	(217,794.80)	(51,087.67)		
RSG and Make Whole Payments	98,000.00	99,144	(31,671)	17,496	(5,589)	-	79,380.00	18,620.00		
RNU Charges	238,000.00	163,863	-	28,917	-	-	192,780.00	45,220.00		
ASM Charge Types	18,000.00	99,144	(86,751)	17,496	(15,309)	-	14,580.00	3,420.00		
Grandfathered Charge Types	-	-	-	-	-	-	-	-		
Miscellaneous Charges	55,000.00	37,868	-	6,683	-	-	44,550.00	10,450.00		
<b>Total</b>	<b>3,247,808.10</b>	<b>656,718</b>	<b>2,887,594</b>	<b>(656,060)</b>	<b>116,661</b>	<b>509,575</b>	<b>(115,775)</b>	<b>2,625,334</b>	<b>287,091</b>	<b>622,474</b>

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**MINNESOTA POWER**

**MISO MONTHLY ALLOCATION**

	April 2025	FPE Retail			FAC Resale			Subtotal FPE and FAC	Other	
		Mwh	Cost	Revenue	Mwh	Cost	Revenue	Cost/(Revenue)	Mwh	Cost/(Revenue)
		<b>598,635</b>			<b>110,929</b>				<b>307,486</b>	
Energy Charges	-	-	-	-	-	-	-	-	-	
Market Administration Charges	164,400.00	109,096	-	20,780	-	-	129,876.00	34,524.00	-	
Congestion and Loss Charges	2,990,315.24	2,322,248	(325,164)	442,333	(61,936)	-	2,377,480.38	612,834.86	-	
FTRs and ARRs	(268,882.46)	14,599	(193,030)	2,781	(36,768)	-	(212,417.15)	(56,465.32)	-	
RSG and Make Whole Payments	98,000.00	95,558	(30,526)	18,202	(5,814)	-	77,420.00	20,580.00	-	
RNU Charges	238,000.00	157,937	-	30,083	-	-	188,020.00	49,980.00	-	
ASM Charge Types	18,000.00	95,558	(83,614)	18,202	(15,926)	-	14,220.00	3,780.00	-	
Grandfathered Charge Types	-	-	-	-	-	-	-	-	-	
Miscellaneous Charges	55,000.00	36,498	-	6,952	-	-	43,450.00	11,550.00	-	
<b>Total</b>	<b>3,294,832.77</b>	<b>598,635</b>	<b>2,831,494</b>	<b>(632,333)</b>	<b>110,929</b>	<b>539,332</b>	<b>(120,444)</b>	<b>2,618,049</b>	<b>307,486</b>	<b>676,784</b>

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**MISO MONTHLY ALLOCATION**

	May 2025	FPE Retail			FAC Resale			Subtotal FPE and FAC	Other	
		Mwh	Cost	Revenue	Mwh	Cost	Revenue	Cost/(Revenue)	Mwh	Cost/(Revenue)
		<b>617,336</b>			<b>113,877</b>				<b>297,728</b>	
Energy Charges	-	-	-	-	-	-	-	-	-	
Market Administration Charges	164,400.00	113,239	-	21,569	-	-	134,808.00	29,592.00		
Congestion and Loss Charges	1,945,538.67	1,676,421	(337,512)	319,318	(64,288)	-	1,593,938.85	351,599.82		
FTRs and ARRs	(268,882.46)	15,154	(200,360)	2,886	(38,164)	-	(220,483.62)	(48,398.84)		
RSG and Make Whole Payments	98,000.00	99,187	(31,685)	18,893	(6,035)	-	80,360.00	17,640.00		
RNU Charges	238,000.00	163,934	-	31,226	-	-	195,160.00	42,840.00		
ASM Charge Types	18,000.00	99,187	(86,789)	18,893	(16,531)	-	14,760.00	3,240.00		
Grandfathered Charge Types	-	-	-	-	-	-	-	-		
Miscellaneous Charges	55,000.00	37,884	-	7,216	-	-	45,100.00	9,900.00		
<b>Total</b>	<b>2,250,056.21</b>	<b>617,336</b>	<b>2,205,006</b>	<b>(656,345)</b>	<b>113,877</b>	<b>420,001</b>	<b>(125,018)</b>	<b>1,843,643</b>	<b>297,728</b>	<b>406,413</b>

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**MISO MONTHLY ALLOCATION**

	June 2025	FPE Retail			FAC Resale			Subtotal FPE and FAC	Other	
		Mwh	Cost	Revenue	Mwh	Cost	Revenue	Cost/(Revenue)	Mwh	Cost/(Revenue)
		<b>599,442</b>			<b>107,716</b>				<b>327,746</b>	
Energy Charges	-	-	-	-	-	-	-	-	-	
Market Administration Charges	164,400.00	106,202	-	18,742	-	-	124,944.00	39,456.00	-	
Congestion and Loss Charges	2,026,722.87	1,633,181	(316,540)	288,208	(55,860)	-	1,548,989.99	477,732.88	-	
FTRs and ARRs	(805,760.25)	14,212	(534,733)	2,508	(94,365)	-	(612,377.79)	(193,382.46)	-	
RSG and Make Whole Payments	98,000.00	93,024	(29,716)	16,416	(5,244)	-	74,480.00	23,520.00	-	
RNU Charges	238,000.00	153,748	-	27,132	-	-	180,880.00	57,120.00	-	
ASM Charge Types	18,000.00	93,024	(81,396)	16,416	(14,364)	-	13,680.00	4,320.00	-	
Grandfathered Charge Types	-	-	-	-	-	-	-	-	-	
Miscellaneous Charges	55,000.00	35,530	-	6,270	-	-	41,800.00	13,200.00	-	
<b>Total</b>	<b>1,794,362.62</b>	<b>599,442</b>	<b>2,128,922</b>	<b>(962,385)</b>	<b>107,716</b>	<b>375,692</b>	<b>(169,833)</b>	<b>1,372,396</b>	<b>327,746</b>	<b>421,966</b>

