



August 31, 2022

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 2023 through December 2023
Docket No. E015/AA-22-216
Reply Comments**

Dear Mr. Seuffert:

Minnesota Power respectfully submits these Reply Comments in response to the Initial Comments submitted on June 30, 2022, by the Minnesota Department of Commerce, Division of Energy Resources in the above referenced Docket.

Please contact me at (218) 355-3455 or hcreurer@allete.com if you have any questions regarding this compliance filing. For all discovery related inquiries please email hcreurer@allete.com and discoverymanager@mnpower.com.

Kind Regards,

Hillary A. Creurer
Regulatory Compliance Administrator

HAC:th
Attach.

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

In the Matter of Minnesota Power's Petition for
Approval of the Annual Forecasted Rates for its
Rider for Fuel and Purchased Energy Charge

Docket No. E015/AA-20-463
**MINNESOTA POWER'S
REPLY COMMENTS**

I. INTRODUCTION

On June 30, 2022, the Minnesota Department of Commerce, Division of Energy Resources ("Department") submitted its Comments of Minnesota Power's (or the "Company") 2023 Forecasted Rates for the Fuel and Purchased Energy Charge Rider ("2023 FPE Forecast") dated May 2, 2022, in the above-referenced Docket. Minnesota Power appreciates the Department's review of the 2023 FPE Forecast and its recommendation that the Commission accept the Company's forecast. The additional information requested by the Department is provided below.

On July 22, 2022, Minnesota Power requested an extension to allow sufficient time to update the 2023 FPE Forecast. On July 28, 2022, the Commission issued a Notice of Extended Reply Comment Period which granted Minnesota Power's extension request until August 31, 2022.

II. 2023 FPE FORECAST UPDATE

The main driver for the revised 2023 FPE Forecast is due to continued higher Midcontinent Independent System Operator ("MISO") market pricing and the associated impacts on congestion costs between Company generation and load. Minnesota Power also anticipates an increase in generation from Boswell Energy Center due to higher MISO market pricing. For additional details see the revised attachments which include the costs and variance explanations.

A. 2023 FPE Forecast - Revised Attachment 1

Tables 1 and 2 below provide a summary comparison of the original forecasted FPE costs to the revised forecasted costs for 2023.

Table 1: Forecasted Fuel Cost Summary

2023 Forecasted Fuel	Original Forecast	Revised Forecast
Company's Generating Stations	\$148,359,504	\$160,055,752
Plus: Purchased Energy	\$224,480,219	\$212,741,108
Plus: MISO Charges	\$48,576,079	\$84,170,517
Less: MISO Schedules 16, 17 & 24	\$(289,240)	\$(261,937)
Less: Fuel Cost Recovered through Inter System Sales	\$154,774,719	\$161,604,379
Less: Costs Related to Solar	\$2,522,315	\$2,522,315
Plus: Time of Generation and Solar Energy Adjustment	\$1,344,170	\$1,344,170
Total Cost of Fuel	\$265,752,178	\$294,446,791
Total Fuel Clause Sales (GWh)	8,978.1	8,815.4
Average Cost of Fuel (¢/kWh)	2.961	3.349

Table 2: Sales Forecast Summary

2023 Forecasted Sales (GWh)	Original Forecast	Revised Forecast
Total Sales of Electricity	13,594,358	13,212,639
Residential	1,036,816	1,043,077
Commercial	1,195,779	1,232,760
LP Taconite	4,231,901	4,042,289
LP Paper and Pulp	600,104	600,104
LP Pipeline	309,481	309,481
Other Misc.	334,745	333,726
Municipals	1,326,588	1,311,330
Inter System Sales	4,558,944	4,339,872
Less: Inter System Sales	4,558,944	4,339,872
Customer Intersystem Sales	844,414	755,606
Market Sales	3,712,057	3,581,792
Station Service	2,473	2,473
Sales due to Retail Loss of Load	0	0
Less: Solar Generation & Purchases	57,323	57,323
Total Fuel Clause Sales	8,978,091	8,815,444

B. Fuel & Energy Source Procurement – Revised Attachment 2

When reviewing Attachment 2 to determine if any changes were needed as a result of updating the 2023 FPE Forecast, it was discovered there was an error in one of the

dates listed. The date was listed as 2021 and should have been 2022. This minor correction can be found in Revised Attachment 2.

C. MISO Costs – Revised Attachment 3

In the Revised Attachment 3 Minnesota Power provides an updated monthly allocation of MISO Costs. The main drivers for the increase in MISO costs includes: change in Locational Margin Price forecast, market purchases and Auction Revenue Rights (“ARR”).

Table 3: Average Market Price Comparison

\$/MWh	Original Forecast	Revised Forecast	Difference
	[TRADE SECRET DATA BEGINS		
Average Market Price (LMP)			
	TRADE SECRET DATA ENDS]		

D. Auction Revenue Rights – Revised Attachment 4

The Auction Revenue Rights (“ARR”) were updated to reflect what Minnesota Power has cleared in the annual auction. The updated ARR table can be found in Revised Attachment 4 and the associated values can be found in Revised Attachment 3.

E. Outage Costs – Revised Attachment 5

The fall outage for Boswell Unit 4 has been [TRADE SECRET DATA BEGINS
[REDACTED] TRADE SECRET DATA ENDS] planned outage. Table 4 shows the original planned outage schedule and Table 5 shows the revised planned outage schedule.

Table 4: Original Planned Outage Schedule

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

Table 5: Revised Planned Outage Schedule

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

In addition, Minnesota Power updated its Equivalent Unplanned Outage Factor (“EUOF”) to reflect more recent unit performance.

Table 6: Equivalent Unplanned Outage Factor

	Original Forecast EUOF	Revised Forecast EUOF
Boswell Unit 3	7.2%	7.55%
Boswell Unit 4	6.8%	8.39%

F. 5-Year Projection – Revised Attachment 6

Minnesota Power included a revised 5-Year Projection which reflects the updated 2023 FPE Forecast. There were no updates to years 2024 through 2027.

III. RESPONSES TO INITIAL COMMENTS

A. Outage Costs

In the Department’s Initial Comments they requested Minnesota Power address the differences between forecasted and actual Planned Outage incremental costs further in reply comments.

Department Table 9: Comparison of Forecast and Actual Planned Outage Incremental Costs		
Incremental Costs	2020	2021
Forecasted	\$3,441,487	(\$2,869,832)
Actual	(\$293,246)	\$6,415,192
Difference	\$3,734,733	(\$9,285,025)

The difference in the 2020 incremental costs is due to a major planned outage at Boswell Unit 4, which was originally planned for the spring of 2020, but was postponed until the spring of 2021. Due to the COVID-19 pandemic Minnesota Power implemented certain protocols at its facilities to minimize employee and community exposure. This movement allowed for additional time to plan for and mitigate the employee and community risk associated with executing the outage during a pandemic. In addition, Minnesota Power saw decreased LMPs in 2020 due to the pandemic which decreased the purchase price of replacement power. The average forecasted purchase price for 2020 was \$25.85 and actuals were \$18.03.¹ This decrease in actual purchase price lowered the incremental costs in 2020 compared to forecast.

For 2021, Minnesota anticipated the lower LMPs experienced in 2020 to continue through 2021. The average purchase price used in the 2021 forecast was \$19.98. However, during 2021 natural gas prices increased by approximately 95 percent compared to 2020, while power prices saw an even more dramatic impact, increasing by about 120 percent at MP.MP compared to 2020. With this drastic increase in prices, the actual average purchase price during outages in 2021 was \$32.45, which increased the incremental costs.

B. MISO Planning Resource Auction Revenues

In the Department's Initial Comments they recommended Minnesota Power provide in reply comments an estimate of Planning Resource Auction ("PRA") revenues and recalculated rates it expects to receive during its 2023 FPE Forecast period.

In Minnesota Power's revised 2023 FPE Forecast approximately \$3.8 million of PRA revenue was included for the January through May 2023 time period as a result of the known MISO PRA results. In the June through December 2023 time period Minnesota Power assumes no open capacity position; therefore, no PRA revenue was included in the revised 2023 FPE Forecast.

¹ In the Matter of Minnesota Power's Annual Automatic Adjustment of Charges Report in Docket No. E015/AA-19-302, Attachment 5.

IV. PROPOSED REVISED MONTHLY FPE FORECASTED RATES

Due to Minnesota Power's extension request it is anticipated a final Commission Order will be received after the 30-day rate notification deadline of December 1, 2022. Therefore, Minnesota Power will update the Company's website with the proposed revised FPE Forecasted rates by December 1, 2022, and will update its website with any changes ordered by the Commission. The rates will be presented at the following link: <https://www.mnpower.com/CustomerService/YourBill>

Minnesota Power will submit a compliance filing with a redlined and clean versions of the Fuel and Purchased Energy Rider Tariff sheets once rates have been approved by the Commission.

V. CONCLUSION

Minnesota Power appreciates this opportunity to refresh the 2023 FPE Forecast and respond to the Departments initial comments.

Dated: August 31, 2022

Respectfully submitted,



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PUBLIC DOCUMENT
TRADE SECRET DATA HAS BEEN EXCISED

A. Summary - Automatic Adjustment Charges:

Ref. No.	Revenue/Accounting Month Cost of Fuel	Jan 2023	Feb 2023	Mar 2023	Apr 2023	May 2023	Jun 2023	Jul 2023	Aug 2023	Sep 2023	Oct 2023	Nov 2023	Dec 2023	Total
1	Company's Generating Stations	\$16,460,888	\$14,127,694	\$13,769,751	\$10,989,703	\$13,359,972	\$13,301,773	\$16,522,668	\$16,440,329	\$11,975,579	\$5,898,091	\$12,580,392	\$14,628,913	\$160,055,752
	Thermal	\$16,460,888	\$14,127,694	\$13,769,751	\$10,989,703	\$13,359,972	\$13,301,773	\$16,522,668	\$16,440,329	\$11,975,579	\$5,898,091	\$12,580,392	\$14,628,913	\$160,055,752
	Wind	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	Hydro	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2	Plus: Purchased Energy	\$17,604,582	\$15,619,294	\$15,139,100	\$15,644,616	\$18,593,187	\$19,051,810	\$20,949,509	\$16,598,698	\$17,070,022	\$22,403,148	\$15,364,329	\$18,702,814	\$212,741,108
	Market	\$11,358,213	\$10,091,059	\$9,317,175	\$9,408,232	\$12,463,646	\$13,645,178	\$15,471,723	\$11,584,752	\$11,244,672	\$16,173,894	\$9,713,559	\$12,707,773	\$143,179,877
	Wind	\$2,936,361	\$2,425,285	\$2,783,696	\$2,835,653	\$2,768,992	\$2,132,920	\$1,874,777	\$1,871,069	\$2,452,304	\$2,822,303	\$2,818,623	\$2,706,977	\$30,428,960
	Solar	\$103,108	\$149,151	\$242,728	\$277,531	\$313,349	\$330,161	\$373,108	\$325,427	\$249,846	\$164,751	\$108,097	\$72,414	\$2,709,672
	Square Butte	\$3,206,900	\$2,953,800	\$2,795,500	\$3,123,200	\$3,047,200	\$2,943,550	\$3,229,900	\$2,817,450	\$3,123,200	\$3,242,200	\$2,724,050	\$3,215,650	\$36,422,600
3	Plus: MISO Charges 1/	\$7,336,042	\$5,780,737	\$4,696,467	\$3,952,852	\$4,223,292	\$10,092,937	\$9,422,378	\$8,600,173	\$11,349,765	\$5,767,042	\$6,806,022	\$6,142,812	\$84,170,517
4	Less: MISO Schedules 16 & 17 & 24 1/	(\$20,243)	(\$15,486)	(\$19,400)	(\$21,753)	(\$36,450)	(\$31,238)	(\$25,614)	(\$20,960)	(\$22,756)	(\$5,898)	(\$22,814)	(\$19,327)	(\$261,937)
	Schedule 16	\$104,039	\$107,757	\$104,770	\$102,494	\$89,702	\$95,009	\$99,803	\$103,937	\$102,885	\$116,320	\$102,308	\$105,415	\$1,234,439
	Schedule 17	\$17,719	\$18,757	\$17,830	\$17,754	\$15,848	\$15,754	\$16,583	\$17,103	\$16,358	\$19,783	\$16,877	\$17,258	\$207,624
	Schedule 24	(\$142,000)	(\$142,000)	(\$142,000)	(\$142,000)	(\$142,000)	(\$142,000)	(\$142,000)	(\$142,000)	(\$142,000)	(\$142,000)	(\$142,000)	(\$142,000)	(\$1,704,000)
5	Less: Costs Recovered Through Inter System Sales	\$17,066,114	\$12,957,018	\$12,162,597	\$10,816,414	\$16,237,543	\$14,812,705	\$16,264,884	\$13,961,569	\$12,331,299	\$8,755,273	\$12,074,861	\$14,164,102	\$161,604,379
	Customer Inter-System Sales	\$1,526,350	\$1,655,979	\$1,077,859	\$1,199,163	\$1,922,186	\$2,104,928	\$2,722,979	\$2,723,824	\$2,055,152	\$3,479,087	\$1,982,083	\$2,708,523	\$25,158,113
	Market Sales	\$8,643,704	\$6,213,106	\$7,170,932	\$7,281,992	\$10,153,745	\$8,017,303	\$9,082,025	\$7,335,272	\$6,943,885	\$4,126,937	\$6,515,182	\$6,662,482	\$88,146,565
	Station Service	\$4,760	\$4,760	\$4,760	\$10,144	\$4,760	\$4,760	\$4,760	\$4,760	\$4,760	\$28,987	\$4,760	\$4,760	\$86,734
	MISO Costs 1/	\$1,594,368	\$1,059,006	\$1,019,938	\$890,312	\$1,232,556	\$2,476,578	\$1,941,984	\$1,494,706	\$2,372,407	\$419,034	\$1,373,176	\$1,088,250	\$16,962,314
	Sales due to Retail Loss of Load	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	Asset Based Sale Margins	\$5,296,932	\$4,024,167	\$2,889,107	\$1,434,803	\$2,924,295	\$2,209,136	\$2,513,136	\$2,403,006	\$955,095	\$701,228	\$2,199,660	\$3,700,087	\$31,250,652
6	Less: Costs Related to Solar	\$95,071	\$137,751	\$226,369	\$258,208	\$291,803	\$308,444	\$347,857	\$303,767	\$233,124	\$153,642	\$100,749	\$65,529	\$2,522,315
7	Plus: Time of Generation and Solar Energy Adjustment	\$59,466	\$72,695	\$117,896	\$128,820	\$150,651	\$146,103	\$186,803	\$159,787	\$127,873	\$101,440	\$55,236	\$37,401	\$1,344,170
8	Total Monthly Cost of Fuel	\$24,320,036	\$22,521,137	\$21,353,646	\$19,663,121	\$19,834,207	\$27,502,709	\$30,494,230	\$27,554,612	\$27,981,571	\$25,266,704	\$22,653,183	\$25,301,635	\$294,446,791
MWh Sales														
9	Total Sales of Electricity	1,175,023	1,018,358	1,132,610	1,068,566	1,214,279	1,122,112	1,123,782	1,090,317	1,063,836	950,880	1,106,226	1,146,649	13,212,639
	Residential	117,198	99,041	94,232	80,967	73,772	67,858	83,280	77,836	73,563	75,559	87,556	112,215	1,043,077
	Commercial	108,618	102,513	108,868	92,208	94,346	97,724	108,533	112,429	102,928	95,383	96,188	113,022	1,232,760
	LP Taconite	345,573	313,183	344,929	328,940	339,996	326,235	342,016	339,439	331,415	334,543	345,793	350,227	4,042,289
	LP Paper and Pulp	51,260	46,855	51,157	49,662	50,547	49,419	51,090	51,106	49,173	49,847	49,197	50,791	600,104
	LP Pipeline	30,252	30,055	31,500	27,364	23,773	23,824	24,359	22,391	21,010	23,278	24,683	26,992	309,481
	Other Misc.	29,751	27,811	28,958	27,429	26,904	27,250	27,726	28,105	26,927	27,871	26,983	28,011	333,726
	Municipals	120,264	111,512	115,809	108,191	110,690	101,064	109,087	107,003	98,994	106,181	107,210	115,325	1,311,330
	Inter System Sales	372,107	287,388	357,157	353,805	494,251	428,738	377,691	352,008	359,826	238,218	368,616	350,066	4,339,872
10	Less: Inter System Sales	372,107	287,388	357,157	353,805	494,251	428,738	377,691	352,008	359,826	238,218	368,616	350,066	4,339,872
	Customer Inter-System Sales	39,826	39,767	35,493	41,016	75,387	77,637	84,031	83,294	57,142	77,589	68,936	75,488	755,606
	Market Sales	332,143	247,483	321,526	312,503	418,726	350,964	293,522	268,576	302,547	159,820	299,543	274,440	3,581,792
	Station Service	138	138	138	287	138	138	138	138	138	809	138	138	2,473
	Sales due to Retail Loss of Load	0	0	0	0	0	0	0	0	0	0	0	0	0
11	Less: Solar Generation and Purchased MWh	2,434	3,390	5,020	5,748	6,494	6,780	7,568	6,698	5,189	3,873	2,385	1,744	57,323
12	Total Monthly MWh Sales	800,482	727,580	770,433	709,013	713,534	686,594	738,523	731,611	698,821	708,789	735,225	794,839	8,815,444