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**MINNESOTA POWER**

**MISO MONTHLY ALLOCATION**

	July 2025	FPE Retail			FAC Resale			Subtotal FPE and FAC	Other	
		Mwh	Cost	Revenue	Mwh	Cost	Revenue	Cost/(Revenue)	Mwh	Cost/(Revenue)
		<b>638,994</b>			<b>109,512</b>				<b>352,143</b>	
Energy Charges	-	-	-	-	-	-	-	-	-	
Market Administration Charges	164,400.00	107,600	-	18,988	-	-	126,588.00	37,812.00	-	
Congestion and Loss Charges	2,659,800.45	2,058,983	(320,705)	363,350	(56,595)	-	2,045,033.42	614,767.03	-	
FTRs and ARRs	(805,760.25)	14,399	(541,769)	2,541	(95,606)	-	(620,435.40)	(185,324.86)	-	
RSG and Make Whole Payments	98,000.00	94,248	(30,107)	16,632	(5,313)	-	75,460.00	22,540.00	-	
RNU Charges	238,000.00	155,771	-	27,489	-	-	183,260.00	54,740.00	-	
ASM Charge Types	18,000.00	94,248	(82,467)	16,632	(14,553)	-	13,860.00	4,140.00	-	
Grandfathered Charge Types	-	-	-	-	-	-	-	-	-	
Miscellaneous Charges	55,000.00	35,998	-	6,353	-	-	42,350.00	12,650.00	-	
<b>Total</b>	<b>2,427,440.19</b>	<b>638,994</b>	<b>2,561,247</b>	<b>(975,048)</b>	<b>109,512</b>	<b>451,985</b>	<b>(172,067)</b>	<b>1,866,116</b>	<b>352,143</b>	<b>561,324</b>

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**MINNESOTA POWER**

**MISO MONTHLY ALLOCATION**

	August 2025	FPE Retail			FAC Resale			Subtotal FPE and FAC	Other	
		Mwh	Cost	Revenue	Mwh	Cost	Revenue	Cost/(Revenue)	Mwh	Cost/(Revenue)
		<b>633,242</b>			<b>111,537</b>				<b>336,267</b>	
Energy Charges	-	-	-	-	-	-	-	-	-	
Market Administration Charges	164,400.00	110,395	-	19,481	-	-	129,876.00	34,524.00	-	
Congestion and Loss Charges	3,714,395.66	2,810,667	(329,035)	496,000	(58,065)	-	2,919,566.79	794,828.87	-	
FTRs and ARRs	(805,760.25)	14,773	(555,841)	2,607	(98,090)	-	(636,550.60)	(169,209.65)	-	
RSG and Make Whole Payments	98,000.00	96,696	(30,889)	17,064	(5,451)	-	77,420.00	20,580.00	-	
RNU Charges	238,000.00	159,817	-	28,203	-	-	188,020.00	49,980.00	-	
ASM Charge Types	18,000.00	96,696	(84,609)	17,064	(14,931)	-	14,220.00	3,780.00	-	
Grandfathered Charge Types	-	-	-	-	-	-	-	-	-	
Miscellaneous Charges	55,000.00	36,933	-	6,518	-	-	43,450.00	11,550.00	-	
<b>Total</b>	<b>3,482,035.40</b>	<b>633,242</b>	<b>3,325,976</b>	<b>(1,000,374)</b>	<b>111,537</b>	<b>586,937</b>	<b>(176,537)</b>	<b>2,736,002</b>	<b>336,267</b>	<b>746,033</b>

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**MINNESOTA POWER**

**MISO MONTHLY ALLOCATION**

	September 2025	FPE Retail			FAC Resale			Subtotal FPE and FAC	Other	
		Mwh	Cost	Revenue	Mwh	Cost	Revenue	Cost/(Revenue)	Mwh	Cost/(Revenue)
		<b>608,507</b>			<b>112,708</b>				<b>186,744</b>	
Energy Charges	-	-	-	-	-	-	-	-	-	
Market Administration Charges	164,400.00	111,858	-	21,306	-	-	133,164.00	31,236.00	-	
Congestion and Loss Charges	2,230,029.38	1,850,273	(333,396)	352,433	(63,504)	-	1,805,805.92	424,223.46	-	
FTRs and ARRs	(805,830.03)	14,969	(563,256)	2,851	(107,287)	-	(652,722.32)	(153,107.71)	-	
RSG and Make Whole Payments	98,000.00	97,978	(31,298)	18,662	(5,962)	-	79,380.00	18,620.00	-	
RNU Charges	238,000.00	161,935	-	30,845	-	-	192,780.00	45,220.00	-	
ASM Charge Types	18,000.00	97,978	(85,730)	18,662	(16,330)	-	14,580.00	3,420.00	-	
Grandfathered Charge Types	-	-	-	-	-	-	-	-	-	
Miscellaneous Charges	55,000.00	37,422	-	7,128	-	-	44,550.00	10,450.00	-	
<b>Total</b>	<b>1,997,599.35</b>	<b>608,507</b>	<b>2,372,412</b>	<b>(1,013,680)</b>	<b>112,708</b>	<b>451,888</b>	<b>(193,082)</b>	<b>1,617,538</b>	<b>186,744</b>	<b>380,062</b>

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**MINNESOTA POWER**

**MISO MONTHLY ALLOCATION**

	October 2025	FPE Retail			FAC Resale			Subtotal FPE and FAC	Other	
		Mwh	Cost	Revenue	Mwh	Cost	Revenue	Cost/(Revenue)	Mwh	Cost/(Revenue)
		<b>620,053</b>			<b>116,146</b>				<b>298,329</b>	
Energy Charges	-	-	-	-	-	-	-		-	
Market Administration Charges	164,400.00	104,953	-	19,991	-	-	124,944.00		39,456.00	
Congestion and Loss Charges	2,907,065.21	2,175,034	(312,816)	414,292	(59,584)	-	2,216,926.68		690,138.53	
FTRs and ARRs	(805,830.03)	14,045	(528,487)	2,675	(100,664)	-	(612,430.82)		(193,399.21)	
RSG and Make Whole Payments	98,000.00	91,930	(29,366)	17,510	(5,594)	-	74,480.00		23,520.00	
RNU Charges	238,000.00	151,939	-	28,941	-	-	180,880.00		57,120.00	
ASM Charge Types	18,000.00	91,930	(80,438)	17,510	(15,322)	-	13,680.00		4,320.00	
Grandfathered Charge Types	-	-	-	-	-	-	-		-	
Miscellaneous Charges	55,000.00	35,112	-	6,688	-	-	41,800.00		13,200.00	
<b>Total</b>	<b>2,674,635.18</b>	<b>620,053</b>	<b>2,664,943</b>	<b>(951,107)</b>	<b>116,146</b>	<b>507,608</b>	<b>(181,163)</b>	<b>2,040,280</b>	<b>298,329</b>	<b>634,355</b>



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**MINNESOTA POWER**

**MISO MONTHLY ALLOCATION**

	November 2025	FPE Retail			FAC Resale			Subtotal FPE and FAC	Other	
		Mwh	Cost	Revenue	Mwh	Cost	Revenue	Cost/(Revenue)	Mwh	Cost/(Revenue)
		<b>643,798</b>			<b>118,338</b>				<b>343,516</b>	
Energy Charges	-	-	-		-	-	-		-	
Market Administration Charges	164,400.00	107,715	-		20,517	-	128,232.00		36,168.00	
Congestion and Loss Charges	3,600,561.00	2,668,996	(321,048)		508,380	(61,152)	2,795,176.38		805,384.61	
FTRs and ARRs	(805,830.03)	14,414	(542,394)		2,746	(103,313)	(628,547.42)		(177,282.61)	
RSG and Make Whole Payments	98,000.00	94,349	(30,139)		17,971	(5,741)	76,440.00		21,560.00	
RNU Charges	238,000.00	155,938	-		29,702	-	185,640.00		52,360.00	
ASM Charge Types	18,000.00	94,349	(82,555)		17,971	(15,725)	14,040.00		3,960.00	
Grandfathered Charge Types	-	-	-		-	-	-		-	
Miscellaneous Charges	55,000.00	36,036	-		6,864	-	42,900.00		12,100.00	
<b>Total</b>	<b>3,368,130.97</b>	<b>643,798</b>	<b>3,171,797</b>	<b>(976,137)</b>	<b>118,338</b>	<b>604,152</b>	<b>(185,931)</b>	<b>2,613,881</b>	<b>343,516</b>	<b>754,250</b>

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**MINNESOTA POWER**

**MISO MONTHLY ALLOCATION**

	December 2025	FPE Retail			FAC Resale			Subtotal FPE and FAC	Other	
		Mwh	Cost	Revenue	Mwh	Cost	Revenue	Cost/(Revenue)	Mwh	Cost/(Revenue)
		<b>689,621</b>			<b>123,981</b>				<b>341,280</b>	
Energy Charges	-	-	-	-	-	-	-		-	
Market Administration Charges	164,400.00	110,395	-	19,481	-	-	129,876.00		34,524.00	
Congestion and Loss Charges	5,884,668.42	4,297,829	(329,035)	758,440	(58,065)	-	4,669,169.89		1,215,498.54	
FTRs and ARRs	(440,662.03)	14,773	(310,678)	2,607	(54,825)	-	(348,123.01)		(92,539.03)	
RSG and Make Whole Payments	98,000.00	96,696	(30,889)	17,064	(5,451)	-	77,420.00		20,580.00	
RNU Charges	238,000.00	159,817	-	28,203	-	-	188,020.00		49,980.00	
ASM Charge Types	18,000.00	96,696	(84,609)	17,064	(14,931)	-	14,220.00		3,780.00	
Grandfathered Charge Types	-	-	-	-	-	-	-		-	
Miscellaneous Charges	55,000.00	36,933	-	6,518	-	-	43,450.00		11,550.00	
<b>Total</b>	<b>6,017,406.39</b>	<b>689,621</b>	<b>4,813,139</b>	<b>(755,211)</b>	<b>123,981</b>	<b>849,377</b>	<b>(133,272)</b>	<b>4,774,033</b>	<b>341,280</b>	<b>1,243,374</b>

**PUBLIC DOCUMENT  
TRADE SECRET DATA EXCISED**

**MINNESOTA POWER**

**MISO MONTHLY ALLOCATION**

January - December 2025
-------------------------

Energy Charges -  
Market Administration Charges 1,972,800.00  
Congestion Charges 41,252,758.66  
FTRs and ARRs (6,963,404.35)  
RSG and Make Whole Payments 1,176,000.00  
RNU Charges 2,856,000.00  
ASM Charge Types 216,000.00  
Grandfathered Charge Types -  
Miscellaneous Charges 660,000.00

**41,170,154.32**

FPE Retail			FAC Resale			Subtotal FPE and FAC	Other	
Mwh	Cost	Revenue	Mwh	Cost	Revenue	Cost/(Revenue)		Cost/(Revenue)
7,619,018	-	-	1,378,882	-	-	-	3,712,839	-
	1,316,926.20	-		241,585.80	-	1,558,512.00		414,288.00
	31,507,827.87	(3,925,145.00)		5,767,425.15	(720,055.00)	32,630,053.01		8,622,705.65
	176,231.00	(4,796,384.61)		32,329.00	(879,117.57)	(5,466,942.18)		(1,496,462.16)
	1,153,512.00	(368,483.00)		211,608.00	(67,597.00)	929,040.00		246,960.00
	1,906,499.00	-		349,741.00	-	2,256,240.00		599,760.00
	1,153,512.00	(1,009,323.00)		211,608.00	(185,157.00)	170,640.00		45,360.00
	-	-		-	-	-		-
	440,577.50	-		80,822.50	-	521,400.00		138,600.00
<b>7,619,018</b>	<b>37,655,086</b>	<b>(10,099,336)</b>	<b>1,378,882</b>	<b>6,895,119</b>	<b>(1,851,927)</b>	<b>32,598,943</b>		<b>8,571,211</b>

**Treatment of Auction Revenue Rights**  
Docket No. E015/M-05-277

Minnesota Power participates in MISO’s annual Auction Revenue Rights (“ARR”) allocation to secure ARRs from generation to load. Minnesota Power self-schedules allocated ARRs into the annual Financial Transaction Rights (“FTR”) Auction, converting them to FTRs that help minimize Day-Ahead congestion costs between generation/bilateral purchases and load.

Minnesota Power also submits bids in monthly and seasonal FTR auctions in an attempt to secure additional FTRs that either provide further generation to load protection or would help minimize congestion costs on bilateral purchases and sales.

The FTR and ARR MISO charge types are allocated consistent with current Minnesota Power’s allocation methods. Charges are allocated to the retail and wholesale customers based on a per MWh basis.

**2025 Estimated Annual Allocation:**

January through December 2025 is based on actual allocations from the previous year as the Annual ARR Allocation was not completed at the time of submittal. This is consistent with what was used in Attachment 3 – MISO Costs. Monthly detail of the forecasted FTR and ARR MISO Charge types can be found in Attachment 3.