Fuel Adjustment Charge Fuel Clause (¢/KWh)													Average	
13	1-Month Average Cost of Fuel (¢/KWh)	3.038	3.095	2.772	2.773	2.780	4.006	4.129	3.766	4.004	3.565	3.081	3.183	\$3.349

1 Month Average Cost of Fuel by Energy Type (¢/kWh)												
Billing Month:	Jan 23	Feb 23	Mar 23	Apr 23	May 23	Jun 23	Jul 23	Aug 23	Sep 23	Oct 23	Nov 23	Dec 23
17 Generation - Coal	0.884	1.046	0.931	0.785	0.632	0.761	0.978	1.049	0.915	0.545	0.850	0.966
18 Generation - Gas	0.019	0.000	0.000	0.000	0.000	0.000	0.024	0.041	0.000	0.000	0.000	0.000
19 Generation - BioFuel	0.269	0.325	0.110	0.066	0.100	0.163	0.199	0.215	0.109	0.050	0.071	0.270
20 Purchased Power - Coal	0.099	0.021	0.090	0.016	0.009	0.056	0.019	0.100	0.024	0.074	0.095	0.011
21 Purchased Power - Biomass	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
22 Purchased Power - Hydro	0.788	0.792	0.818	0.742	0.782	0.986	0.897	1.017	0.849	0.841	0.865	0.780
23 Purchased Power - Gas	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
24 Purchased Power - Wind	0.003	0.003	0.003	0.003	0.003	0.003	0.002	0.002	0.003	0.003	0.003	0.003
25 Purchased Power - Diesel	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
26 Purchased Power - Solar	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
27 Purchased Power - Unknown	0.977	0.908	0.819	1.162	1.254	2.037	2.009	1.342	2.104	2.052	1.198	1.153
28 Total One-Month Average Cost	3.038	3.095	2.772	2.773	2.780	4.006	4.129	3.766	4.004	3.565	3.081	3.183

NOTES

1/ See Attachment 3 for MISO Costs breakdown and Assumptions

Fuel Adjustment Clause 16 is applicable to all retail schedules except Competitive Rates, Industrial Economy, Excess Energy, Replacement Firm Power Service, Interruptible Power and Incremental Production Service. KWH Sales under Competitive Rate Schedules are not subject to the Fuel Clause but the Competitive Rate does recover the base cost of fuel.

Beginning November 1, 2009, with final rates, the company began applying the Fuel Adjustment Clause based (Fuel and Purchased Energy Adjustment) on Class Cost Factors for each different rate class such as Residential, General Service, Large Light and Power, Large Power, Municipal Pumping and Lighting

Thermal Generation													
Generation Coal	Jan 23	Feb 23	Mar 23	Apr 23	May 23	Jun 23	Jul 23	Aug 23	Sep 23	Oct 23	Nov 23	Dec 23	Total
Boswell 3	[TRADE SECRET DATA BEGINS]												
Average Cost													
Total Cost	\$ 5,436,805	\$ 4,990,397	\$ 5,485,261	\$ 4,378,640	\$ 5,375,462	\$ 5,153,349	\$ 5,301,469	\$ 5,289,302	\$ 4,265,059	\$ 5,270,980	\$ 5,113,125	\$ 5,290,878	\$ 61,350,726
Boswell 4	[TRADE SECRET DATA BEGINS]												
Average Cost													
Total Cost	\$ 7,620,899	\$ 6,765,737	\$ 7,432,272	\$ 6,142,774	\$ 7,264,297	\$ 6,984,689	\$ 7,166,375	\$ 7,158,647	\$ 6,919,702	\$ 253,058	\$ 6,925,995	\$ 7,168,995	\$ 77,803,440
Total Generation Coal \$	\$ 13,057,704	\$ 11,756,133	\$ 12,917,533	\$ 10,521,414	\$ 12,639,759	\$ 12,138,037	\$ 12,467,845	\$ 12,447,949	\$ 11,184,761	\$ 5,524,038	\$ 12,039,120	\$ 12,459,873	\$ 139,154,167
Generation Gas	[TRADE SECRET DATA BEGINS]												
Laskin 1	[TRADE SECRET DATA BEGINS]												
Average Cost													
Total Cost	\$ 692,917	\$	\$	\$	\$	\$	\$ 1,271,851	\$ 1,199,452	\$	\$	\$	\$	\$ 3,164,220
Laskin 2	[TRADE SECRET DATA BEGINS]												
Average Cost													
Total Cost	\$ 541,996	\$	\$	\$	\$	\$	\$ 1,272,294	\$ 1,187,628	\$	\$	\$	\$	\$ 3,001,918
Total Generation Gas \$	\$ 1,234,913	\$	\$	\$	\$	\$	\$ 2,544,145	\$ 2,387,080	\$	\$	\$	\$	\$ 6,166,138
Generation Biofuel	[TRADE SECRET DATA BEGINS]												
Hibbard 3	[TRADE SECRET DATA BEGINS]												
Average Cost													
Total Cost	\$ 1,207,209	\$ 1,131,302	\$ 852,218	\$ 468,290	\$ 720,214	\$ 681,963	\$ 721,799	\$ 774,214	\$ 460,726	\$ 337,711	\$ 387,845	\$ 1,211,895	\$ 8,955,386
Hibbard 4	[TRADE SECRET DATA BEGINS]												
Average Cost													
Total Cost	\$ 961,062	\$ 1,240,258	\$	\$	\$	\$ 481,773	\$ 788,879	\$ 831,086	\$ 330,092	\$ 36,341	\$ 153,426	\$ 957,144	\$ 5,780,062
Total Generation Biofuel \$	\$ 2,168,271	\$ 2,371,561	\$ 852,218	\$ 468,290	\$ 720,214	\$ 1,163,735	\$ 1,510,678	\$ 1,605,301	\$ 790,818	\$ 374,053	\$ 541,271	\$ 2,169,040	\$ 14,735,448
Total Thermal Generation \$	\$ 16,460,888	\$ 14,127,694	\$ 13,769,751	\$ 10,989,703	\$ 13,359,972	\$ 13,301,773	\$ 16,522,668	\$ 16,440,329	\$ 11,975,579	\$ 5,898,091	\$ 12,580,392	\$ 14,628,913	\$ 160,055,752
Wind Generation													
Generation	Jan 23	Feb 23	Mar 23	Apr 23	May 23	Jun 23	Jul 23	Aug 23	Sep 23	Oct 23	Nov 23	Dec 23	Total
Bison	[TRADE SECRET DATA BEGINS]												
Average Cost													
Total Cost	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
Tac Ridge	[TRADE SECRET DATA BEGINS]												
Average Cost													
Total Cost	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
Total Wind Generation \$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
Hydro Generation													
Generation	Jan 23	Feb 23	Mar 23	Apr 23	May 23	Jun 23	Jul 23	Aug 23	Sep 23	Oct 23	Nov 23	Dec 23	Total
Hydro	[TRADE SECRET DATA BEGINS]												
Average Cost													
Total Cost	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
Total Hydro Generation \$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
Total Company Generation	\$ 16,460,888	\$ 14,127,694	\$ 13,769,751	\$ 10,989,703	\$ 13,359,972	\$ 13,301,773	\$ 16,522,668	\$ 16,440,329	\$ 11,975,579	\$ 5,898,091	\$ 12,580,392	\$ 14,628,913	\$ 160,055,752

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	Revised 2023 Forecast	Original 2023 Forecast	Difference	Explanation
	Total	Total		
Generation Coal				
Boswell 3 MWh Average Cost	[TRADE SECRET DATA BEGINS]			Higher MISO LMP outlook than originally forecasted which increased company generation needed to serve load
	[TRADE SECRET DATA ENDS]			
Total Cost	\$ 61,350,726	\$ 62,104,926	\$ (754,200)	With Boswell projected to run more, the heat rate has been updated to be more efficient which lowers the average fuel
Boswell 4 MWh Average Cost	[TRADE SECRET DATA BEGINS]			Higher MISO LMP outlook than originally forecasted which increased company generation needed to serve load
	[TRADE SECRET DATA ENDS]			
Total Cost	\$ 77,803,440	\$ 80,020,521	\$ (2,217,081)	With Boswell projected to run more, the heat rate has been updated to be more efficient which lowers the average fuel
Total Generation Coal \$	\$ 139,154,167	\$ 142,125,447	\$ (2,971,280)	
Generation Gas				
Laskin 1 MWh Average Cost	[TRADE SECRET DATA BEGINS]			Higher MISO LMP outlook than originally forecasted which increased company generation needed to serve load
	[TRADE SECRET DATA ENDS]			
Total Cost	\$ 3,164,220	\$ 314,420	\$ 2,849,800	More generation and higher fuel cost outlook for Natural Gas than originally forecasted
Laskin 2 MWh Average Cost	[TRADE SECRET DATA BEGINS]			Higher MISO LMP outlook than originally forecasted which increased company generation needed to serve load
	[TRADE SECRET DATA ENDS]			
Total Cost	\$ 3,001,918	\$ 314,420	\$ 2,687,497	More generation and higher fuel cost outlook for Natural Gas than originally forecasted
Total Generation Gas \$	\$ 6,166,138	\$ 628,840	\$ 5,537,297	
Generation Biofuel				
Hibbard 3 MWh Average Cost	[TRADE SECRET DATA BEGINS]			Higher MISO LMP outlook than originally forecasted which increased company generation needed to serve load
	[TRADE SECRET DATA ENDS]			
Total Cost	\$ 8,955,386	\$ 2,466,844	\$ 6,488,542	Higher fuel cost projected than originally forecasted
Hibbard 4 MWh Average Cost	[TRADE SECRET DATA BEGINS]			Higher MISO LMP outlook than originally forecasted which increased company generation needed to serve load
	[TRADE SECRET DATA ENDS]			
Total Cost	\$ 5,780,062	\$ 3,138,373	\$ 2,641,689	Higher fuel cost projected than originally forecasted
Total Generation Biofuel \$	\$ 14,735,448	\$ 5,605,217	\$ 9,130,231	
Total Thermal Generation \$	\$ 160,055,752	\$ 148,359,504	\$ 11,696,248	

	Revised 2023 Forecast	Original 2023 Forecast	Difference	Explanation
	Total	Total		
Bison MWh Average Cost	[TRADE SECRET DATA BEGINS]			No Change
	[TRADE SECRET DATA ENDS]			
Total Cost	\$	\$	\$	No Change
Tac Ridge MWh Average Cost	[TRADE SECRET DATA BEGINS]			No Change
	[TRADE SECRET DATA ENDS]			
Total Cost	\$	\$	\$	No Change
Total Wind Generation \$	\$	\$	\$	

	Revised 2023 Forecast	Original 2023 Forecast	Difference	Explanation
	Total	Total		
Hydro MWh Average Cost	[TRADE SECRET DATA BEGINS]			Lower generation due to updated unit availability and outages projected in 2023
	[TRADE SECRET DATA ENDS]			
Total Cost	\$	\$	\$	No Change
Total Hydro Generation \$	\$	\$	\$	

	Revised 2023 Forecast	Original 2023 Forecast	Difference
	Total	Total	
Total Company Generation	\$ 160,055,752	\$ 148,359,504	\$ 11,696,248

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Purchase Power Market																										
	Jan 23	Feb 23	Mar 23	Apr 23	May 23	Jun 23	Jul 23	Aug 23	Sep 23	Oct 23	Nov 23	Dec 23	Total													
Manitoba Hydro	TRADE SECRET DATA BEGINS																									
	MWH																									
	Average Cost																									
Total Cost	\$	8,690,228	\$	7,769,453	\$	8,230,257	\$	7,850,979	\$	11,874,599	\$	13,188,178	\$	13,897,836	\$	9,481,747	\$	8,688,370	\$	9,014,047	\$	8,710,550	\$	9,097,881	\$	116,494,125
Market Purchase	TRADE SECRET DATA BEGINS																									
	MWH																									
	Average Cost																									
Total Cost	\$	2,622,903	\$	2,276,524	\$	1,041,837	\$	1,512,172	\$	543,965	\$	411,918	\$	1,528,806	\$	2,057,923	\$	2,511,220	\$	7,114,766	\$	957,927	\$	3,564,810	\$	26,144,770
Minnkota Power Station Service	TRADE SECRET DATA BEGINS																									
	MWH																									
	Average Cost																									
Total Cost	\$	45,082	\$	45,082	\$	45,082	\$	45,082	\$	45,082	\$	45,082	\$	45,082	\$	45,082	\$	45,082	\$	45,082	\$	45,082	\$	45,082	\$	540,981
Purchase to Serve Non Firm Retail Customer	TRADE SECRET DATA BEGINS																									
	MWH																									
	Average Cost																									
Total Cost	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	
Total Purchase Power Market \$	\$	11,358,213	\$	10,091,059	\$	9,317,175	\$	9,408,232	\$	12,463,646	\$	13,645,178	\$	15,471,723	\$	11,584,752	\$	11,244,672	\$	16,173,894	\$	9,713,559	\$	12,707,773	\$	143,179,877

Purchase Power Wind														
		Jan 23	Feb 23	Mar 23	Apr 23	May 23	Jun 23	Jul 23	Aug 23	Sep 23	Oct 23	Nov 23	Dec 23	Total
Oliver 1		TRADE SECRET DATA BEGINS												
	MWH													
	Average Cost													
	Total Cost	\$ 399,363	\$ 283,286	\$ 348,180	\$ 330,585	\$ 335,319	\$ 263,136	\$ 250,592	\$ 258,761	\$ 319,305	\$ 366,574	\$ 376,188		TRADE SECRET DATA ENDS
														329,672 \$ 3,860,961
Oliver 2		TRADE SECRET DATA BEGINS												
	MWH													
	Average Cost													
	Total Cost	\$ 686,401	\$ 492,549	\$ 598,690	\$ 566,432	\$ 562,736	\$ 434,799	\$ 401,598	\$ 427,944	\$ 533,775	\$ 629,355	\$ 614,053		TRADE SECRET DATA ENDS
														580,725 \$ 6,529,057
Wing River		TRADE SECRET DATA BEGINS												
	MWH													
	Average Cost													
	Total Cost	\$ 23,071	\$ 20,032	\$ 22,283	\$ 24,476	\$ 23,478	\$ 17,175	\$ 15,177	\$ 14,183	\$ 20,620	\$ 23,532	\$ 23,999		TRADE SECRET DATA ENDS
														22,703 \$ 250,729
Nobles		TRADE SECRET DATA BEGINS												
	MWH													
	Average Cost													
	Total Cost	\$ 1,827,526	\$ 1,629,418	\$ 1,814,543	\$ 1,914,160	\$ 1,847,458	\$ 1,417,810	\$ 1,207,410	\$ 1,170,182	\$ 1,578,604	\$ 1,802,843	\$ 1,804,382		TRADE SECRET DATA ENDS
														1,773,876 \$ 19,788,212
Total Purchase Power Wind \$		\$ 2,936,361	\$ 2,425,285	\$ 2,783,696	\$ 2,835,653	\$ 2,768,992	\$ 2,132,920	\$ 1,874,777	\$ 1,871,069	\$ 2,452,304	\$ 2,822,303	\$ 2,818,623	\$ 2,706,977	\$ 30,428,960

Purchase Power Solar														
	Jan 23	Feb 23	Mar 23	Apr 23	May 23	Jun 23	Jul 23	Aug 23	Sep 23	Oct 23	Nov 23	Dec 23	Total	
SES 20MW Solar	TRADE SECRET DATA BEGINS													
	MWH													
	Average Cost													
Total Cost	\$ 95,071	\$ 137,751	\$ 226,369	\$ 258,208	\$ 291,803	\$ 308,444	\$ 347,857	\$ 303,767	\$ 233,124	\$ 153,642	\$ 100,749	TRADE SECRET DATA ENDS	65,529	\$ 2,522,315
Purchase to Serve Municipal Solar Energy	TRADE SECRET DATA BEGINS													
	MWH													
	Average Cost													
Total Cost	\$ 8,037	\$ 11,400	\$ 16,359	\$ 19,323	\$ 21,546	\$ 21,717	\$ 25,251	\$ 21,660	\$ 16,722	\$ 11,109	\$ 7,348	TRADE SECRET DATA ENDS	6,885	\$ 187,357
Total Purchase Power Solar \$	\$ 103,108	\$ 149,151	\$ 242,728	\$ 277,531	\$ 313,349	\$ 330,161	\$ 373,108	\$ 325,427	\$ 249,846	\$ 164,751	\$ 108,097	\$ 72,414	\$ 2,709,672	

Purchase Power- Square Butte																										
	Jan 23	Feb 23	Mar 23	Apr 23	May 23	Jun 23	Jul 23	Aug 23	Sep 23	Oct 23	Nov 23	Dec 23	Total													
Square Butte	TRADE SECRET DATA BEGINS																									
	MWH																									
	Average Cost																									
Total Cost	\$	3,206,900	\$	2,953,800	\$	2,795,500	\$	3,123,200	\$	3,047,200	\$	2,943,550	\$	3,229,900	\$	2,817,450	\$	3,123,200	\$	3,242,200	\$	2,724,050	\$	3,215,650	\$	36,422,600
TRADE SECRET DATA BEGINS																										
Total Purchase Power Coal	\$	3,206,900	\$	2,953,800	\$	2,795,500	\$	3,123,200	\$	3,047,200	\$	2,943,550	\$	3,229,900	\$	2,817,450	\$	3,123,200	\$	3,242,200	\$	2,724,050	\$	3,215,650	\$	36,422,600

	Jan 23	Feb 23	Mar 23	Apr 23	May 23	Jun 23	Jul 23	Aug 23	Sep 23	Oct 23	Nov 23	Dec 23	Total
Total Company Purchase Power	\$ 17,604,582	\$ 15,619,294	\$ 15,139,100	\$ 15,644,616	\$ 18,593,187	\$ 19,051,810	\$ 20,949,509	\$ 16,598,698	\$ 17,070,022	\$ 22,403,148	\$ 15,364,329	\$ 18,702,814	\$ 212,741,108

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	Revised 2023 Forecast	Original 2023 Forecast	Difference	Explanation
	Total	Total		
Manitoba Hydro MWH Average Cost	[TRADE SECRET DATA BEGINS]			No Change
	[TRADE SECRET DATA ENDS]			
Total Cost	\$ 116,494,125	\$ 102,592,028	\$ 13,901,297	Higher MISO LMP outlook than originally forecasted which increases the price of this contract
Market Purchase MWH Average Cost	[TRADE SECRET DATA BEGINS]			Higher MISO LMP outlook than originally forecasted which decreased Market Purchases and increases MP generation
	[TRADE SECRET DATA ENDS]			
Total Cost	\$ 26,144,770	\$ 30,027,034	\$ (3,882,263)	Lower MWh Market Purchases but higher \$/MWh with the higher MISO LMP outlook
Minnkota Power Station Service MWH Average Cost	[TRADE SECRET DATA BEGINS]			No Change
	[TRADE SECRET DATA ENDS]			
Total Cost	\$ 540,981	\$ 540,981	\$	No Change
Purchase to Serve Non Firm Retail Customer MWH Average Cost	[TRADE SECRET DATA BEGINS]			Decision was made to serve Non-Firm Retail load from MP system instead of a purchase
	[TRADE SECRET DATA ENDS]			
Total Cost	\$	\$ 21,322,193	\$ (21,322,193)	Decision was made to serve Non-Firm Retail load from MP system instead of a purchase
Total Purchase Power Market \$	\$ 143,179,877	\$ 154,483,036	\$ (11,303,159)	

	Revised 2023 Forecast	Original 2023 Forecast	Difference	Explanation
	Total	Total		
Oliver 1 MWH Average Cost	[TRADE SECRET DATA BEGINS]			No Change
	[TRADE SECRET DATA ENDS]			
Total Cost	\$ 3,860,961	\$ 3,860,961	\$	No Change
Oliver 2 MWH Average Cost	[TRADE SECRET DATA BEGINS]			No Change
	[TRADE SECRET DATA ENDS]			
Total Cost	\$ 6,529,057	\$ 6,529,057	\$	No Change
Wing River MWH Average Cost	[TRADE SECRET DATA BEGINS]			No Change
	[TRADE SECRET DATA ENDS]			
Total Cost	\$ 250,729	\$ 250,729	\$	No Change
Nobles MWH Average Cost	[TRADE SECRET DATA BEGINS]			No Change
	[TRADE SECRET DATA ENDS]			
Total Cost	\$ 19,788,212	\$ 19,788,212	\$	No Change
Total Purchase Power Wind \$	\$ 30,428,960	\$ 30,428,960	\$	

	Revised 2023 Forecast	Original 2023 Forecast	Difference	Explanation
	Total	Total		
SES 20MW Solar MWH Average Cost	[TRADE SECRET DATA BEGINS]			No Change
	[TRADE SECRET DATA ENDS]			
Total Cost	\$ 2,522,315	\$ 2,522,315	\$	No Change
Purchase to Serve Municipal Solar Energy MWH Average Cost	[TRADE SECRET DATA BEGINS]			No Change
	[TRADE SECRET DATA ENDS]			
Total Cost	\$ 187,357	\$ 189,009	\$ (1,652)	Update to Commerical Operations Date which updated the rate change
Total Purchase Power Solar \$	\$ 2,709,672	\$ 2,711,324	\$ (1,652)	

	Revised 2023 Forecast	Original 2023 Forecast	Difference	Explanation
	Total	Total		
Square Butte MWH Average Cost	[TRADE SECRET DATA BEGINS]			Higher MISO LMP outlook than originally forecasted which increased generation needed to serve load
	[TRADE SECRET DATA ENDS]			
Total Cost	\$ 36,422,600	\$ 36,856,900	\$ (434,300)	Updated fuel assumptions based on market updates since the original FAC Forecast was submitted
Total Purchase Power Coal \$	\$ 36,422,600	\$ 36,856,900	\$ (434,300)	

	Revised 2023 Forecast	Original 2023 Forecast	Difference
	Total	Total	
Total Company Purchase Power	\$ 212,741,108	\$ 224,480,219	\$ (11,739,111)

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Attachment 1
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Purchase Power Coal													
	Jan 23	Feb 23	Mar 23	Apr 23	May 23	Jun 23	Jul 23	Aug 23	Sep 23	Oct 23	Nov 23	Dec 23	total
Square Butte	RADE SECRE DA A BEGINS												
MWH Average Cost													
total Cost	\$ 3 206 900	\$ 2 953 800	\$ 2 795 500	\$ 3 123 200	\$ 3 047 200	\$ 2 943 950	\$ 3 229 900	\$ 2 817 450	\$ 3 123 200	\$ 3 242 200	\$ 2 724 050	\$ 3 215 650	\$ 36 422 600
total Purchase Power Coal \$	\$ 3 206 900	\$ 2 953 800	\$ 2 795 500	\$ 3 123 200	\$ 3 047 200	\$ 2 943 950	\$ 3 229 900	\$ 2 817 450	\$ 3 123 200	\$ 3 242 200	\$ 2 724 050	\$ 3 215 650	\$ 36 422 600
Purchase Power Biomass													
	Jan 23	Feb 23	Mar 23	Apr 23	May 23	Jun 23	Jul 23	Aug 23	Sep 23	Oct 23	Nov 23	Dec 23	total
	RADE SECRE DA A BEGINS												
MWH Average Cost													
total Cost	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	RADE SECRE DA A ENDS)
total Purchase Power Biomass \$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
Purchase Power Hydro													
	Jan 23	Feb 23	Mar 23	Apr 23	May 23	Jun 23	Jul 23	Aug 23	Sep 23	Oct 23	Nov 23	Dec 23	total
MHEB	RADE SECRE DA A BEGINS												
MWH Average Cost													
total Cost	\$ 8 690 228	\$ 7 769 453	\$ 8 230 257	\$ 7 850 979	\$ 11 874 599	\$ 13 188 178	\$ 13 897 836	\$ 9 481 747	\$ 8 688 370	\$ 9 014 047	\$ 8 710 550	\$ 9 097 881	\$ 116 494 125
total Purchase Power Hydro \$	\$ 8 690 228	\$ 7 769 453	\$ 8 230 257	\$ 7 850 979	\$ 11 874 599	\$ 13 188 178	\$ 13 897 836	\$ 9 481 747	\$ 8 688 370	\$ 9 014 047	\$ 8 710 550	\$ 9 097 881	\$ 116 494 125
Purchase Power Gas													
	Jan 23	Feb 23	Mar 23	Apr 23	May 23	Jun 23	Jul 23	Aug 23	Sep 23	Oct 23	Nov 23	Dec 23	total
	RADE SECRE DA A BEGINS												
MWH Average Cost													
total Cost	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	RADE SECRE DA A ENDS)
total Purchase Power Gas \$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
Purchase Power Wind													
	Jan 23	Feb 23	Mar 23	Apr 23	May 23	Jun 23	Jul 23	Aug 23	Sep 23	Oct 23	Nov 23	Dec 23	total
Oliver 1	RADE SECRE DA A BEGINS												
MWH Average Cost													
total Cost	\$ 399 363	\$ 283 286	\$ 348 180	\$ 330 585	\$ 335 319	\$ 263 136	\$ 250 592	\$ 258 761	\$ 319 305	\$ 366 574	\$ 376 188	\$ 329 672	\$ 3 860 961
Oliver 2	RADE SECRE DA A BEGINS												
MWH Average Cost													
total Cost	\$ 686 401	\$ 492 549	\$ 598 690	\$ 566 432	\$ 562 736	\$ 434 799	\$ 401 598	\$ 427 944	\$ 533 775	\$ 629 355	\$ 614 053	\$ 580 725	\$ 6 529 057
Wing River	RADE SECRE DA A BEGINS												
MWH Average Cost													
total Cost	\$ 23 071	\$ 20 032	\$ 22 283	\$ 24 476	\$ 23 478	\$ 17 175	\$ 15 177	\$ 14 183	\$ 20 620	\$ 23 532	\$ 23 999	\$ 22 703	\$ 250 729
Nobles	RADE SECRE DA A BEGINS												
MWH Average Cost													
total Cost	\$ 1 827 526	\$ 1 629 438	\$ 1 814 543	\$ 1 914 160	\$ 1 847 458	\$ 1 417 810	\$ 1 207 430	\$ 1 170 182	\$ 1 578 604	\$ 1 802 843	\$ 1 804 382	\$ 1 773 876	\$ 19 788 212
total Purchase Power Wind \$	\$ 2 936 361	\$ 2 425 285	\$ 2 783 696	\$ 2 835 653	\$ 2 769 992	\$ 2 132 920	\$ 1 874 777	\$ 1 871 069	\$ 2 452 304	\$ 2 822 303	\$ 2 818 623	\$ 2 706 977	\$ 30 428 960
Purchase Power Diesel													
	Jan 23	Feb 23	Mar 23	Apr 23	May 23	Jun 23	Jul 23	Aug 23	Sep 23	Oct 23	Nov 23	Dec 23	total
	RADE SECRE DA A BEGINS												
MWH Average Cost													
total Cost	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	RADE SECRE DA A ENDS)
total Purchase Power Diesel \$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
Purchase Power Solar													
	Jan 23	Feb 23	Mar 23	Apr 23	May 23	Jun 23	Jul 23	Aug 23	Sep 23	Oct 23	Nov 23	Dec 23	total
SES 20MW Solar	RADE SECRE DA A BEGINS												
MWH Average Cost													
total Cost	\$ 95 071	\$ 137 751	\$ 226 369	\$ 258 208	\$ 291 803	\$ 308 444	\$ 347 857	\$ 303 767	\$ 233 124	\$ 153 642	\$ 100 749	\$ 65 509	\$ 2 302 315
Purchase to Serve Municipal Solar Energy	RADE SECRE DA A BEGINS												
MWH Average Cost													
total Cost	\$ 8 037	\$ 11 400	\$ 16 359	\$ 19 323	\$ 21 546	\$ 21 717	\$ 25 251	\$ 21 660	\$ 16 722	\$ 11 109	\$ 7 348	\$ 6 885	\$ 187 357
total Purchase Power Solar \$	\$ 103 108	\$ 149 151	\$ 242 728	\$ 277 531	\$ 313 349	\$ 330 161	\$ 373 108	\$ 325 427	\$ 249 846	\$ 164 751	\$ 108 097	\$ 72 414	\$ 2 709 672
Purchase Power Unknown													
	Jan 23	Feb 23	Mar 23	Apr 23	May 23	Jun 23	Jul 23	Aug 23	Sep 23	Oct 23	Nov 23	Dec 23	total
Market Purchase	RADE SECRE DA A BEGINS												
MWH Average Cost													
total Cost	\$ 2 622 903	\$ 2 276 524	\$ 1 041 837	\$ 1 512 172	\$ 543 965	\$ 411 818	\$ 1 528 806	\$ 2 057 923	\$ 2 511 220	\$ 7 114 766	\$ 967 827	\$ 3 964 810	\$ 26 544 778
MPC Station Service	RADE SECRE DA A BEGINS												
MWH Average Cost													
total Cost	\$ 45 082	\$ 45 082	\$ 45 082	\$ 45 082	\$ 45 082	\$ 45 082	\$ 45 082	\$ 45 082	\$ 45 082	\$ 45 082	\$ 45 082	\$ 45 082	\$ 546 981
Purchase to Serve Non Firm Retail Customer	RADE SECRE DA A BEGINS												
MWH Average Cost													
total Cost	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	RADE SECRE DA A ENDS)
total Purchase Power Unknown \$	\$ 2 667 985	\$ 2 321 606	\$ 1 086 918	\$ 1 557 253	\$ 589 046	\$ 457 000	\$ 1 573 888	\$ 2 103 005	\$ 2 556 302	\$ 7 159 847	\$ 1 003 008	\$ 3 609 892	\$ 26 685 751
total Company Purchase Power	\$ 17 684 982	\$ 15 619 254	\$ 15 139 100	\$ 15 644 616	\$ 18 593 187	\$ 18 051 810	\$ 20 948 506	\$ 18 568 696	\$ 17 070 022	\$ 22 403 148	\$ 15 364 329	\$ 18 782 814	\$ 212 743 108