2024 Estimated Annual Allocation											
		Winter (Jan-Feb)		Spring		Summer		Fall		Winter (Dec)	
Source	Sink	On Peak	Off Peak	On Peak	Off Peak	On Peak	Off Peak	On Peak	Off Peak	On Peak	Off Peak
[TRADE SECRET DATA BEGINS]											
[REDACTED DATA]											
[TRADE SECRET DATA ENDS]											

**Forecasted Planned and Unplanned Outages and  
Forecasted Replacement Power Costs**  
Docket No. E999/AA-08-995

## **Outage Methodology for Large Units (Boswell Units 3 & 4)**

### **Planned Outage Methodology**

Long-term planned outage schedules for Boswell Energy Center are based on Original Equipment Manufacturer (“OEM”) guidelines, FM Global Insurance provider recommendations, and historical plant operational and maintenance records.

Planned outages are scheduled for major turbine maintenance. For Boswell Units 3 and 4, the OEM guidelines recommend a major inspection and maintenance of the turbine every 100,000 hours, or approximately every 10 years. The major turbine maintenance planned outages are typically 8-10 weeks in duration.

The Low Pressure (“LP”) turbine, turbine valves, and generator inspections and repairs are scheduled based on the OEM recommended intervals. The OEM recommendations are to inspect valves, generators, and LP turbine every five years. The valve and generator planned outages are typically 4-6 weeks in duration.

Planned outages are scheduled between the major five and ten-year outages for major boiler related outages, including boiler chemical cleans. The major boiler planned outages are typically 2-4 weeks in duration. The actual outage length is adjusted for the known work scope.

Planned outages are then scheduled for inspections, boiler cleaning and other identified work in order to ensure unit reliability in the higher demand seasons of winter and summer. One of the reasons for frequent boiler inspection is to assure that the combustion systems and pollution control equipment are operating as designed to assure compliance. The outages are typically 3-10 days. If the unit has a longer unplanned/forced outage that is close to the next planned outage, the planned outage duration and/or timing may be adjusted due to planned outage work being performed during unplanned/forced outages. The goal is always to minimize the overall number of days a year a unit is unavailable for service.

Planned maintenance outages are scheduled for a minimum rolling 24-month period and updated on a daily basis as needed per MISO requirements. In addition, the 10-year long-term planned outage schedule is reviewed and updated at least annually.

### **Unplanned Outage Methodology**

Minnesota Power utilizes the average of the previous ten years of the NERC Generating Availability Data System (“GADS”) Equivalent Unplanned Outage Factor (“EUOF”) to calculate unplanned outages. The EUOF is the percent of hours during the year (given period) the unit was in an unplanned outage. The ten-year average ensures one good or bad year does not over- or under-state forecasted unit performance.

### **Causes of Unplanned Outages**

#### **Tube Leaks**

Tube leaks are statistically the most common cause of outages in coal fired power plants. The following are the most common causes of tube leaks:

Thermal fatigue manifests itself as cracking of the boiler tubes - sometimes as very small "micro" cracks and sometimes as large cracks. This occurs as a result of changing boiler temperatures, usually when the boiler swings up or down to follow load and when the boilers start up and shut down. This is a similar effect to bending a paper clip back and forth - after so many cycles it eventually breaks. Minimizing boiler “swings” (base loading) helps decrease the impact of thermal fatigue. However, with the energy markets being what they are with the ever increasing impacts of intermittent wind generation, we are seeing more and more swings in output.

Soot blower erosion occurs throughout the boiler in every soot blower location. Soot blowers use high pressure steam or high pressure air to do the cleaning. The ash removal is necessary to prevent the boiler from plugging up. When the boiler plugs up, it restricts air flow which will cause the boiler to come offline and require manual ash and slag removal. Common practices to mitigate soot blower erosion are to add a weld overlay (commonly called “pad welding”) to existing tubes, add tube shields which are essential sacrificial attachments to the tubes, change soot blower media pressure (usually not an



option), and replace tubes in the affected areas. The use of the soot blowers is essential in keeping the units on line. Coal composition can differ from mine to mine or even within the same mine. As we look to find the best low cost fuel blend for our customers, certain coals may cause more fouling than others. The increased potential of this fouling requires both the frequency and duration of soot blowing to increase which minimizes the buildup on the boiler tubes. Due to increased soot blowing activities, we have implemented the use of different weld overlay alloys throughout the boiler in an effort to maintain unit reliability.

Fly ash erosion occurs when fly ash and combustion gases pass rapidly across superheated boiler tube surfaces. Because of the abrasiveness of fly ash, the surface of boiler tubes in the high flow areas slowly erode. Many things contribute to the amount of erosion, such as gas path restrictions (plugging - see reasons for soot blowing above), variations in coal quality (higher ash content), and other additives that are added to the fuel mix typically for emission control, etc.

Chemical attack is becoming a common source of tube failures due to the corrosiveness of many of the additives being used to control emissions. When these chemicals come in contact with very hot boiler tubes, their normal corrosiveness is significantly increased. Since there tend to be few options for using alternate less corrosive additives, a common solution is to look at tube materials that perform better in the corrosive environment. This is usually a very expensive fix and can have environmental compliance implications.

Corrosion fatigue occurs as a co-joint action of cyclic strain and a corrosive environment acting to produce failure earlier than pure fatigue or corrosion acting along. Boswell 3 has been especially prone to this due to the original boiler design.

Dissimilar metal welds "DMW" failures occur at the weld juncture where carbon steel or low alloy steels (ferritic side) are welded to stainless or higher alloy steels (austenitic side) and used in high temperature applications. The large difference in coefficient of expansion of the two steels, which is exacerbated by thermal cycling, results in cracking at the toe of the weld joining the two materials. Using austenitic stainless filler material for the DMW

junction, which is required when making these weld joints, also increases the stress on the toe of the weld on the ferritic side of the weldment.

Minnesota Power's boiler reliability program proactively identifies areas of the boilers where tube leaks are likely to occur to reduce the risk of future failures. The program uses a combination of visual inspections, non-destructive testing methods, tube sample analysis, tube failure history, and industry experiences to minimize forced outages due to unexpected tube leaks.

To give some perspective on the challenges with any boiler reliability program, consider the following:

- Boswell-3 boiler has 473,891 ft (89.7 miles) of varying diameter boiler tubes
- Boswell-4 boiler has 779,905 ft (147.6 miles) of varying diameter boiler tubes
- The boiler tube surface area where a leak can occur is several hundred thousand square feet in either boiler.

A tube leak usually begins as a very small hole (0.10 inch or less) in the tube wall which can expand rapidly due to the high temperature and pressure. Considering the huge surface area in a boiler and the very small size of a hole or microscopic crack that results in a tube leak, it is very difficult to effectively screen the entire boiler to prevent all tube leaks. As part of our boiler reliability program, whenever there is an opportunity to get into the boiler to do an inspection – during a forced or schedule outage – critical areas are inspected to evaluate erosion and to determine if repairs are needed. This information is used to plan for future capital expenditures to help minimize future tube leaks. During these inspection opportunities, small leaks are sometimes found and repaired. When a leak occurs, boiler pressure testing is conducted to identify any additional leaks and repair them to avoid a future forced outage. Similar proactive maintenance practices are routinely followed at the other Minnesota Power thermal facilities.