Inter System Sales Customer Sales														
	Jan 23	Feb 23	Mar 23	Apr 23	May 23	Jun 23	Jul 23	Aug 23	Sep 23	Oct 23	Nov 23	Dec 23	total	
Incremental Product Service and RFPs	RADE SECRE DA A BEGINS													
Average Fuel Cost	RADE SECRE DA A BEGINS													
o al Fuel Cost	\$ 167 674	\$ 129 998	\$ 123 203	\$ 111 010	\$ 96 297	\$ 123 743	\$ 147 014	\$ 143 772	\$ 147 187	\$ 179 101	\$ 111 051	\$ 160 409	\$ 1 631 057	
Economy and Non Firm Energy	RADE SECRE DA A BEGINS													
Average Fuel Cost	RADE SECRE DA A BEGINS													
o al Fuel Cost	\$ 639 630	\$ 788 733	\$ 552 285	\$ 798 615	\$ 1 610 212	\$ 1 626 494	\$ 2 028 021	\$ 2 108 204	\$ 1 572 077	\$ 2 812 509	\$ 1 458 911	\$ 1 904 358	\$ 17 900 049	
Municipal Incremental	RADE SECRE DA A BEGINS													
Average Fuel Cost	RADE SECRE DA A BEGINS													
o al Fuel Cost	\$ 711 009	\$ 735 247	\$ 386 013	\$ 270 215	\$ 194 131	\$ 332 974	\$ 522 693	\$ 450 189	\$ 319 167	\$ 476 368	\$ 404 772	\$ 594 871	\$ 5 439 650	
Municipal Solar Energov	RADE SECRE DA A BEGINS													
Average Fuel Cost	RADE SECRE DA A BEGINS													
o al Fuel Cost	\$ 8 037	\$ 11 400	\$ 16 359	\$ 19 323	\$ 21 546	\$ 21 717	\$ 25 251	\$ 21 660	\$ 16 722	\$ 11 109	\$ 7 348	\$ 6 885	\$ 187 367	
total Inter System Sales Customer (MWhs)	39 826	39 767	35 493	41 016	75 387	77 637	84 031	83 294	57 142	77 589	68 536	75 488	756 606	
total Inter System Sales Customer (Dollars)	\$ 1 526 360	\$ 1 655 979	\$ 1 077 809	\$ 1 199 163	\$ 1 922 186	\$ 2 104 928	\$ 2 722 979	\$ 2 723 824	\$ 2 055 152	\$ 3 479 087	\$ 1 982 083	\$ 2 708 523	\$ 25 158 113	
Inter System Sales Market Sales														
	Jan 23	Feb 23	Mar 23	Apr 23	May 23	Jun 23	Jul 23	Aug 23	Sep 23	Oct 23	Nov 23	Dec 23	total	
Oconto	RADE SECRE DA A BEGINS													
Average Fuel Cost	RADE SECRE DA A BEGINS													
o al Fuel Cost	\$ 284 169	\$ 253 102	\$ 240 572	\$ 199 241	\$ 188 728	\$ 200 768	\$ 242 750	\$ 228 586	\$ 191 487	\$ 198 028	\$ 231 253	\$ 269 785	\$ 2 738 469	
Hibbing Public Utilities	RADE SECRE DA A BEGINS													
Average Fuel Cost	RADE SECRE DA A BEGINS													
o al Fuel Cost	\$ 106 441	\$ 94 435	\$ 103 710	\$ 99 600	\$ 101 634	\$ 97 711	\$ 100 480	\$ 100 004	\$ 96 847	\$ 98 362	\$ 96 652	\$ 100 036	\$ 1 195 913	
Asset Based Sales (Non MISO)	RADE SECRE DA A BEGINS													
Average Fuel Cost	RADE SECRE DA A BEGINS													
o al Fuel Cost	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	
Liquidated Sales (Non MISO)	RADE SECRE DA A BEGINS													
Average Fuel Cost	RADE SECRE DA A BEGINS													
o al Fuel Cost	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	
MISO Market Sales	RADE SECRE DA A BEGINS													
Average Fuel Cost	RADE SECRE DA A BEGINS													
o al Fuel Cost	\$ 5 881 968	\$ 3 690 791	\$ 4 768 425	\$ 4 683 651	\$ 7 619 839	\$ 5 551 593	\$ 6 360 735	\$ 4 932 295	\$ 4 356 052	\$ 1 443 432	\$ 4 181 657	\$ 3 925 084	\$ 57 395 533	
Minnesota Power Liquidation	RADE SECRE DA A BEGINS													
Average Fuel Cost	RADE SECRE DA A BEGINS													
o al Fuel Cost	\$ 2 361 125	\$ 2 174 777	\$ 2 058 226	\$ 2 299 500	\$ 2 243 544	\$ 2 167 230	\$ 2 378 059	\$ 2 074 387	\$ 2 299 500	\$ 2 387 115	\$ 2 005 620	\$ 2 367 567	\$ 26 816 648	
total Inter System Sales Market (MWhs)	332 143	247 483	321 526	312 503	418 726	350 964	293 522	268 576	302 847	159 620	209 943	274 440	3 581 792	
total Inter System Sales Market (Dollars)	\$ 8 643 704	\$ 6 213 106	\$ 7 170 932	\$ 7 281 992	\$ 10 153 745	\$ 8 017 303	\$ 9 082 025	\$ 7 335 272	\$ 6 943 885	\$ 4 126 937	\$ 6 515 182	\$ 6 662 482	\$ 88 146 565	
Inter System Sales Station Service														
	Jan 23	Feb 23	Mar 23	Apr 23	May 23	Jun 23	Jul 23	Aug 23	Sep 23	Oct 23	Nov 23	Dec 23	total	
Oliver 1	RADE SECRE DA A BEGINS													
Average Fuel Cost	RADE SECRE DA A BEGINS													
o al Fuel Cost	\$ 762	\$ 762	\$ 762	\$ 762	\$ 762	\$ 762	\$ 762	\$ 762	\$ 762	\$ 762	\$ 762	\$ 762	\$ 9 346	
Oliver 2	RADE SECRE DA A BEGINS													
Average Fuel Cost	RADE SECRE DA A BEGINS													
o al Fuel Cost	\$ 672	\$ 672	\$ 672	\$ 672	\$ 672	\$ 672	\$ 672	\$ 672	\$ 672	\$ 672	\$ 672	\$ 672	\$ 8 063	
WPPI	RADE SECRE DA A BEGINS													
Average Fuel Cost	RADE SECRE DA A BEGINS													
o al Fuel Cost	\$ 3 326	\$ 3 326	\$ 3 326	\$ 8 710	\$ 3 326	\$ 3 326	\$ 3 326	\$ 3 326	\$ 3 326	\$ 27 553	\$ 3 326	\$ 3 326	\$ 69 526	
total Inter System Sales Station Service (MWhs)	138	138	138	287	138	138	138	138	138	809	138	138	2 475	
total Inter System Sales Station Service (Dollars)	\$ 4 760	\$ 4 760	\$ 4 760	\$ 10 144	\$ 4 760	\$ 4 760	\$ 4 760	\$ 4 760	\$ 4 760	\$ 28 987	\$ 4 760	\$ 4 760	\$ 86 734	
Inter System Sales MISO Costs														
	Jan 23	Feb 23	Mar 23	Apr 23	May 23	Jun 23	Jul 23	Aug 23	Sep 23	Oct 23	Nov 23	Dec 23	total	
MISO Recovered thru Market Sales	total Cost	\$ 1 594 368	\$ 1 059 006	\$ 1 019 938	\$ 890 312	\$ 1 232 556	\$ 2 476 578	\$ 1 941 984	\$ 1 494 706	\$ 2 372 407	\$ 419 034	\$ 1 373 176	\$ 1 088 250	\$ 16 962 314
total Inter System Sales MISO Costs (Dollars)	\$	\$ 1 594 368	\$ 1 059 006	\$ 1 019 938	\$ 890 312	\$ 1 232 556	\$ 2 476 578	\$ 1 941 984	\$ 1 494 706	\$ 2 372 407	\$ 419 034	\$ 1 373 176	\$ 1 088 250	\$ 16 962 314
Inter System Sales Sales due to Retail Loss of Load														
	Jan 23	Feb 23	Mar 23	Apr 23	May 23	Jun 23	Jul 23	Aug 23	Sep 23	Oct 23	Nov 23	Dec 23	total	
Sales due to Retail Loss of Load	RADE SECRE DA A BEGINS													
Average Fuel Cost	RADE SECRE DA A BEGINS													
o al 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 23	Feb 23	Mar 23	Apr 23	May 23	Jun 23	Jul 23	Aug 23	Sep 23	Oct 23	Nov 23	Dec 23	total	
Asset Based Sales Margins	total Margins	\$ 5 296 932	\$ 4 024 167	\$ 2 889 107	\$ 1 434 803	\$ 2 924 295	\$ 2 209 136	\$ 2 513 136	\$ 2 403 006	\$ 955 095	\$ 701 228	\$ 2 199 660	\$ 3 700 087	\$ 31 250 652
total Inter System Sales MISO Costs (Dollars)	\$	\$ 5 296 932	\$ 4 024 167	\$ 2 889 107	\$ 1 434 803	\$ 2 924 295	\$ 2 209 136	\$ 2 513 136	\$ 2 403 006	\$ 955 095	\$ 701 228	\$ 2 199 660	\$ 3 700 087	\$ 31 250 652
Inter System Sales Sales														
	Jan 23	Feb 23	Mar 23	Apr 23	May 23	Jun 23	Jul 23	Aug 23	Sep 23	Oct 23	Nov 23	Dec 23	total	
total Company Inter System Sales MWhs	372 107	287 388	357 157	363 805	884 251	420 738	377 691	362 008	369 826	238 218	368 616	350 066	4 339 872	
total Company Inter System Sales Dollars	\$ 17 066 114	\$ 12 967 018	\$ 12 163 987	\$ 10 816 414	\$ 16 237 543	\$ 14 812 705	\$ 16 264 884	\$ 13 951 569	\$ 12 331 299	\$ 8 795 273	\$ 12 074 861	\$ 14 164 102	\$ 161 604 379	

PUBLIC DOCUMENT
TRADE SECRET DATA HAS BEEN EXCISED

Attachment 1
Page 8 of 9

	Revised 2023 Forecast	Original 2023 Forecast	Difference	Explanation
	total	total		
Incremental Product Service and RFPs	RADE SECRE DA A BEGINS	RADE SECRE DA A BEGINS		Updated customer business plans since original 2023 FAC Forecast was submitted
Average Fuel Cost				
o al Fuel Cost	\$ 1 631 057	\$ 1 576 877	\$ 54 180	Higher MISO LMP outlook than originally forecasted and higher or cost company generation serving sale
Economy and Non Firm Energy	RADE SECRE DA A BEGINS	RADE SECRE DA A BEGINS		Updated customer business plans since original 2023 FAC Forecast was submitted
Average Fuel Cost				
o al Fuel Cost	\$ 17 900 049	\$ 24 451 795	\$ (6 951 738)	More company generation serving sales instead of market purchases which would lower the fuel cost
Municipal Incremental	RADE SECRE DA A BEGINS	RADE SECRE DA A BEGINS		No Change
Average Fuel Cost				
o al Fuel Cost	\$ 5 439 650	\$ 3 762 771	\$ 1 736 879	Higher MISO LMP outlook than originally forecasted and higher or cost company generation serving sale
Municipal Solar Energy	RADE SECRE DA A BEGINS	RADE SECRE DA A BEGINS		No Change
Average Fuel Cost				
o al Fuel Cost	\$ 187 367	\$ 189 090	\$ (1 693)	Update to Commercial Operations Date which updated the rate change
total Inter System Sales Customer (MWhs)	755 606	844 434	88 808	
total Inter System Sales Customer (Dollars)	\$ 25 558 113	\$ 29 950 462	\$ (4 762 293)	
	Revised 2023 Forecast	Original 2023 Forecast	Difference	Explanation
	total	total		
Oconto	RADE SECRE DA A BEGINS	RADE SECRE DA A BEGINS		No Change
Average Fuel Cost				
o al Fuel Cost	\$ 2 738 468	\$ 2 824 176	\$ (185 708)	Lower fuel cost outlook for Boswell generation
Hibbing Public Utilities	RADE SECRE DA A BEGINS	RADE SECRE DA A BEGINS		No Change
Average Fuel Cost				
o al Fuel Cost	\$ 1 195 913	\$ 1 280 743	\$ (84 828)	Lower fuel cost outlook for Boswell generation
Asset Based Sales (Non MISO)	RADE SECRE DA A BEGINS	RADE SECRE DA A BEGINS		No Change
Average Fuel Cost				
o al Fuel Cost	\$	\$	\$	No Change
Unaudited Sales (Non MISO)	RADE SECRE DA A BEGINS	RADE SECRE DA A BEGINS		No Change
Average Fuel Cost				
o al Fuel Cost	\$	\$	\$	No Change
MISO Market Sales	RADE SECRE DA A BEGINS	RADE SECRE DA A BEGINS		With higher MISO LMP's projected, more company generation is used to serve load and less available for MISO Market Asset Based Sales
Average Fuel Cost				
o al Fuel Cost	\$ 57 395 533	\$ 56 706 435	\$ 689 098	With more lower priced generation being used to serve company load, more higher or cost generation is being used to serve Asset Based Sales
Minnesota Power Liquidation	RADE SECRE DA A BEGINS	RADE SECRE DA A BEGINS		Higher Square Butte generation on projected - See Purchase, Square Butte section
Average Fuel Cost				
o al Fuel Cost	\$ 26 816 648	\$ 27 136 495	\$ (319 798)	Updated fuel assumptions based on market updates since the original FAC Forecast was submitted
total Inter System Sales Market (MWhs)	2 581 742	3 722 057	1 140 285	
total Inter System Sales Market (Dollars)	\$ 89 146 565	\$ 89 047 756	\$ 98 809	
	Revised 2023 Forecast	Original 2023 Forecast	Difference	Explanation
	total	total		
Oliver 1	RADE SECRE DA A BEGINS	RADE SECRE DA A BEGINS		No Change
Average Fuel Cost				
o al Fuel Cost	\$ 9 146	\$ 9 146	\$	No Change
Oliver 2	RADE SECRE DA A BEGINS	RADE SECRE DA A BEGINS		No Change
Average Fuel Cost				
o al Fuel Cost	\$ 8 063	\$ 8 063	\$	No Change
WPPI	RADE SECRE DA A BEGINS	RADE SECRE DA A BEGINS		No Change
Average Fuel Cost				
o al Fuel Cost	\$ 69 526	\$ 69 526	\$	No Change
total Inter System Sales Station Service (MWhs)	2 473	2 473	0	
total Inter System Sales Station Service (Dollars)	\$ 86 734	\$ 86 734	\$	
	Revised 2023 Forecast	Original 2023 Forecast	Difference	Explanation
	total	total		
MISO Recovered thru Market Sales	total Cost	total		
o al Fuel Cost	\$ 16 962 314	\$ 11 039 289	\$ 5 923 050	MISO Cost outlook increased due to actual price spreads incurred in 2022 and updated projections
total Inter System Sales MISO Costs (Dollars)	\$ 16 962 314	\$ 11 039 289	\$ 5 923 050	
	Revised 2023 Forecast	Original 2023 Forecast	Difference	Explanation
	total	total		
Sales due to Retail Loss of Load	RADE SECRE DA A BEGINS	RADE SECRE DA A BEGINS		No Change
Average Fuel Cost				
o al Fuel Cost	\$	\$	\$	No Change
MISO Recovered thru Sales due to Retail Loss of Load	total Cost	total		
o al Fuel Cost	\$	\$	\$	No Change
Liquidation for Sales due to Retail Loss of Load	total Cost	total		
o al Fuel Cost	\$	\$	\$	No Change
total Inter System Sales Sales due to Retail Loss of Load (MWhs)	0	0	0	
total Inter System Sales Sales due to Retail Loss of Load (Dollars)	\$	\$	\$	
	Revised 2023 Forecast	Original 2023 Forecast	Difference	Explanation
	total	total		
Asset Based Sales Margins	total Margins	total		
o al Fuel Cost	\$ 31 250 652	\$ 25 680 523	\$ 5 570 130	Higher MISO LMP outlook than originally forecasted which increases the sales price of Asset Based Sales increasing margins
total Inter System Sales MISO Costs (Dollars)	\$ 31 250 652	\$ 25 680 523	\$ 5 570 130	
	Revised 2023 Forecast	Original 2023 Forecast	Difference	Explanation
	total	total		
total Company Inter System Sales MWhs	4 339 872	4 556 944	218 073	
total Company Inter System Sales Dollars	\$ 151 604 379	\$ 154 774 739	\$ (3 170 360)	

SOLAR ENERGY ADJUSTMENT

Docket No. E015/M-15-773

	January 2023	February 2023	March 2023	April 2023	May 2023	June 2023	July 2023	August 2023	September 2023	October 2023	November 2023	December 2023
Total Monthly Fuel Cost	24,355,641	22,586,193	21,462,120	19,792,509	19,975,359	27,665,051	30,655,284	27,698,592	28,086,823	25,318,906	22,698,696	25,329,763
Less: Costs related to Solar	95,071	137,751	226,369	258,208	291,803	308,444	347,857	303,767	233,124	153,642	100,749	65,529
Total Non-Solar FAC Costs	24,260,571	22,448,443	21,235,750	19,534,301	19,683,556	27,356,607	30,307,427	27,394,825	27,853,698	25,165,263	22,597,947	25,264,234
Current 2-Month Total Fuel Cost	44,447,123	46,709,013	43,684,193	40,770,051	39,217,857	47,040,163	57,664,033	57,702,251	55,248,523	53,018,962	47,763,210	47,862,181
Total Monthly KWH Sales	802,916,000	730,970,000	775,453,000	714,761,000	720,028,000	693,374,000	746,091,000	738,309,000	704,010,000	712,662,000	737,610,000	796,583,000
Less: Solar Generation and Purchases	2,434,259	3,389,524	5,020,051	5,748,129	6,493,877	6,698,206	7,568,414	6,698,206	5,188,866	3,872,940	2,385,074	1,743,688
Total Non-Solar FAC KWH Sales	800,481,741	727,580,476	770,432,949	709,012,871	713,534,123	686,594,043	738,522,586	731,610,794	698,821,134	708,789,060	735,224,926	794,839,312
Current 2-Month Total KWH Sales	1,600,440,641	1,528,062,217	1,498,013,424	1,479,445,820	1,422,546,994	1,400,128,166	1,425,116,629	1,470,133,380	1,430,431,928	1,407,610,194	1,444,013,986	1,530,064,237
Fuel Cost - cents/kWh	2.777	3.057	2.916	2.756	2.757	3.360	4.046	3.925	3.862	3.767	3.308	3.128
TOGA Percentage	87.97%	70.16%	80.54%	81.32%	84.15%	64.13%	61.00%	60.78%	63.81%	69.53%	70.01%	68.57%
Fuel Cost Credit to the SEA - cents/kWh	2.443	2.145	2.349	2.241	2.320	2.155	2.468	2.386	2.464	2.619	2.316	2.145
BILLING MONTH:	March 2023	April 2023	May 2023	June 2023	July 2023	August 2023	September 2023	October 2023	November 2023	December 2023	January 2024	February 2024

	January 2023	February 2023	March 2023	April 2023	May 2023	June 2023	July 2023	August 2023	September 2023	October 2023	November 2023	December 2023
TOGA Percentage	87.97%	70.16%	80.54%	81.32%	84.15%	64.13%	61.00%	60.78%	63.81%	69.53%	70.01%	68.57%
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	-12.03%	-29.84%	-19.46%	-18.68%	-15.85%	-35.87%	-39.00%	-39.22%	-36.19%	-30.47%	-29.99%	-31.43%
TOGA to the FAC (Dollars)	\$ (8,133.80)	\$ (30,923.15)	\$ (28,488.49)	\$ (29,598.10)	\$ (28,384.76)	\$ (81,703.92)	\$ (119,415.02)	\$ (103,117.94)	\$ (72,521.37)	\$ (44,453.38)	\$ (23,662.39)	\$ (17,141.73)

	January 2023	February 2023	March 2023	April 2023	May 2023	June 2023	July 2023	August 2023	September 2023	October 2023	November 2023	December 2023
Costs Related to Solar	\$ 95,070.73	\$ 137,750.50	\$ 226,369.36	\$ 258,207.88	\$ 291,803.28	\$ 308,444.22	\$ 347,857.34	\$ 303,766.81	\$ 233,124.44	\$ 153,642.23	\$ 100,749.22	\$ 65,528.73
Less: Credit from FAC / TOGA	\$ 59,465.56	\$ 72,694.61	\$ 117,896.20	\$ 128,820.33	\$ 150,651.44	\$ 146,102.63	\$ 186,803.00	\$ 159,796.66	\$ 127,872.63	\$ 101,440.27	\$ 55,235.86	\$ 37,400.85
Net Costs Related to Solar	\$ 35,605.16	\$ 65,055.89	\$ 108,473.16	\$ 129,387.55	\$ 141,151.84	\$ 162,341.59	\$ 161,054.35	\$ 143,980.15	\$ 105,251.81	\$ 52,201.97	\$ 45,513.35	\$ 28,127.88
Current 2-Month Net Costs Related to Solar	\$ 19,429.43	\$ 100,661.05	\$ 173,529.05	\$ 237,860.70	\$ 270,539.38	\$ 303,493.43	\$ 323,395.94	\$ 305,034.50	\$ 249,231.96	\$ 157,453.77	\$ 97,715.32	\$ 73,641.24
Total Monthly kWh Sales	802,916,000	730,970,000	775,453,000	714,761,000	720,028,000	693,374,000	746,091,000	738,309,000	704,010,000	712,662,000	737,610,000	796,583,000
Less: Retail SES Exempt	392,401,888	355,950,888	391,757,888	374,382,888	386,835,888	371,747,888	388,930,888	386,342,888	376,854,888	380,438,888	391,228,888	397,115,888
Less: Municipal SES Exempt	120,264,000	111,512,000	115,809,000	108,191,000	110,690,000	101,064,000	109,087,000	107,003,000	98,994,000	106,181,000	107,210,000	115,325,000
Total Non-Exempt kWh Sales	290,250,112	263,507,112	267,886,112	232,187,112	222,502,112	220,562,112	248,073,112	244,963,112	228,161,112	226,042,112	239,171,112	284,142,112
Current 2-Month Total Non-Exempt kWh Sa	573,438,516	553,757,225	531,393,225	500,073,225	454,689,225	443,064,225	468,635,225	493,036,225	473,124,225	454,203,225	465,213,225	523,313,225
SEA Adjustment - Dollars per KWH	\$0.00003	\$0.00018	\$0.00033	\$0.00048	\$0.00059	\$0.00068	\$0.00069	\$0.00062	\$0.00053	\$0.00035	\$0.00021	\$0.00014
SEA Adjustment - cents per KWH	0.00339	0.01818	0.03266	0.04757	0.05950	0.06850	0.06901	0.06187	0.05268	0.03467	0.02100	0.01407
BILLING MONTH:	March 2023	April 2023	May 2023	June 2023	July 2023	August 2023	September 2023	October 2023	November 2023	December 2023	January 2024	February 2024

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 or taken offline for economics. 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] tons of coal for the period of [TRADE SECRET DATA BEGINS [REDACTED] TRADE SECRET DATA ENDS] through [TRADE SECRET DATA BEGINS [REDACTED] TRADE SECRET DATA ENDS]

Arch Coal Sales, Black Thunder Mine, Wright, 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] tons

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

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

Peabody CoalSales, LLC., St. Louis, Missouri, Caballo Mine, Campbell County,
Wyoming

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

TRADE SECRET DATA ENDS] through **[TRADE SECRET DATA BEGINS**
██████████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 2023.

Rail Contracts

Burlington Northern Santa Fe (currently known as BNSF Railway)

- An agreement signed on **[TRADE SECRET DATA BEGINS** **██████████**
TRADE SECRET DATA ENDS] provides for the transportation of coal from **[TRADE SECRET DATA BEGINS** **██████████****TRADE SECRET DATA ENDS]** through **[TRADE SECRET DATA BEGINS** **██████████****TRADE SECRET DATA ENDS]** for a minimum of **[TRADE SECRET DATA BEGINS** **██████████****TRADE SECRET DATA ENDS]** tons per year and a maximum of **[TRADE SECRET DATA BEGINS** **██████████****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, as well as 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** **██████████**
TRADE SECRET DATA ENDS] through **[TRADE SECRET DATA BEGINS** **██████████**
██████████TRADE SECRET DATA ENDS].

Monthly Forecasted MISO Day 2 Charges and Allocation

Docket No. E999/AA-07-1130

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 resale fuel adjustment clause.
- 3. *MISO Non-Liquidation*** – Asset based sales MWh from generation resources to MISO in the Day-Ahead or Real-Time markets.
- 4. *MISO – Liquidation*** – Non-asset based sales MWh to MISO, the source of which was a purchase from another entity that was intended to serve load but was not needed because generation levels were higher than expected or loads were lower than expected.
- 5. *Others – Liquidation*** – Non-asset based sales MWh to other entities (not MISO), the source of which was a purchase from another entity that was intended to serve load but was not needed because generation levels were higher than expected or loads were lower than expected.
- 6. *Others – Non-Liquidation*** – Asset based sales MWh from generation resources to other entities (not MISO) and is not under a longer term contract. This group also includes retail non-firm sales that are not allocated fuel adjustment clause costs such as Large Power Interruptible and Large Power Incremental Production Service Sales.
- 7. *Contract Sales*** – Asset based sales MWh related to longer term contracts.

Day Ahead and Real-Time Energy costs assigned for categories 3-7 above:

Minnesota Power's Energy Pricing system assigns purchases and generation based on cost not category type. Minnesota Power assigns the highest cost generation or purchases to non-FAC sales first to help ensure that the FAC receives the lowest cost generation or purchases. Certain transactions do not follow this methodology. Output from our renewable resource generators and renewable energy power purchase agreements are dedicated to load to help meet the states renewable energy standard. Minnesota Power then determines the source of the FAC MWh by a separate analysis. A similar analysis is not done for non-FAC sales because there has not been a need to report the sources of non-FAC sales. We are unable to identify what portion of Day Ahead and Real Time Energy was assigned to the other non-FAC categories.

As indicated as a footnote to the spreadsheet in our filing, Day Ahead Asset Energy, Real Time Asset Energy, Day Ahead Non-Asset Energy and Real Time Non-Asset Energy are not shown to be allocated to MISO Non-Liquidation, MISO Liquidation, Others-Liquidation, and Contract Sales as these amounts are not tracked separately by Minnesota Power's systems as discussed above.

MISO NON-FLY ALLOCATIONS		Account Number	January 2023				FAC Regals				Subtotal FPE and FAC		MISO Non-Liquidation				
		Number	M	Credit	M	Debit	M	Credit	M	Debit	Credit (FPE & FAC)	M	Credit	M	Debit		
Day Ahead and Real Time Energy																	
Day Ahead Asset Energy		700-0000 or 55500-0000 or 55500-0000	-								-						
14	Day Ahead Financial Benefit	55500-0000	-								-						
136	Real Time Asset Energy	700-0000 or 55500-0000 or 55500-0000	-								-						
Excessive Energy Amount		55500-0006	-								-						
Non-Excessive Energy Amount		55500-0009	-								-						
Real Time Incentive Energy		55500-0010	-								-						
Subtotal			680 218	0 00			120 264				211 528						
Day Ahead and Real Time Energy Loss																	
Day Ahead Loss		700-0000 or 55500-0000 or 55500-0000	8.16,995.0		5,203,957.68	-		918,239.59	-		6,121,997.27		1,702,212.23	-			
Day Ahead Financial Benefit		55500-0000	-								-						
Real Time Loss		700-0000 or 55500-0000 or 55500-0000	-								-						
36	Real Time Financial Benefit	55500-0000	(230,000.00)			(1,642,625.00)			25,875.00		(172,900.00)			(7,899.23)			
Subtotal			7,934,995.04		680 218	5,203,957.68	680 218	(1,642,625.00)	120 264	918,239.59	120 264	25,875.00	5,949,097.27	211 528	1,702,212.23	211 528	(47,899.24)
Virtual Energy																	
Day Ahead Virtual Energy		55500-0000	-								-						
Real Time Virtual Energy		55500-0000	-								-						
Subtotal			680 218		680 218		120 264		120 264		211 528		211 528				
Schedule 16-A 12 - M																	
Day Ahead Market Administration		55500-0000	1,000.00		91,800.00	-		16,200.00	-		108,000.00		29,989.09	-			
Real Time Market Administration		55500-0006	-		9,562.50	-		1,687.50	-		11,250.00		3,123.86	-			
Financial Transaction on Rights Monthly		55500-0001	-		2,467.50	-		382.50	-		2,850.00		708.06	-			
Subtotal			162,400.00		680 218	101,362.50	680 218	17,887.50	120 264	17,887.50	120 264	121,800.00	211 528	33,821.03	211 528		
Congestion Firms & Bids																	
Day Ahead Congestion		700-0000 or 55500-0000 or 55500-0000	-								-						
136	Real Time Congestion	700-0000 or 55500-0000 or 55500-0000	-								-						
Day Ahead Financial Benefit		55500-0000	-								-						
Real Time Financial Benefit		55500-0000	-								-						
15	Auction Revenue Right Transaction	55500-0007	-								-						
Financial Transaction on Rights Annual		55500-0008	(11,788.59)			(7,515.28)		(1,326.22)		(8,611.1)				(2,950.68)			
Auction Revenue Right Intra-Day		55500-0009	9,700.00		6,145.94			1,681.94		7,774.00		9,670.10					
Auction Revenue Right Stage 2		55500-0010	(90,000.00)			(57,375.00)		(10,125.00)		(67,900.00)				(18,731.18)			
Financial Transaction on Rights Hourly		55500-0011	(612.26)			(517,818.60)		91,379.79		(609,198.39)				(169,160.23)			
Financial Transaction on Rights Monthly		55500-0012	-								-						
Financial Transaction on Rights Yearly		55500-0013	-								-						
Financial Transaction on Rights Full		55500-0014	-								-						
Financial Transaction on Rights Monthly		55500-0015	-								-						
Financial Transaction on Rights		55500-0016	-								-						
Financial Transaction on Rights		55500-0017	-								-						
Subtotal			(904,353.06)		680 218	6,183.75	680 218	(582,708.82)	120 264	1,091.25	120 264	(102,830.97)	211 528	2,020.10	211 528	(190,358.47)	
MISO & Make Whole Payments																	
Day Ahead Revenue Surcharge		55500-0000	25,000.00		15,937.50	-		2,812.50	-		18,750.00		5,206.00	-			
Real Time Revenue Surcharge		55500-0009	(13,000.00)		(8,287.50)	-		(1,625.00)	-		(9,750.00)				(2,707.35)		
Real Time Revenue Surcharge		55500-0007	(5,000.00)		(3,187.50)	-		(662.50)	-		(3,750.00)				(1,013.29)		
Real Time Revenue Surcharge		55500-0006	65,000.00		1,375.00	-		7,312.50	-		8,750.00		13,526.77	-			
Guaranteed Make Whole Payment		55500-0007	(18,000.00)		(11,750.00)	-		(2,025.00)	-		(13,500.00)				(3,736.54)		
Subtotal			54,000.00		680 218	57,375.00	680 218	(22,950.00)	120 264	10,125.00	120 264	(4,950.00)	40,900.00	211 528	16,743.18	211 528	(7,497.27)
MISO & Misc Charges																	
Real Time Net Incentive Distribution		55500-0000	(2,000.00)		(1,275.00)	-		(225.00)	-		(1,900.00)				(1,165.52)		
Real Time Revenue Neutral by UpRt		55500-0006	100,000.00		121,125.00	-		21,375.00	-		1,200.00		39,569.9	-			
Demand Response Allocation on UpRt		55500-0007	9,000.00		5,737.50	-		1,012.50	-		6,750.00		1,677.32	-			
Day Ahead Ramp Capacity		55500-0009	-								-						
Real Time Ramp Capacity		55500-0000	-								-						
Subtotal			210,000.00		680 218	125,150.00	680 218	(1,275.00)	120 264	23,850.00	120 264	(225.00)	157,900.00	211 528	44,150.61	211 528	(416.52)
Grand allocated charges - fees																	
Day Ahead Congestion Rebate on Capacity		55500-0001	-								-						
Day Ahead Congestion Rebate on Capacity		55500-0002	-								-						
Day Ahead Congestion Rebate on Capacity		55500-0003	-								-						
Real Time Congestion Rebate on Capacity		55500-0004	-								-						
Real Time Congestion Rebate on Capacity		55500-0005	-								-						
Subtotal					680 218		120 264		120 264		211 528		211 528				
ASM Charge - fees (2010-1)																	
Day Ahead Reserve Amount		55500-0000	(6,000.00)		-	(1,800.00)		-	(7,200.00)		(8,000.00)		-		(13,328.00)		
Day Ahead Reserve Amount		55500-0001	(3,000.00)		(77.12)	-		-	(8,377.50)		(32,265.00)		-		(8,995.00)		
Day Ahead Reserve Amount		55500-0002	-								-						
Consignee Reserve Amount		55500-0003	-								-						
Real Time Reserve Amount		55500-0004	17,000.00		10,837.50	-		1,912.50	-		12,750.00		35.038	-			
Real Time Reserve Amount		55500-0005	-		99,919.94	-		1,497.94	-		36,360.00		7,989.03	-			
Real Time Reserve Amount		55500-0006	23,000.00		1,662.50	-		2,587.50	-		17,250.00		789.92	-			
Real Time Reserve Amount		55500-0007	7,000.00		62.50	-		787.50	-		5,250.00		1,578.80	-			
Real Time Reserve Amount		55500-0008	30,000.00		19,125.00	-		3,375.00	-		22,500.00		62.773	-			
Real Time Reserve Amount		55500-0009	-								-						
Real Time Reserve Amount		55500-0010	8,000.00		5,100.00	-		900.00	-		6,000.00		1,666.06	-			
Real Time Reserve Amount		55500-0011	(1,000.00)		(8,925.00)	-		(1,575.00)	-		(10,500.00)				(2,913.61)		
Real Time Reserve Amount		55500-0012	-		1,912.50	-		337.50	-		2,250.00		62.77	-			
Real Time Reserve Amount		55500-0013	19,999.99		17,119.94	-		7,117.94	-		17,999.99		1,966.06	-			
Subtotal			21,000.00		680 218	90,525.00	680 218	(77,137.50)	120 264	15,975.00	120 264	15,975.00	211 528	29,572.58	211 528	(25,199.17)	
Grand Total																	
Grand Total		7,478,941.98	680 218	5,996,121.43	680 218	(830,696.32)	120 264	987,550.94	120 264	(146,593.47)	5,906,382.47	211 528	1,830,519.72	211 528	(271,379.17)		