### Non-Boiler related outages

Minnesota Power has a Generation Reliability Group that is dedicated to monitoring and improving the reliability of not only the boiler, but also the rotating equipment. The group is comprised of boiler, turbine, pump and pulverizer engineers and specialists as well as specialists in predictive maintenance technologies. They work on a daily basis with the operating and maintenance groups at all facilities to improve the daily operating practices, planning for work and repairs to occur in future outages, and establishing long-term and short-term maintenance plans.

Rotating equipment that is monitored through various predictive technologies is summarized in a monthly reliability meeting with the specific plant. The manager is provided with a monthly scorecard as to their performance as well as identifying concerns and upcoming needs.

Each unit maintains a “hot list” of items that ultimately need to be completed but are awaiting an outage to be addressed because there is an available and safe work around with redundant equipment or operating procedures. Any item that jeopardizes safety or environmental compliance is immediately addressed.

### FAC Forecast Assumptions

The FAC Forecast accounts for both planned and unplanned events. The planned outages are based on the long-term planned outage schedule.

#### Planned Outages:

Unit	Start Time	End Time	Duration in Days	MISO #	Reason
	[TRADE SECRET DATA BEGINS]				
Boswell 3	[REDACTED]				
Boswell 4					
Boswell 4					
Boswell 3					
	[TRADE SECRET DATA ENDS]				

[TRADE SECRET DATA BEGINS

TRADE SECRET DATA ENDS]

**Unplanned Outages:**

<b>Generation Specifications</b>			
	<b>Econ Min</b>	<b>Econ Max</b>	<b>EUOF <sup>/1</sup></b>
Boswell Unit 3	75 MW	350 MW	7.8%
Boswell Unit 4	185 MW	580 MW	10.6%

<sup>/1</sup> The Equivalent Unplanned Outage Factor ("EUOF") is based on a 10-year average.

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	Jan-25	Feb-25	Mar-25	Apr-25	May-25	Jun-25	Jul-25	Aug-25	Sep-25	Oct-25	Nov-25	Dec-25	Total
	Boswell 3												
	[TRADE SECRET DATA BEGINS]												
Forced Days													
Forced MWhs													
Outage MWhs Replaced by Purchase													
Purchase Price													
<b>Total Forced Cost</b>													
Unit Cost													
<b>Incremental Cost</b>													
Planned Days													
Planned MWhs													
Outage MWhs Replaced by Purchase													
Purchase Price													
<b>Total Planned Cost</b>													
Unit Cost													
<b>Incremental Cost</b>													
<b>Total Outage Costs</b>													
<b>Total Incremental Costs</b>													

TRADE SECRET DATA ENDS]

	Jan-25	Feb-25	Mar-25	Apr-25	May-25	Jun-25	Jul-25	Aug-25	Sep-25	Oct-25	Nov-25	Dec-25	Total
	Boswell 4												
	[TRADE SECRET DATA BEGINS]												
Forced Days													
Forced MWhs													
Outage MWhs Replaced by Purchase													
Purchase Price													
<b>Total Cost</b>													
Unit Cost													
<b>Incremental Cost</b>													
Planned Days													
Planned MWhs													
Outage MWhs Replaced by Purchase													
Purchase Price													
<b>Total Cost</b>													
Unit Cost													
<b>Incremental Cost</b>													
<b>Total Cost</b>													
<b>Total Incremental Costs</b>													
<b>Total Outage Costs</b>													
<b>Total Incremental Costs</b>													

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TRADE SECRET DATA ENDS]

1/ Months that have increased forecasted wind generation, hydro generation, and purchases to offset replacement purchase costs and reduce the amount of outage MWh's replaced by purchases.

Unplanned Outage MWhs					
Unit	2025 Forecast Total	2023 Actuals Total	2022 Actuals Total	2021 Actuals Total	3 Year Actuals Average
	[TRADE SECRET DATA BEGINS]				
Boswell 3		141,897	214,213	96,552	150,887
Boswell 4		989,598	728,101	214,650	644,117
<b>Total</b>		<b>1,131,495</b>	<b>942,315</b>	<b>311,202</b>	<b>795,004</b>
Boswell 3 less than 24 hours		12,290	0	0	4,097
Boswell 3 more than 24 hours		129,607	214,213	96,552	146,791
<b>Total</b>		<b>141,897</b>	<b>214,213</b>	<b>96,552</b>	<b>150,887</b>
Boswell 4 less than 24 hours		21,321	0	16,797	12,706
Boswell 4 more than 24 hours		968,278	728,101	197,853	631,411
<b>Total</b>		<b>989,598</b>	<b>728,101</b>	<b>214,650</b>	<b>644,117</b>
<b>Grand Total</b>		<b>1,131,495</b>	<b>942,315</b>	<b>311,202</b>	<b>795,004</b>
	[TRADE SECRET DATA ENDS]				
				<b>2025 Forecast vs. 2023 Actuals</b>	<b>2025 Forecast vs. 2021-2023 Actuals</b>
	[TRADE SECRET DATA BEGINS]				
	[TRADE SECRET DATA ENDS]				
				<b>Percent Change</b>	
	[TRADE SECRET DATA BEGINS]				
	[TRADE SECRET DATA ENDS]				

Explanations:	
<b>2025 Forecast vs. 2023 Actuals</b>	The driver of the difference would be that Boswell 4 had a Turbine/Generator trip repair outage from August 2023 – October 2023 which equated to 78 days of outage or 847,000 MWhs. Please see the 2023 True Up Filing AA-22-216, Attachment 5 page 17 of 18 for a write up of the Turbine/Generator trip repair outage. Minnesota Power uses a 10-year average to calculate a forecasted outage rate which reduces the impact of anomaly outages like the one observed in 2023.
<b>2025 Forecast vs. 3 Year Average</b>	The driver of the difference would be that Boswell 4 in 2022 and 2023 had forced outages related to a Turbine Generator Bearing Repair and a Turbine/Generator trip repair. Please see the 2022 True Up Filing AA-21-312, Attachment 5 page 16 of 22 and the 2023 True Up Filing AA-22-216, Attachment 5 page 17 of 18 for a write up of both outages. Minnesota Power uses a 10-year average to calculate a forecasted outage rate which reduces the impact of anomaly outages like the ones observed in 2022 and 2023.

Planned Outage MWhs					
Unit	2025 Forecast Total	2023 Actuals Total	2022 Actuals Total	2021 Actuals Total	3 Year Actuals Average
	[TRADE SECRET DATA BEGINS]				
Boswell 3		92,114	215,923	278,089	195,375
Boswell 4		40,275	394,159	818,222	417,552
<b>Total</b>		<b>132,389</b>	<b>610,082</b>	<b>1,096,311</b>	<b>612,927</b>
	[TRADE SECRET DATA ENDS]				
				<b>2025 Forecast vs. 2023 Actuals</b>	<b>2025 Forecast vs. 2021-2023 Actuals</b>
	[TRADE SECRET DATA BEGINS]				
	[TRADE SECRET DATA ENDS]				
				<b>Percent Change</b>	
	[TRADE SECRET DATA BEGINS]				
	[TRADE SECRET DATA ENDS]				

Explanations:	
<b>2025 Forecast vs. 2023 Actuals</b>	During the 2023 Boswell 4 Turbine/Generator trip repair outage mentioned above, the Boswell 4 forecasted planned fall outage work was also completed. Please see the 2023 True Up Filing AA-22-216, Attachment 5 page 18 of 18 for a write up regarding the planned outage work that was done during the trip repair. Because the planned outage work was also completed during the forced outage, actual planned outage MWhs came in lower than forecast in 2023.
<b>2025 Forecast vs. 3 Year Average</b>	The main driver of the difference is 2021 actuals includes a Boswell 4 major spring outage that spanned 82 days or 772,000 MWhs (4/1/2021 - 6/18/2021). This outage was rescheduled from the spring of 2020 to the spring of 2021 due to the COVID-19 pandemic. The outage was a major turbine maintenance which occurs every 5 years.

<b>Unplanned Outage Incremental Costs</b>		
<b>Year</b>	<b>Forecasted Incremental Costs</b>	<b>Actual Incremental Costs</b>
2021	(\$633,961.53)	\$3,384,320.17
2022	(\$842,437.51)	\$9,598,117.88
2023	\$7,514,340.05	\$6,352,244.23
<b>3 Year Average</b>	<b>\$2,012,647.00</b>	<b>\$6,444,894.09</b>
<b>2025</b>	[TRADE SECRET DATA BEGINS [REDACTED]	
	[TRADE SECRET DATA ENDS]	
	<b>2025 Forecast vs. 2021-2023 Forecast</b>	<b>2025 Forecast vs. 2021-2023 Actual</b>
	<b>Difference</b>	
	[TRADE SECRET DATA BEGINS [REDACTED]	
	[TRADE SECRET DATA ENDS]	

<b>Planned Outage Incremental Costs</b>		
<b>Year</b>	<b>Forecasted Incremental Costs</b>	<b>Actual Incremental Costs</b>
2021	(\$2,869,832.41)	\$6,415,192.24
2022	(\$1,635,238.04)	\$2,697,271.39
2023	\$2,843,515.10	\$425,644.67
<b>3 Year Average</b>	<b>(\$553,851.79)</b>	<b>\$3,179,369.43</b>
<b>2025</b>	[TRADE SECRET DATA BEGINS [REDACTED]	
	[TRADE SECRET DATA ENDS]	
	<b>2025 Forecast vs. 2021-2023 Forecast</b>	<b>2025 Forecast vs. 2021-2023 Actual</b>
	<b>Difference</b>	
	[TRADE SECRET DATA BEGINS [REDACTED]	
	[TRADE SECRET DATA ENDS]	

**Annual Five-Year Projection of Fuel Costs**  
Minn. Rule 7825.2830



Minnesota Power's five-year projection of fuel costs by source of power is based on data, generated by the Electric Financial Forecast. Forecast data beyond 2025 is available on an annual basis only.

Minnesota Power has six sources of power:

- Steam Generation at Company owned plants,
- Purchased Power from South Shore Energy under a Capacity Dedication Agreement that starts in 2028.
- Purchased Power from Square Butte under a Power Purchase Agreement through end of 2025,
- Purchased Power from MISO wholesale market and from other power suppliers,
- Hydro Power from Company owned generating plants (for which there is no fuel cost), and from other power suppliers, and
- Wind Generation from Company owned generating plants, and from other power suppliers
- Solar Generation from Company owned generating plant, Community Solar Garden program, and from other power suppliers

The major assumptions in determining the fuel cost projections over the next five-year period are:

1. With the EnergyForward strategy Minnesota Power's steam generation has decreased from historical levels in order to seek a sustainable balance of energy generation that is dependable, affordable and environmentally sound to best serve its customers as stated in the previous three approved integrated resource plans filed in 2013, 2015, and 2021. Per the approved 2013 Integrated Resource Plan, in 2015 Minnesota Power retired Taconite Harbor Unit 3 generator (75 MW) and converted its Laskin Energy Center to natural gas which serves as a peaking and reliability resource for customer power supply. Per the approved 2015 Integrated Resource Plan, in fall of 2016 Taconite Harbor units 1 and 2 ("THEC") were idled (150 MW) and were utilized for reliability of the bulk electric system as market conditions required, and ceased coal-fired operations by the end of 2020.

Minnesota Power announced it ceased coal-fired operation at Boswell units 1 and 2 in December 2018. Per the approved 2021 Integrated Resource Plan, Minnesota Power retired the THEC facility in September 2021. In the 2021 Integrated Resource Plan, Minnesota Power's bold vision and definitive actions to add 700 MW of renewable generation is included in the five-year projection. Regarding remaining steam generation, per the approved 2021 Plan, Minnesota Power transitioned operations at Boswell Energy Center Unit 3 to economic dispatch in 2021; will cease coal operations at Unit 3 by year-end 2029 and Unit 4 in 2035. For the five-year projection of fuel costs, Boswell 3 was modeled as being on economic dispatch. The approved 2021 IRP puts Minnesota Power on a path to achieve 80 percent reduction in carbon emissions by 2035, while delivering safe, reliable, and affordable energy to customers across a smarter grid that is more resilient than ever before.