MINNESOTA POWER		Account	January 2022				MISO - L. Settlement				Others - L. Settlement				Others - Reg. L. Settlement				Contract Sales			
MISO MCHN HLY ALLOCA ON		Number					M	Cost	M	Re a	M	Cost	M	Re a	M	Cost	M	Re a	M	Cost	M	Re a
Day Ahead and Real Time Energy																						
Day Ahead Asset Energy		700-0000 or 5500-0000 or 5500-0050	-																			
On - sold No - sold E. & S.		5500-0007	-																			
Real Time Asset Energy		700-0000 or 5500-0000 or 5500-0050	-																			
Excessive Energy Amount		5500-0056	-																			
Non-Excessive Energy Amount		5500-0066	-																			
Real Time Non-Asset Energy		5500-00-3	-																			
Subtotal				472							42 398							120 142				
Day Ahead and Real Time Energy Losses																						
Day Ahead Loss		700-0000 or 5500-0000 or 5500-0050	8.16 995.0										3 1,185.5	-			-					
Day Ahead Financial Bilateral Transaction Loss		5500-0002	-														-					
Real Time Loss		700-0000 or 5500-0000 or 5500-0050	-														-					
Real Time Distribution of Losses		5500-00-1	230 000.00														9,600.78					
Real Time Financial Bilateral Transaction Loss		5500-0038	-														-					
Subtotal			7 934 995.04	472		472					42 398	341 185.54	42 398	9 600.78				120 142		120 142		
Virtual Energy																						
Day Ahead Virtual Energy		5500-0030	-																			
Real Time Virtual Energy		5500-00-9	-																			
Subtotal				472		472					42 398			42 398				120 142		120 142		
Schedule 16.4.17 - 11																						
Day Ahead Market Administration		5500-0020	1 000.00										6,010.91	-			-					
Real Time Market Administration		5500-0036	15 000.00										626.1				-					
Financial Transaction Rights Market		5500-0031	3 00.00										1 1.92	-			-					
Subtotal			162 400.00	472		472					42 398	6 778.97	42 398					120 142		120 142		
Contract Sales & Other																						
Day Ahead Congest on		700-0000 or 5500-0000 or 5500-0050	-										-				-					
Real Time Congest on		700-0000 or 5500-0000 or 5500-0050	-										-				-					
Day Ahead Financial Bilateral Transaction Congest on		5500-0001	-										-				-					
Real Time Financial Bilateral Transaction Congest on		5500-0037	-										-				-					
Financial Transaction Rights Transaction		5500-0058	-										-				-					
Financial Transaction Rights Annual Transaction Amount		5500-0003	111 788.58										-				(92.08)					
Financial Transaction Rights in Establish Upfront Amount		5500-0005	0 000.00										0 30				-					
Financial Transaction Rights Stage 2 Distribution Amount		5500-0061	000 000.00										-				3,756.82					
Financial Transaction Rights Hourly Allocation		5500-0032	812 26 71										-				(33,905.89)					
Financial Transaction Rights Monthly Allocation		5500-0031	-										-				-					
Financial Transaction Rights Yearly Allocation		5500-0035	-										-				-					
Financial Transaction Rights Full Contract Distribution Amount		5500-0006	-										-				-					
Financial Transaction Rights Monthly Allocation		5500-0004	-										-				-					
Financial Transaction Rights Monthly Allocation		5500-0056	-										-				-					
Financial Transaction Rights Monthly Allocation		5500-0057	-										-				-					
Financial Transaction Rights Monthly Allocation		5500-0001	-										-				-					
Subtotal			904 363.06	472		472					42 398	404.90	42 398	138 154.78				120 142		120 142		
Risk & Make Whole Payments																						
Day Ahead Revenue Sufficiency Guarantee On Opt Out		5500-0008	25 000.00										1.0 356	-			-					
Day Ahead Revenue Sufficiency Guarantee On Opt Out		5500-0008	113 000.00										-				(5 246)					
Real Time Revenue Sufficiency Guarantee On Opt Out		5500-0007	15 000.00										-				(208.71)					
Real Time Revenue Sufficiency Guarantee On Opt Out		5500-00-6	65 000.00										2,713.36				-					
Real Time Revenue Sufficiency Guarantee On Opt Out		5500-00-7	118 000.00										1,051.35				-					
Subtotal			54 000.00	472		472					42 398	3 756.62	42 398	1 902.73				120 142		120 142		
Other & Misc Charges																						
Real Time Miscellaneous		5500-00-2	-										-				-					
Real Time Net Inadvertent Distribution		5500-00-4	(2 000.00)										-				(83. 8)					
Real Time Revenue Neutrality Upfront		5500-00-5	190 000.00										7,931.06				-					
Real Time Revenue Neutrality Upfront		5500-00-8	-										-				-					
Demand Response Allocation Upfront		5500-0077	9 000.00										375.68				-					
Day Ahead Ramp Capability Amount		5500-0079	-										-				-					
Real Time Ramp Capability Amount		5500-0080	-										-				-					
Real Time Ramp Capability Amount		5500-0081	13 000.00										5 246				-					
Subtotal			210 000.00	472		472					42 398	8 849.39	42 398	(83.48)				120 142		120 142		
Grandfathered Charge - Fees																						
Day Ahead Congest on Rebate on Carve Out Grandfathered		5500-0003	-										-				-					
Day Ahead Losses Rebate on Carve Out Grandfathered		5500-0002	-										-				-					
Day Ahead Congest on Rebate on Carve Out Grandfathered		5500-0005	-										-				-					
Day Ahead Losses Rebate on Opt on B Grandfathered		5500-0006	-										-				-					
Real Time Losses Rebate on Carve Out Grandfathered		5500-00-9	-										-				-					
Real Time Congest on Rebate on Carve Out Grandfathered		5500-0009	-										-				-					
Subtotal				472		472					42 398			42 398				120 142		120 142		
ASM Charge - Fees (X Other)																						
Day Ahead Distribution Amount		5500-0062	(6 000.00)										-				2,671.52					
Day Ahead Spinning Reserve Amount		5500-0063	1 300 000.00										-				(1,79 392)					
Day Ahead Supplemental Reserve Amount		5500-0064	-										-				-					
Contingency Reserve Deployment Failure Charge Amount		5500-0065	-										-				-					
Real Time Distribution Amount		5500-0066	17 000.00										709.62				-					
Regulation Reserve Cost Distribution		5500-0070	16 000.00										1 600.98				-					
Real Time Excessive Demand		5500-0071	23 000.00										960.08				-					
Real Time Spinning Reserve Amount		5500-0072	7 000.00										292.20				-					
Spinning Reserve Cost Distribution Amount		5500-0073	30 000.00										1,252.27				-					
Real Time Supplemental Reserve Amount		5500-0074	-										-				-					
Supplemental Reserve Cost Distribution		5500-0075	8 000.00										333.9				-					
Day Ahead Short-Term Reserve Amount		5500-0082	11 000.00										-				(58 339)					
Real Time Short-Term Reserve Amount		5500-0083	3 000.00										125.23				-					
Short-Term Reserve Cost Distribution Amount		5500-0084	-										-				-					
Short-Term Reserve Deployment Failure Charge Amount		5500-0085	-										793.11				-					
Subtotal			21 000.00	472		472					42 398	5 927.42	42 398	5 950.83				120 142		120 142		
Grand Total			7 478 541.98	472		472					42 398	366 903.06	42 398	154 282.60				120 142		120 142		

MINNESOTA POWER		Account Number	February 2023				FPE Regain				FAC Regain				Subtotal FPE and FAC		MSO Non-Liquidation			
MISO NON-FLY ALLOCATIONS							M	Cost	M	Re-e-e	M	Cost	M	Re-e-e	M	Cost (Re-e-e)	M	Cost	M	Re-e-e
Day Ahead and Real Time Energy																				
Day Ahead Asset Energy		700-0000 or 55500-0000 or 55500-0000	-																	
15	DA Real Time - State E-a-g	55500-0007	-																	
Real Time Asset Energy		700-0000 or 55500-0000 or 55500-0000	-																	
135	Excessive Energy Amount	55500-0056	-																	
Non-Excessive Energy Amount		55500-0059	-																	
22	Real Time Non-Asset Energy	55500-00-3	-																	
Subtotal				616 068	0 00						111 512					152 935				
Day Ahead and Real Time Energy Loss																				
Day Ahead Loss		700-0000 or 55500-0000 or 55500-0000	6,609,688.88		376.76.15	-					772,370.1	-		5.1.9.13.30		1,138,311.09				
16	Day Ahead Financial Break-Even Transaction Loss	55500-0002	-								-									
Real Time Loss		700-0000 or 55500-0000 or 55500-0000	-								-									
135	Real Time Distributional Losses	55500-0001	(230,000.00)			(152.90.00)						26,910.00		(179.00.00)					(39.36.05)	
16	Real Time Financial Break-Even Transaction Loss	55500-0038	-																	
Subtotal			6,379,688.88	616 068	4,376,764.15	616 068	(152,490.00)				111 512	772,370.14	111 512	26,910.00		4,969,734.30	152 935	1,138,311.09	152 935	(39,436.05)
Virtual Energy																				
Day Ahead Virtual Energy		55500-0030	-																	
17	Real Time Virtual Energy	55500-00-9	-																	
Subtotal				616 068		616 068					111 512		111 512			152 935			152 935	
Schedule 16-A 12-11																				
Day Ahead Market Administration (Schedule 12)		55500-0000	1,000.00		95.72.00	-					16.8.8.00	-		112,320.00		2,690.0				
19	Real Time Market Administration (Schedule 12)	55500-0036	15,000.00		9.9.5.00	-					1,755.00	-		11,700.00		2,571.92				
29	Financial Transaction on Rights Market (Schedule 12)	55500-0031	3,000.00		2.25.20	-					397.80	-		2,652.00		582.97				
Subtotal			162,400.00	616 068	107,671.20	616 068					111 512	19,000.80	111 512		126,672.00	152 935	27,846.28	152 935		
Congestion F-Res & RBs																				
Day Ahead Congestion		700-0000 or 55500-0000 or 55500-0000	-																	
15	Real Time Congestion	700-0000 or 55500-0000 or 55500-0000	-																	
135	Day Ahead Financial Break-Even Congestion	55500-0001	-																	
15	Real Time Financial Break-Even Congestion	55500-0037	-																	
Auction Revenue Right Transaction		55500-0058	-																	
Financial Transaction on Rights Annual Auction Revenue Right Infeasible Uplift Amount		55500-0059	(11,788.59)			(7,815.6.1)	-				(1,379.27)		(9,195.18)						(2,021.28)	
Auction Revenue Right Stage 2 Auction Revenue		55500-0061	9,700.00		6.1.1.1.1	-					1,111.00		7,600.00		1,603.1.7					
Financial Transaction on Rights Hourly Allocation		55500-0064	(90,000.00)			(59,670.00)	-				(10,530.00)		(70,200.00)						(15.31.50)	
28	Financial Transaction on Rights Monthly Allocation	55500-0032	(612.26.7)			(538,531.3.1)	-				95.03.9.1		(633,566.28)						(139,271.7.1)	
30	Financial Transaction on Rights Yearly Allocation	55500-0033	-																	
Financial Transaction on Rights Full Economic Clearance Amount		55500-0065	-																	
FTT Clearance Uplift Amount		55500-0066	-																	
Financial Transaction on Rights Monthly Allocation		55500-0056	-																	
31	Financial Transaction on Rights Transaction	55500-0063	-																	
Subtotal			(904,353.00)	616 068	6,431.10	616 068	(606,017.38)				111 512	1,134.90	111 512	(106,944.21)		(795,395.38)	152 935	1,663.17	152 935	(156,724.93)
RSC & Make-Whole Payments																				
Day Ahead Revenue Surcharge Guarantee Distribution		55500-0028	25,000.00		16,575.00	-					2,925.00	-		19,000.00		286.53				(2,238.99)
10	Day Ahead Revenue Surcharge (Schedule 12)	55500-0029	(13,000.00)			(8,619.00)	-				(1,521.00)	-		(1,011.00)						(867.31)
Real Time Price Volatility Make-Whole Payment		55500-0057	(5,000.00)			(3,315.00)	-				685.00	-		(3,900.00)						
2	Real Time Revenue Surcharge (Schedule 12)	55500-00-4	65,000.00		3,095.00	-					7,605.00	-		50,700.00		11.1.97				(3,096.35)
25	Real Time Revenue Surcharge Make-Whole Payment	55500-00-7	(18,000.00)			(11.39.00)	-				(2,106.00)	-		(3.0.0.00)						
Subtotal			54,000.00	616 068	59,670.00	616 068	(23,868.00)				111 512	19,530.00	111 512	(4,232.00)		42,120.00	152 935	15,431.90	152 935	(6,172.60)
RSC & Misc. Charges																				
Real Time MISO Auction		55500-00-2	-																	
20	Real Time Net Inadvertent Distribution	55500-00-5	(2,000.00)			(1,326.00)	-				(23.00)		(1,560.00)							(3,292)
Real Time Revenue Neutral Uplift		55500-00-6	100,000.00		125,970.00	-					22,230.00	-		1,800.00		32,577.61				
26	Real Time Unfunded Deviation	55500-00-8	-																	
Demand Response Allocation Uplift		55500-0077	9,000.00		5,967.00	-					1,053.00	-		7,000.00		15.3.15				
33	Day Ahead Ramp Capacity Amount	55500-0079	-																	
Real Time Schedule 9 Cost Distribution		55500-0081	13,000.00		8,619.00	-					1,521.00	-		10.1.0.00		2,238.99				(342.92)
Subtotal			210,000.00	616 068	140,556.00	616 068	(1,326.00)				111 512	24,804.00	111 512	(234.00)		163,800.00	152 935	36,349.75	152 935	(342.92)
Grand allocated charges - fees																				
Day Ahead Congestion Rebate on Capacity Out Grandfathered		55500-0003	-																	
6	Day Ahead Losses Rebate on Capacity Out Grandfathered	55500-0002	-																	
7	Day Ahead Congestion Rebate on Capacity Out Grandfathered	55500-0005	-																	
Real Time Losses Rebate on Capacity Out Grandfathered		55500-0006	-																	
17	Real Time Losses Rebate on Capacity Out Grandfathered	55500-00-2	-																	
18	Real Time Congestion Rebate on Capacity Out Grandfathered	55500-0039	-																	
Subtotal				616 068		616 068					111 512		111 512			152 935			152 935	
ASM Charges - fees (2023)																				
Day Ahead Reserve Cost Amount		55500-0042	(6,000.00)			(1,2.32.00)	-				(7.88.00)	-		(9,902.00)					(10,973.51)	
Day Ahead Spinning Reserve Amount		55500-0043	(3,000.00)			(28,509.00)	-				(5,031.00)	-		(33.5.0.00)					(7,372.83)	
Day Ahead Supplemental Reserve		55500-0046	-																	
Congingency Reserve Deployment Failure Charge Amount		55500-0056	-																	
Real Time Reserve Cost Distribution		55500-0075	17,000.00		11,771.00	-					1,989.00	-		13,260.00		2.91.8				
Regular on Reserve Cost Distribution		55500-0076	16,000.00		71,100.00	-					990.00	-		77,100.00		6,000.1				
Real Time Excessive Deviation		55500-0071	23,000.00		15.2.9.00	-					2,681.00	-		17.9.0.00		3.9.3.60				
Unaccounted Charge Amount		55500-0072	7,000.00		6.1.00	-					819.00	-		5.60.00		1,200.23				
Real Time Spinning Reserve Amount		55500-0072	30,000.00		19,890.00	-					3,510.00	-		23.00.00		5.1.3.83				
Spinning Reserve Cost Distribution		55500-0073	8,000.00		5.30.30	-					936.00	-		6.2.0.00		1,371.69				
Real Time Supplemental Reserve Amount		55500-0077	(1,000.00)			(9,382.00)	-				(1,638.00)	-		(10,920.00)					(2,000.61)	
Short-Term Reserve Cost Distribution		55500-0081	3,000.00		1,989.00	-					351.00	-		2.3.0.00		51.38				
Short-Term Reserve Deployment Failure Charge Amount		55500-0085	16,000.00		17,100.00	-					7,771.00	-		1,400.00		5,947.76				
Subtotal			21,000.00	616 068	94,146.00	616 068	(80,223.00)				111 512	16,614.00	111 512	(14,507.21)		16,800.00	152 935	24,347.47	152 935	(20,746.79)
Grand Total																				
			5,822,736.82	616 068	4,785,238.45	616 068	(863,304.38)				111 512	844,454.84	111 512	(152,457.21)		4,613,310.93	152 935	1,243,948.27	152 935	(223,424.83)