2. Total Steam generation costs attributed to coal are expected to **[TRADE SECRET DATA BEGINS** [REDACTED] **TRADE SECRET DATA ENDS]** from 2025 to 2029.
3. Starting in June 2015 purchased generation from Square Butte declined to reflect Minnesota Power's decreased share of the unit's total output of approximately 9 percent in 2024. After 2024, Minnesota Power's share of the output will continue to be reduced per the North Dakota Wind Project and decrease to zero by end of 2025.
4. As part of the EnergyForward strategy, Minnesota Power is adding their first efficient gas-fired combined cycle generation to the power supply in 2028. Through a Capacity Dedication Agreement with South Shore Energy, the Company would have received a share of the capacity and energy production from the approximate 580 MW NTEC project located in Superior, WI. The Capacity Dedication Agreement was approved by the Commission in October 2018. In September 2021, Minnesota Power announced it is selling a portion of its ownership stake in NTEC to North Dakota-based Basin Electric Power

Cooperative. Basin Electric will become a 30 percent owner in the facility and Minnesota Power will retain a 20 percent energy and capacity off take from NTEC. MP will propose an amendment to the CDA to reflect the 2021 sale once the Wisconsin regulatory and legal processes are concluded. The Company expects delivery of capacity and energy from this project to start January 2028. Today Minnesota Power does not have significant natural gas generation on its system, and the addition of NTEC will represent less than 5 percent of its overall power supply portfolio. Note that the NTEC project is going through the permitting process in Wisconsin. The exact in service date is unknown due to a longer than expected permitting process in WI. For the 5 year projection an estimated in-service date of 2028, but that is subject to change until the necessary permits have been granted.

5. Minnesota Power continues to use wholesale market purchases and bilateral contracts to meet its energy requirements.
6. Minnesota Power has about ~120 MW of Hydroelectric capabilities for its customer native load. There is no fuel cost associated with this energy source. Hydro generation is projected to **[TRADE SECRET DATA BEGINS [REDACTED] TRADE SECRET DATA ENDS]**. For the FAC Forecast period (2025), Minnesota Power's hydrological forecasts are based on historical production.
7. Minnesota Power has developed a robust, portfolio-based solar strategy consisting of three pillars of focus: the customer, community and utility to meet and integrate solar power supply. This strategy was submitted on June 1, 2018, as part of the Company's SES Report. Since the July 2016 approval of the 2015 Integrated Resource Plan, Minnesota Power developed its first utility scale project with 10 MW Camp Ripley Solar Project and expanded customer sited solar programs and added a 1.04 MW Community Solar Garden Program. In the 2021 Integrated Resource Plan, Minnesota Power proposed to construct three solar projects totaling 20 MW in the Company's service, which was approved by

the Commission in Docket No. E015/M-20-828. The Camp Ripley Solar Project, expanded Community Solar Garden Program, and the 20 MW of solar projects are Minnesota Power's strategy to comply with the SES. Additionally, Minnesota Power's solar portfolio is expected to generate approximately [TRADE SECRET DATA BEGINS ██████████ TRADE SECRET DATA ENDS] following the recently approved 300 MW of additional solar from the 2021 Integrated Resource Plan. The five-year projection assumed the 300 MW of solar is owned by Minnesota Power, resulting in the cost coming through the FAC at zero dollars. Minnesota Power is currently working through a Request For Proposal ("RFP") process to procure up to 300 MW of regionally located solar. The outcome of the RFP process will determine if the new solar will be owned by Minnesota Power or procured through a power purchase agreement. The five-year projection includes the 300 MW of new solar generation from the 2021 IRP given it is in the study time period.

8. Minnesota Power has developed an energy-rich wind portfolio composed of 875 MW of wind located in North Dakota and Minnesota. The 600 MW of wind energy located in North Dakota is transported across a high-voltage DC line that starts in Center, ND and terminates outside Duluth, MN. Included in the North Dakota wind portfolio is the repowering of the 100 MW Oliver 1 and 2 wind farms in 2020. Oliver 1 and 2 energy is purchased through an amended purchase power agreement with NextEra that was approved by the Commission in November 2018. This repowering project increased Oliver 1 and 2 energy production by [TRADE SECRET BEGINS ██████████ TRADE SECRET DATA ENDS] and reduced the PPA pricing by approximately [TRADE SECRET BEGINS ██████████ TRADE SECRET ENDS] per year. The remaining 275 MW of wind is located in Minnesota and includes the 250 MW Nobles 2, which came online in December 2020. Minnesota Power's wind portfolio is expected to generate approximately [TRADE SECRET DATA BEGINS ██████████ TRADE SECRET DATA ENDS]. Additionally, Minnesota Power's wind portfolio is expected to generate approximately [TRADE SECRET DATA BEGINS ██████████ TRADE SECRET DATA ENDS]

following the recently approved 400 MW of additional wind from the 2021 Integrated Resource Plan. The five-year projection assumed the 400 MW of wind is owned by Minnesota Power, resulting in the cost coming through the fuel FAC at zero dollars. Minnesota Power is currently working through a Request for Proposal (“RFP”) process to procure up to 400 MW of wind. The outcome of the RFP process will determine if the new wind will be owned by Minnesota Power or procured through a power purchase agreement. The five-year projection includes the 400 MW of new wind generation from the 2021 IRP given it is in the study time period.

For the 2025 FAC Forecast period, Minnesota Power’s wind energy production forecast is based on historical production.

	MP GENERATION					PURCHASES				COSTS RECOVERED THRU SALES COST \$(ooo)	TOTAL FUEL COST \$(ooo)	TOTAL FAC SALES MWh	AVERAGE FUEL COST per MWh	
	STEAM GENERATION			WIND GEN	HYDRO	SQUARE BUTTE		MARKET						
	COAL COST \$(ooo)	OIL & OTHER COST \$(ooo)	TOTAL MWh	TOTAL MWh	TOTAL MWh	COST \$(ooo)	TOTAL MWh	COST \$(ooo)	TOTAL MWh					
	[TRADE SECRET DATA BEGINS]					[TRADE SECRET DATA BEGINS]				[TRADE SECRET DATA BEGINS]				
JAN 25	\$11,900	\$1,355				\$3,731		\$23,052			(\$13,323)	\$26,676	817,715	\$32.62
FEB	\$9,774	\$916				\$3,425		\$19,351			(\$10,674)	\$22,739	732,434	\$31.05
MAR	\$9,015	\$564				\$3,240		\$18,366			(\$9,228)	\$21,817	773,379	\$28.21
APR	\$7,280	\$667				\$3,622		\$18,189			(\$9,623)	\$19,991	709,564	\$28.17
MAY	\$6,248	\$486				\$3,756		\$19,327			(\$9,189)	\$20,500	731,213	\$28.04
JUN	\$8,855	\$1,280				\$3,147		\$17,895			(\$11,765)	\$19,247	707,158	\$27.22
JUL	\$10,303	\$2,605				\$3,729		\$20,110			(\$13,981)	\$22,594	748,506	\$30.19
AUG	\$11,178	\$1,521				\$3,762		\$19,134			(\$11,705)	\$23,773	744,779	\$31.92
SEP	\$9,213	\$1,629				\$520		\$17,483			(\$7,447)	\$21,288	721,215	\$29.52
OCT	\$10,205	\$1,180				\$1,691		\$17,796			(\$10,115)	\$20,693	736,199	\$28.11
NOV	\$10,497	\$1,157				\$3,551		\$18,100			(\$12,122)	\$21,134	762,136	\$27.73
DEC 25	\$12,445	\$1,549				\$3,823		\$21,690			(\$13,558)	\$25,920	813,602	\$31.86
TOTAL	\$116,914	\$14,909				\$37,998		\$230,493			(\$132,731)	\$266,373	8,997,900	\$29.55
	Avg Cost per MWh													
	[TRADE SECRET DATA ENDS]					[TRADE SECRET DATA ENDS]				[TRADE SECRET DATA ENDS]				
	[TRADE SECRET DATA BEGINS]													
JAN 26 - DEC 26														
	Avg Cost per MWh													
JAN 27 - DEC 27														
	Avg Cost per MWh													
JAN 28 - DEC 28														
	Avg Cost per MWh													
JAN 29 - DEC 29														
	Avg Cost per MWh													
	[TRADE SECRET DATA ENDS]													