MINNESOTA POWER		Account	MISO - L. Settlement				Others - L. Settlement				Others - Non L. Settlement				Contract Sales			
MISO MON HLY ALLOCA ON		Number	February 2023		MISO - L. Settlement		Others - L. Settlement		Others - Non L. Settlement		Contract Sales		Contract Sales		Contract Sales			
			M	Cost	M	Re s. e.	M	Cost	M	Re s. e.	M	Cost	M	Re s. e.	M	Cost	M	Re s. e.
Day Ahead and Real Time Energy																		
Day Ahead Asset Energy		700-0000 or 5500-0000 or 5500-0050	-															
On - asset No. - asset E. s. s.		5500-0071	-															
Real Time Asset Energy		700-0000 or 5500-0000 or 5500-0050	-															
Excessive Energy Amount		5500-0066	-															
Non-Excessive Energy Amount		5500-0066	-															
Real Time Non-Asset Energy		5500-00-3	-															
Subtotal				12					43 294						94 536			
Day Ahead and Real Time Energy Losses																		
Day Ahead Loss		700-0000 or 5500-0000 or 5500-0056	6 609 689 88									322.2 - 9	-	-	-	-	-	-
Day Ahead Financial Bilateral Transaction Loss		5500-0072	-									-	-	-	-	-	-	-
Real Time Loss		700-0000 or 5500-0000 or 5500-0050	-									-	-	-	-	-	-	-
Real Time Distribution of Losses		5500-00-1	230 000 00											(11,163.95)	-	-	-	-
Real Time Financial Bilateral Transaction Loss		5500-0038	-											-	-	-	-	-
Subtotal			6 379 689 88	12		12			43 294	322 244.49	43 294	(11 163.95)			94 536			94 536
Virtual Energy																		
Day Ahead Virtual Energy		5500-0070	-															
Real Time Virtual Energy		5500-00-9	-															
Subtotal				12		12			43 294		43 294			94 536			94 536	
Schedule 16A-17 - M																		
Day Ahead Market Administration (Schedule 17)		5500-0020	1 000 00									6,989.60	-	-	-	-	-	-
Real Time Market Administration (Schedule 17)		5500-0036	15 000 00									728.08	-	-	-	-	-	-
Financial Transaction Rights Market (Schedule 17)		5500-0031	3 000 00									165.03	-	-	-	-	-	-
Subtotal			162 400 00	12		12			43 294	7 882.72	43 294			94 536			94 536	
Congestion, Financial Rights, and ARRs																		
Day Ahead Congestion		700-0000 or 5500-0000 or 5500-0050	-									-	-	-	-	-	-	-
Real Time Congestion		700-0000 or 5500-0000 or 5500-0050	-									-	-	-	-	-	-	-
Day Ahead Financial Bilateral Transaction Congestion		5500-0072	-									-	-	-	-	-	-	-
Real Time Financial Bilateral Transaction Congestion		5500-0032	-									-	-	-	-	-	-	-
Financial Transaction Rights Transaction		5500-0058	-									-	-	-	-	-	-	-
Financial Transaction Rights Annual Transaction Amount		5500-0059	(11 788.59)											(572.23)	-	-	-	-
Financial Transaction Rights In-elastic Up-Right Amount		5500-0060	-									70.83	-	-	-	-	-	-
Financial Transaction Rights Stage 2 Distribution Amount		5500-0061	(80 000 00)									-	-	-	-	-	-	-
Financial Transaction Rights Hourly Allocation		5500-0039	812.26 - 71									-	-	-	-	-	-	-
Financial Transaction Rights Monthly Allocation		5500-0031	-									-	-	-	-	-	-	-
Financial Transaction Rights Yearly Allocation		5500-0035	-									-	-	-	-	-	-	-
Financial Transaction Rights Full-Cycle Distribution Amount		5500-0062	-									-	-	-	-	-	-	-
Financial Transaction Rights Full-Cycle Distribution Amount		5500-0063	-									-	-	-	-	-	-	-
Financial Transaction Rights Monthly Allocation		5500-0056	-									-	-	-	-	-	-	-
Financial Transaction Rights Monthly Allocation		5500-0056	-									-	-	-	-	-	-	-
Financial Transaction Rights Transaction		5500-0031	-									-	-	-	-	-	-	-
Subtotal			904 363 00	12		12			43 294	470.83	43 294	144 367.13			94 536			94 536
RSC & Make-Whole Payments																		
Day Ahead Revenue Sufficiency Guarantee On-Right Transaction		5500-0028	25 000 00									1,213.7	-	-	-	-	-	-
Day Ahead Revenue Sufficiency Guarantee On-Right Transaction		5500-0028	(13 000 00)									-	-	-	-	-	-	-
Real Time Revenue Sufficiency Guarantee On-Right Transaction		5500-0057	(5 000 00)									-	-	-	-	-	-	-
Real Time Revenue Sufficiency Guarantee On-Right Transaction		5500-00-6	65 000 00									3,155.03	-	-	-	-	-	-
Real Time Revenue Sufficiency Guarantee Make-Whole Payments		5500-00-7	(18 000 00)									-	-	-	-	-	-	-
Subtotal			54 000 00	12		12			43 294	4 368.50	43 294	(1 747.40)			94 536			94 536
Renewable & Misc Charges																		
Real Time Miscellaneous		5500-00-2	-									-	-	-	-	-	-	-
Real Time Net Inadvertent Distribution		5500-00-4	(2 000 00)									-	-	-	-	-	-	-
Real Time Revenue Neutrality Up-Right		5500-00-5	190 000 00									9,222.39	-	-	-	-	-	-
Real Time Renewable and Distributed Generation		5500-00-8	-									-	-	-	-	-	-	-
Demand Response Allocation Up-Right		5500-0077	9 000 00									36.85	-	-	-	-	-	-
Day Ahead Ramp Capability Amount		5500-0079	-									-	-	-	-	-	-	-
Real Time Ramp Capability Amount		5500-0080	-									-	-	-	-	-	-	-
Real Time Ramp Capability Cost Distribution Amount		5500-0081	13 000 00									631.01	-	-	-	-	-	-
Subtotal			210 000 00	12		12			43 294	10 290.25	43 294	(97.08)			94 536			94 536
Grandfathered Charge - RSC																		
Day Ahead Congestion Rebate on Carve-Out Grandfathered		5500-0023	-									-	-	-	-	-	-	-
Day Ahead Losses Rebate on Carve-Out Grandfathered		5500-0022	-									-	-	-	-	-	-	-
Day Ahead Congestion Rebate on Carve-Out Grandfathered		5500-0025	-									-	-	-	-	-	-	-
Day Ahead Losses Rebate on Opt-Out Grandfathered		5500-0026	-									-	-	-	-	-	-	-
Real Time Losses Rebate on Carve-Out Grandfathered		5500-00-9	-									-	-	-	-	-	-	-
Real Time Congestion Rebate on Carve-Out Grandfathered		5500-0029	-									-	-	-	-	-	-	-
Subtotal				12		12			43 294		43 294			94 536			94 536	
ASM Charge - RSC & Other																		
Day Ahead Distribution Amount		5500-0067	(6 000 00)									-	-	-	-	-	-	-
Day Ahead Spinning Reserve Amount		5500-0061	(1 300 00)									-	-	-	-	-	-	-
Day Ahead Supplemental Reserve Amount		5500-0065	-									-	-	-	-	-	-	-
Contingency Reserve Deployment Charge Amount		5500-0066	-									-	-	-	-	-	-	-
Real Time Distribution Amount		5500-0068	-									-	-	-	-	-	-	-
Real Time Result on Amount		5500-0070	17 000 00									825.16	-	-	-	-	-	-
Regulation Reserve Cost Distribution		5500-0071	16 000 00									1,698.86	-	-	-	-	-	-
Real Time Excessive Demand Deployment Charge Amount		5500-0067	23 000 00									1,116.0	-	-	-	-	-	-
Real Time Spinning Reserve Amount		5500-0072	7 000 00									339.77	-	-	-	-	-	-
Spinning Reserve Cost Distribution Amount		5500-0073	30 000 00									1,561.7	-	-	-	-	-	-
Real Time Supplemental Reserve Amount		5500-007	-									-	-	-	-	-	-	-
Supplemental Reserve Cost Distribution		5500-0075	8 000 00									388.31	-	-	-	-	-	-
Day Ahead Short-Term Reserve Amount		5500-0082	(11 000 00)									-	-	-	-	-	-	-
Real Time Short-Term Reserve Amount		5500-0083	3 000 00									1 562	-	-	-	-	-	-
Short-Term Reserve Cost Distribution Amount		5500-0084	16 000 00									922.2	-	-	-	-	-	-
Short-Term Reserve Deployment Failure Charge Amount		5500-0085	-									-	-	-	-	-	-	-
Subtotal			21 000 00	12		12			43 294	6 882.53	43 294	5 873.21			94 536			94 536
Grand total			5 922 736.82	12		12			43 294	352 149.31	43 294	(63 248.79)			94 536			94 536

MINNESOTA POWER		Account Number	FPE Regain				FAC Regain				Subtotal FPE and FAC		MSO Non-Liquidation			
MISO NON-FLY ALLOCATIONS		March 2023	M	Cost	M	Re-e-e	M	Cost	M	Re-e-e	M	Cost	M	Cost	M	Re-e-e
Day Ahead and Real Time Energy																
15	Day Ahead Asset Energy	700-0000 or 55500-0000 or 55500-0000	-								-					
	DA Real Time - Real Time Energy	55500-0000	-								-					
13	Real Time Asset Energy	700-0000 or 55500-0000 or 55500-0000	-								-					
	Excessive Energy Amount	55500-0000	-								-					
22	Non-Excessive Energy Amount	55500-0000	-								-					
	Real Time Non-Asset Energy	55500-00-3	-								-					
Subtotal			654 624	0 00				115 809			-		201 710			
Day Ahead and Real Time Energy Loss																
16	Day Ahead Loss	700-0000 or 55500-0000 or 55500-0000	5,525, 19.66		3 5 5 600.69	-		625.69 .2	-		171.29 .93		1,126 999.23			-
	Day Ahead Financial Breakdown	55500-0000	-		-			-			-		-			-
13	Real Time Loss	700-0000 or 55500-0000 or 55500-0000	-		-			-			-		-			-
	Real Time Financial Breakdown	55500-0000	-		-			-			-		-			-
Subtotal			5 295 416.66	654 624	3 545 600.69	654 624	(146 625.00)	115 809	625 694.24	115 809	25 875.00	3 988 794.93	201 710	1 126 999.23	201 710	(47 856.60)
Virtual Energy																
17	Day Ahead Virtual Energy	55500-0000	-		-			-			-		-			-
	Real Time Virtual Energy	55500-00-9	-		-			-			-		-			-
Subtotal				654 624	654 624			115 809	625 694.24	115 809	25 875.00	3 988 794.93	201 710	1 126 999.23	201 710	(47 856.60)
Schedule 16-A 17-1																
19	Day Ahead Market Administration	55500-0000	1,000.00		91 800.00	-		16 200.00	-		108 000.00		29 961.77			-
	Real Time Market Administration	55500-0000	15 000.00		9 562.50	-		1 687.50	-		11 250.00		3 121.02			-
20	Financial Transaction on Rights Market	55500-0000	3,000.00		2 167.50	-		382.50	-		2 550.00		707.8			-
	Financial Transaction on Rights Market	55500-0000	-		-			-			-		-			-
Subtotal			162 400.00	654 624	103 530.00	654 624		115 809	18 270.00	115 809		121 800.00	201 710	33 790.22	201 710	
Congestion Fines & Rebates																
18	Day Ahead Congestion	700-0000 or 55500-0000 or 55500-0000	-		-			-			-		-			-
	Real Time Congestion	700-0000 or 55500-0000 or 55500-0000	-		-			-			-		-			-
13	Day Ahead Financial Breakdown	55500-0000	-		-			-			-		-			-
	Real Time Financial Breakdown	55500-0000	-		-			-			-		-			-
25	Auction Revenue Right Transaction	55500-0000	-		-			-			-		-			-
	Financial Transaction on Rights Market	55500-0000	-		-			-			-		-			-
26	Auction Revenue Right Transaction	55500-0000	-		-			-			-		-			-
	Financial Transaction on Rights Market	55500-0000	-		-			-			-		-			-
27	Auction Revenue Right Transaction	55500-0000	-		-			-			-		-			-
	Financial Transaction on Rights Market	55500-0000	-		-			-			-		-			-
28	Auction Revenue Right Transaction	55500-0000	-		-			-			-		-			-
	Financial Transaction on Rights Market	55500-0000	-		-			-			-		-			-
29	Auction Revenue Right Transaction	55500-0000	-		-			-			-		-			-
	Financial Transaction on Rights Market	55500-0000	-		-			-			-		-			-
30	Auction Revenue Right Transaction	55500-0000	-		-			-			-		-			-
	Financial Transaction on Rights Market	55500-0000	-		-			-			-		-			-
31	Auction Revenue Right Transaction	55500-0000	-		-			-			-		-			-
	Financial Transaction on Rights Market	55500-0000	-		-			-			-		-			-
Subtotal			(904 353.00)	654 624	6 183.75	654 624	(582 708.82)	115 809	1 091.25	115 809	(102 830.97)	(679 264.79)	201 710	2 018.26	201 710	(190 185.04)
MSO & Make Whole Payments																
10	Day Ahead Revenue Surcharge	55500-0000	25,000.00		15 937.50	-		2 812.50	-		18 750.00		5 201.70			-
	Day Ahead Revenue Surcharge	55500-0000	-		-			-			-		-			-
11	Day Ahead Revenue Surcharge	55500-0000	-		-			-			-		-			-
	Day Ahead Revenue Surcharge	55500-0000	-		-			-			-		-			-
12	Day Ahead Revenue Surcharge	55500-0000	-		-			-			-		-			-
	Day Ahead Revenue Surcharge	55500-0000	-		-			-			-		-			-
2	Day Ahead Revenue Surcharge	55500-0000	-		-			-			-		-			-
	Day Ahead Revenue Surcharge	55500-0000	-		-			-			-		-			-
25	Day Ahead Revenue Surcharge	55500-0000	-		-			-			-		-			-
	Day Ahead Revenue Surcharge	55500-0000	-		-			-			-		-			-
Subtotal			54 000.00	654 624	57 375.00	654 624	(22 950.00)	115 809	10 125.00	115 809	(4 050.00)	40 900.00	201 710	18 726.11	201 710	(7 490.46)
MSO & Misc Charges																
20	Real Time Market Administration	55500-0000	-		-			-			-		-			-
	Real Time Market Administration	55500-0000	-		-			-			-		-			-
21	Real Time Market Administration	55500-0000	-		-			-			-		-			-
	Real Time Market Administration	55500-0000	-		-			-			-		-			-
22	Real Time Market Administration	55500-0000	-		-			-			-		-			-
	Real Time Market Administration	55500-0000	-		-			-			-		-			-
23	Real Time Market Administration	55500-0000	-		-			-			-		-			-
	Real Time Market Administration	55500-0000	-		-			-			-		-			-
24	Real Time Market Administration	55500-0000	-		-			-			-		-			-
	Real Time Market Administration	55500-0000	-		-			-			-		-			-
25	Real Time Market Administration	55500-0000	-		-			-			-		-			-
	Real Time Market Administration	55500-0000	-		-			-			-		-			-
Subtotal			210 000.00	654 624	135 150.00	654 624	(1 275.00)	115 809	23 850.00	115 809	(225.00)	157 900.00	201 710	44 110.38	201 710	(416.14)
Grand allocated charges - fees																
6	Day Ahead Congestion Rebate on Cash	55500-0000	-		-			-			-		-			-
	Day Ahead Congestion Rebate on Cash	55500-0000	-		-			-			-		-			-
7	Day Ahead Congestion Rebate on Cash	55500-0000	-		-			-			-		-			-
	Day Ahead Congestion Rebate on Cash	55500-0000	-		-			-			-		-			-
8	Day Ahead Congestion Rebate on Cash	55500-0000	-		-			-			-		-			-
	Day Ahead Congestion Rebate on Cash	55500-0000	-		-			-			-		-			-
9	Day Ahead Congestion Rebate on Cash	55500-0000	-		-			-			-		-			-
	Day Ahead Congestion Rebate on Cash	55500-0000	-		-			-			-		-			-
10	Day Ahead Congestion Rebate on Cash	55500-0000	-		-			-			-		-			-
	Day Ahead Congestion Rebate on Cash	55500-0000	-		-			-			-		-			-
Subtotal				654 624	90 525.00	654 624	(77 137.50)	115 809	15 975.00	115 809	(13 612.50)	15 750.00	201 710	29 545.63	201 710	(25 176.21)
Grand total			- 4 898 466.00	654 624	3 938 364.41	654 624	(830 896.30)	115 809	605 006.96	115 809	(146 593.47)	3 656 080.14	201 710	3 255 189.82	201 710	(721 122.43)

1/ All Administrative Charges reflected in the Retail column are now in the base rates (not recovered in the FPE)

2/ Accounts 55500 0051 through 55500 0053 are not recovered through the FPE

3/ Accounts 55500 0076 are not recovered through FPE for Resource Adequacy since it relates to capacity

NOTE:

DA and RT Asset Energy amounts have been reduced by the generation to load LMP differentials (RE) which are then shown in the Day Ahead Loss, Real Time Loss, Day Ahead Congestion and Real Time Congestion lines

Other Asset Related Sales includes liquidation sales which are not assessed MISO charges as all margins from liquidation sales are allocated to the FPE

DA and RT Asset Energy and DA and RT Non-Asset Energy is not allocated to MISO Non-Liquidation, MISO Liquidation, MISO Liquidation, MISO Liquidation and MISO Liquidation as these amounts are not tracked separately by Minnesota Power's systems