**Notice of Reports Availability**  
Minn. Rule 7825.2840



30 West Superior Street  
Duluth, MN 55802-2093  
[www.mnpower.com](http://www.mnpower.com)



### Notice of Reports Availability

To: All Intervenors in Minnesota Power  
Retail Rate Proceedings  
Docket Nos. E015/GR-21-335 and E015/GR-23-155

The Minnesota Public Utilities Commission requires Minnesota Power and other Minnesota public utilities to file various forecast reports concerning utility operations with the Commission as specified in Docket No. E999/CI-03-802. The subject matter of the report filed includes the following:

- 1) Independent Auditor's Report
- 2) Automatic Fuel Adjustment Clause Forecast to Actual Comparison
- 3) MISO Day 2 Charges and Allocations
- 4) ARR Information and Process
- 5) Plant Outage Reporting
- 6) Annual and Daily ASM Charges and Summary
- 7) Report Addressing the Purchase Power Agreement with Manitoba Hydro
- 8) Wind Curtailment Reporting
- 9) Offsetting Revenues and/or Compensation Received by Investor-Owned Utilities (IOUs)
- 10) Generation Facilities Maintenance Expense Report
- 11) Fuel and Energy Source Procurement and Energy Dispatching Policies

Minnesota Rule 7825.2840 requires Minnesota Power to provide this notice of availability of such reports to all Intervenors in the previous two general rate cases. A copy of the above report is available for public inspection at the MPUC offices, 121 East 7<sup>th</sup> Place, Suite 350, St. Paul, MN 55101-2147, on the Minnesota Department of Commerce e-Dockets website (<https://www.edockets.state.mn.us/EFiling>), or upon written request to the following:

Minnesota Power  
Claire Vatalaro  
Regulatory Compliance Specialist  
30 West Superior Street  
Duluth, MN 55802

Please note that certain information contained in these reports is considered trade secret and is unavailable to the public.



**Certificate of Service**

It is hereby certified that the foregoing Notice of Report Availability, along with a copy of the report, was delivered to the Minnesota Department of Commerce and the Office of the Attorney General, and the interveners in Minnesota Power's previous two general rate cases.

**Minnesota Power**

By:

/s/ Claire Vatalaro

Claire Vatalaro

Regulatory Compliance Administrator

Dated: May 1, 2024

**PUBLIC DOCUMENT  
TRADE SECRET DATA EXCISED**

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Kevin	Adams	kadams@caprw.org	Community Action Partnership of Ramsey & Washington Counties	450 Syndicate St N Ste 35  Saint Paul, MN 55104	Electronic Service	No	OFF_SL_21-335_21-335
Lori	Andresen	info@sosbluewater.org	Save Our Sky Blue Waters	P.O. Box 3661  Duluth, Minnesota 55803	Electronic Service	No	OFF_SL_21-335_21-335
Allen	Barr	allen.barr@ag.state.mn.us	Office of the Attorney General-DOC	445 Minnesota St Ste 1400  Saint Paul, MN 55101	Electronic Service	No	OFF_SL_21-335_21-335
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Kristin	Berkland	kristin.berkland@ag.state.mn.us	Office of the Attorney General-RUD	445 Minnesota Street Bremer Tower, Suite 1400 St. Paul, MN 55101	Electronic Service	No	OFF_SL_21-335_21-335
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First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
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Generic Notice	Commerce Attorneys	commerce.attorneys@ag.state.mn.us	Office of the Attorney General-DOC	445 Minnesota Street Suite 1400  St. Paul, MN 55101	Electronic Service	Yes	OFF_SL_21-335_21-335
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First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
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First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
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First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
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Jennifer	Peterson	jjpeterson@mnpower.com	Minnesota Power	30 West Superior Street  Duluth, MN 55802	Electronic Service	No	OFF_SL_21-335_21-335
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Tolaver	Rapp	Tolaver.Rapp@cliffsnr.com	Cliffs Natural Resources	200 Public Square Suite 3400 Cleveland, OH 441142318	Electronic Service	No	OFF_SL_21-335_21-335
Generic Notice	Residential Utilities Division	residential.utilities@ag.state.mn.us	Office of the Attorney General-RUD	1400 BRM Tower 445 Minnesota St St. Paul, MN 551012131	Electronic Service	Yes	OFF_SL_21-335_21-335
Kevin	Reuther	kreuther@mncenter.org	MN Center for Environmental Advocacy	26 E Exchange St, Ste 206  St. Paul, MN 551011667	Electronic Service	No	OFF_SL_21-335_21-335
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First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
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First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
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First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
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Generic Notice	Commerce Attorneys	commerce.attorneys@ag.state.mn.us	Office of the Attorney General-DOC	445 Minnesota Street Suite 1400  St. Paul, MN 55101	Electronic Service	Yes	OFF_SL_23-155_Official
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First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
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Generic Notice	Residential Utilities Division	residential.utilities@ag.state.mn.us	Office of the Attorney General-RUD	1400 BRM Tower 445 Minnesota St St. Paul, MN 551012131	Electronic Service	Yes	OFF_SL_23-155_Official
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