MISO MCHN HLY ALLOCA ON		Account	March 2023				MISO - L generation				Others - L generation				Others - Non L generation				Contract Sales			
		Number					M	Cost	M	Re a e	M	Cost	M	Re a e	M	Cost	M	Re a e	M	Cost	M	Re a e
Day Ahead and Real Time Energy																						
Day Ahead Asset Energy		700-0000 or 5500-0000 or 5500-0050	-																			
On - asset No - - asset E. & S		5500-0057	-																			
Real Time Asset Energy		700-0000 or 5500-0000 or 5500-0050	-																			
Excessive Energy Amount		5500-0056	-																			
Non-Excessive Energy Amount		5500-0066	-																			
Real Time Non-Asset Energy		5500-00-3	-																			
Subtotal				1 656								40 651				118 160						
Day Ahead and Real Time Energy Losses																						
Day Ahead Loss		700-0000 or 5500-0000 or 5500-0050	5 525.19 66											227 125.51	-	-	-	-	-	-	-	-
Day Ahead Financial Bilateral Transaction Loss		5500-0002	-											-	-	-	-	-	-	-	-	-
Real Time Loss		700-0000 or 5500-0000 or 5500-0050	-											-	-	-	-	-	-	-	-	-
Real Time Distribution of Losses		5500-00-1	230 000.00											-	-	9.6 : Q	-	-	-	-	-	-
Real Time Financial Bilateral Transaction Loss		5500-0038	-											-	-	-	-	-	-	-	-	-
Subtotal			5 295 419.66	1 656		1 656						40 651	227 125.51	40 651	9 644.40	118 160			118 160			
Virtual Energy																						
Day Ahead Virtual Energy		5500-0030	-																			
Real Time Virtual Energy		5500-00-9	-																			
Subtotal				1 656		1 656						40 651		40 651		118 160			118 160			
Administrative & Other																						
Day Ahead Market Administration (S&P, etc.)		5500-0020	1 000.00											6 038.23	-	-	-	-	-	-	-	-
Real Time Market Administration (S&P, etc.)		5500-0036	15 000.00											628.98	-	-	-	-	-	-	-	-
Financial Transaction Rights Market (FTR, etc.)		5500-0031	3 000.00											1 257	-	-	-	-	-	-	-	-
Subtotal			162 400.00	1 656		1 656						40 651	6 809.78	40 651		118 160			118 160			
Contract Sales & Other																						
Day Ahead Congestion		700-0000 or 5500-0000 or 5500-0050	-											-	-	-	-	-	-	-	-	-
Real Time Congestion		700-0000 or 5500-0000 or 5500-0050	-											-	-	-	-	-	-	-	-	-
Day Ahead Financial Bilateral Transaction Congestion		5500-0001	-											-	-	-	-	-	-	-	-	-
Real Time Financial Bilateral Transaction Congestion		5500-0037	-											-	-	-	-	-	-	-	-	-
Allocation Revenue Rights Transaction on -		5500-0058	-											-	-	-	-	-	-	-	-	-
Financial Transaction Rights Annual Transaction Amount		5500-0003	111 789.59											-	-	(9 : 32)	-	-	-	-	-	-
Allocation Revenue Rights In-state Upfront Amount		5500-0050	6 777.77											66.7	-	-	-	-	-	-	-	-
Financial Transaction Rights Stage 2 Distribution Amount		5500-0061	100 000.00											-	-	3,773.89	-	-	-	-	-	-
Financial Transaction Rights Hourly Allocation		5500-0032	812.26 : 71											-	-	(3 : 060.00)	-	-	-	-	-	-
Financial Transaction Rights Monthly Allocation		5500-0031	-											-	-	-	-	-	-	-	-	-
Financial Transaction Rights Yearly Allocation		5500-0036	-											-	-	-	-	-	-	-	-	-
Financial Transaction Rights Full Contract Quantity Amount		5500-0056	-											-	-	-	-	-	-	-	-	-
Financial Transaction Rights Full Contract Quantity Amount		5500-0056	-											-	-	-	-	-	-	-	-	-
Financial Transaction Rights Monthly Allocation		5500-0056	-											-	-	-	-	-	-	-	-	-
Financial Transaction Rights Transaction		5500-0056	-											-	-	-	-	-	-	-	-	-
Subtotal			904 363.00	1 656		1 656						40 651	406.74	40 651	138 328.23	118 160			118 160			
Risk & Make Whole Payments																						
Day Ahead Revenue Sufficiency Guarantee On-Call Transaction		5500-0028	25 000.00											1.0 8.30	-	-	-	-	-	-	-	-
Day Ahead Revenue Sufficiency Guarantee On-Call Transaction		5500-0028	113 000.00											-	-	(5 : 1.12)	-	-	-	-	-	-
Real Time Revenue Sufficiency Guarantee On-Call Transaction		5500-0057	15 000.00											-	-	(209.68)	-	-	-	-	-	-
Real Time Revenue Sufficiency Guarantee On-Call Transaction		5500-00-6	65 000.00											2,725.59	-	-	-	-	-	-	-	-
Real Time Revenue Sufficiency Guarantee Make Whole Payment		5500-00-7	118 000.00											-	-	(75 : 138)	-	-	-	-	-	-
Subtotal			54 000.00	1 656		1 656						40 651	3 773.89	40 651	(1 509.96)	118 160			118 160			
Other & Misc Charges																						
Real Time Miscellaneous		5500-00-2	-											-	-	-	-	-	-	-	-	-
Real Time Net Inadvertent Distribution		5500-00-4	(2 000.00)											-	-	(83.86)	-	-	-	-	-	-
Real Time Revenue Neutrality Upfront		5500-00-5	190 000.00											7,967.11	-	-	-	-	-	-	-	-
Real Time Revenue Neutrality Upfront		5500-00-8	-											-	-	-	-	-	-	-	-	-
Demand Response Allocation Upfront		5500-0077	9 000.00											377.38	-	-	-	-	-	-	-	-
Day Ahead Ramp Capability Amount		5500-0079	-											-	-	-	-	-	-	-	-	-
Real Time Ramp Capability Amount		5500-0080	-											-	-	-	-	-	-	-	-	-
Real Time Ramp Capability Amount		5500-0081	13 000.00											5 : 5.12	-	-	-	-	-	-	-	-
Subtotal			210 000.00	1 656		1 656						40 651	8 889.42	40 651	(83.86)	118 160			118 160			
Grandfathered Charge - Other																						
Day Ahead Congestion Rebate on Carve-Out Grandfathered		5500-0043	-											-	-	-	-	-	-	-	-	-
Day Ahead Losses Rebate on Carve-Out Grandfathered		5500-0002	-											-	-	-	-	-	-	-	-	-
Day Ahead Congestion Rebate on Carve-Out Grandfathered		5500-0005	-											-	-	-	-	-	-	-	-	-
Day Ahead Losses Rebate on Carve-Out Grandfathered		5500-0006	-											-	-	-	-	-	-	-	-	-
Real Time Congestion Rebate on Carve-Out Grandfathered		5500-00-9	-											-	-	-	-	-	-	-	-	-
Real Time Losses Rebate on Carve-Out Grandfathered		5500-0009	-											-	-	-	-	-	-	-	-	-
Real Time Congestion Rebate on Carve-Out Grandfathered		5500-0009	-											-	-	-	-	-	-	-	-	-
Subtotal				1 656		1 656						40 651		40 651		118 160			118 160			
ASM Charge - Other (2 Other)																						
Day Ahead Spinning Reserve Amount		5500-0062	(6 000.00)											-	-	2,883.60	-	-	-	-	-	-
Day Ahead Spinning Reserve Amount		5500-0061	1 300 000.00											-	-	(1,803.08)	-	-	-	-	-	-
Contingency Reserve Deployment Charge Amount		5500-0066	-											-	-	-	-	-	-	-	-	-
Real Time Short-Term Reserve Amount		5500-0068	-											-	-	-	-	-	-	-	-	-
Real Time Reserve Cost Distribution		5500-0070	17 000.00											712.85	-	-	-	-	-	-	-	-
Regulation Reserve Cost Distribution		5500-0071	16 000.00											1, 67.63	-	-	-	-	-	-	-	-
Real Time Excessive Demand		5500-0072	23 000.00											96 :	-	-	-	-	-	-	-	-
Real Time Spinning Reserve Amount		5500-0073	7 000.00											293.53	-	-	-	-	-	-	-	-
Spinning Reserve Cost Distribution		5500-0073	30 000.00											1,257.96	-	-	-	-	-	-	-	-
Real Time Supplemental Reserve Amount		5500-0077	-											-	-	-	-	-	-	-	-	-
Supplemental Reserve Cost Distribution on -		5500-0075	8 000.00											335. 6	-	-	-	-	-	-	-	-
Day Ahead Short-Term Reserve Amount		5500-0064	(1 000.00)											-	-	(587.05)	-	-	-	-	-	-
Real Time Short-Term Reserve Amount		5500-0064	3 000.00											125.80	-	-	-	-	-	-	-	-
Short-Term Reserve Cost Distribution		5500-0068	16 000.00											796.71	-	-	-	-	-	-	-	-
Short-Term Reserve Deployment Failure Charge Amount		5500-0085	-											-	-	-	-	-	-	-	-	-
Subtotal			21 000.00	1 656		1 656						40 651	5 954.37	40 651	5 073.79	118 160			118 160			
Grand total			4 848 266.60	1 656		1 656						40 651	752 359.91	40 651	64 829.83	118 160			118 160			

2/ All Account information charges reflected in the Retail column are now in the base rates (not recovered in the FPE)
3/ Accounts 55550 0551 and 5550 0553 are not recovered through the FPE
4/ Accounts 55550 0674 are not recovered through FPE for Resource adequacy LMP it relates to capacity
NOTE:
DA and RT Asset Energy amounts have been reduced by the generation load ramp differences (RE) which are shown in the Day Ahead Load, Real-time Load, Day Ahead Contract and Real-time Contract lines
Other Asset Based Sales includes liquidation on contracts which are not associated with ISO charges as a margin from liquidation sales as allocated to the FPE
RT Liquidation Energy and DA and RT Non-Asset Energy is not allocated to BidsMO, Low Liquidation or ISO Liquidation on. Others L-liquidation, Others Non-Liquidation and Contract sales for these amounts are not tracked separately against the FPE

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MISO NON-FLY ALLOCATIONS		Account Number	FPE Regain				FAC Regain				Subtotal FPE and FAC		MSO Non-Liquidation			
		May 2023	M	Cost	M	Re-e-e	M	Cost	M	Re-e-e	Cost/Re-e-e	M	Cost	M	Re-e-e	
Day Ahead and Real Time Energy																
15	Day Ahead Asset Energy	700-0000 or 55500-0000 or 55500-0000	-								-					
	DA Real Time - Real Time Energy	55500-0000	-								-					
13	Real Time Asset Energy	700-0000 or 55500-0000 or 55500-0000	-								-					
	Excessive Energy Amount	55500-0006	-								-					
22	Non-Excessive Energy Amount	55500-0009	-								-					
	Real Time Non-Asset Energy	55500-00-3	-								-					
Subtotal			602 844	0 00				110 690			-		300 049			
Day Ahead and Real Time Energy Loss																
16	Day Ahead Loss	700-0000 or 55500-0000 or 55500-0000	5,052.2 5.32	2 758 266.38	-			525.38 .07	-		3,283,650. 5		1 388 929.99	-		
	Day Ahead Financial Breakdown	55500-0002	-								-					
13	Real Time Loss	700-0000 or 55500-0000 or 55500-0000	-								-					
	Real Time Financial Breakdown	55500-0002	-								-					
36	Real Time Distribution of Losses	55500-00-1	(230 000.00)			(125 580.00)				23 920.00	(1 9 500.00)				(63 219.04)	
	Real Time Financial Breakdown	55500-0008	-								-					
Subtotal			4 822 245.32	602 844	2 758 266.38	602 844	(125 580.00)	110 690	525 384.07	110 690	23 920.00	3 134 150.45	300 049	1 388 929.99	300 049	(63 219.04)
Virtual Energy																
12	Day Ahead Virtual Energy	55500-0000	-								-					
	Real Time Virtual Energy	55500-00-9	-								-					
Subtotal			602 844		602 844			110 690		110 690			300 049		300 049	
Schedule 16-A 17-1																
19	Day Ahead Market Administration	55500-0000	1 000.00	78.62 .00	-			1 976.00	-		93,600.00		39 580.61	-		
	Real Time Market Administration	55500-0006	15,000.00	8,190.00	-			1,560.00	-		9,750.00		1,227.98	-		
19	Financial Transaction on Rights Market	55500-0001	3 00.00	1,656.00	-			353.60	-		2,110.00		83.5	-		
	Financial Transaction on Rights Market	55500-0001	-								-					
Subtotal			162 400.00	602 844	88 670.40	602 844	(125 580.00)	110 690	16 889.60	110 690	105 960.00	300 049	44 638.14	300 049		
Congestion Fines and Rebates																
18	Day Ahead Congestion	700-0000 or 55500-0000 or 55500-0000	-								-					
	Real Time Congestion	700-0000 or 55500-0000 or 55500-0000	-								-					
13	Day Ahead Financial Breakdown	55500-0002	-								-					
	Real Time Financial Breakdown	55500-0002	-								-					
25	Auction Revenue Right Transaction	55500-0007	-								-					
	Financial Transaction on Rights Market	55500-0008	-								-					
26	Auction Revenue Right Transaction	55500-0009	(11 788.59)			(6 36 57)		(1 226.01)		(7 662.58)		(3 2 0 28)				
	Auction Revenue Right Infeasible Upright	55500-0009	9 700.00	4 746.30	-			1 006.00	-		6 746.30		7 666.14	-		
26	Auction Revenue Right Stage 2	55500-0001	(90 000.00)			(9 1 0 00)		(9 360.00)		(58 500.00)		(2 737 88)				
	Financial Transaction on Rights Hourly	55500-0002	(8112.6 7)			(3 96. 6)		8 75 50		(527 971.90)		(223 263 38)				
19	Financial Transaction on Rights Monthly	55500-0003	-								-					
	Financial Transaction on Rights Yearly	55500-0006	-								-					
19	Financial Transaction on Rights Fuel	55500-0006	-								-					
	Financial Transaction on Rights Fuel	55500-0006	-								-					
19	Financial Transaction on Rights Monthly	55500-0006	-								-					
	Financial Transaction on Rights Monthly	55500-0006	-								-					
19	Financial Transaction on Rights	55500-0003	-								-					
	Financial Transaction on Rights	55500-0003	-								-					
Subtotal			(904 353.00)	602 844	5 296.20	602 844	(499 072.97)	110 690	1 008.80	110 690	95 061.52	(587 829.48)	300 049	2 666.19	300 049	(251 241.54)
MSO and Make-Whole Payments																
10	Day Ahead Revenue Surcharge	55500-0008	25 000.00	13 650.00	-			2 600.00	-		16 250.00		6 871.63	-		
	Day Ahead Revenue Surcharge	55500-0009	(13 000.00)	-		(7 088.00)		(1 352.00)		(6 50 08)		(3 973 25)				
10	Day Ahead Revenue Surcharge	55500-0007	-					(2 730.00)		(3 250.00)		(1 37 33)				
	Day Ahead Revenue Surcharge	55500-0007	-								-					
10	Day Ahead Revenue Surcharge	55500-0006	65 000.00	35 90 00	-			6 760.00	-		2 250.00		17 866.25	-		
	Day Ahead Revenue Surcharge	55500-0007	(18 000.00)	-		(9 828.00)		(1 872.00)		(11 700.00)		(9 7 89)				
Subtotal			54 000.00	602 844	49 140.00	602 844	(19 656.00)	110 690	9 360.00	110 690	(3 744.00)	35 100.00	300 049	24 737.00	300 049	(9 895.15)
MSO and Misc. Charges																
20	Real Time Net Inadvertent Distribution	55500-00-2	-								-					
	Real Time Net Inadvertent Distribution	55500-00-2	(2 000.00)			(1 092.00)		(208.00)		(1 300.00)		(5 9 73)				
21	Real Time Revenue Neutralization	55500-00-6	160 000.00	103 7 00	-			19 760.00	-		123 900.00		52 22 2	-		
	Real Time Revenue Neutralization	55500-00-8	-								-					
21	Real Time Revenue Neutralization	55500-0007	9 000.00	91 00	-			936.00	-		5 860.00		2 737.9	-		
	Real Time Revenue Neutralization	55500-0009	-								-					
21	Real Time Revenue Neutralization	55500-0009	-								-					
	Real Time Revenue Neutralization	55500-0009	-								-					
21	Real Time Revenue Neutralization	55500-0001	13 000.00	7 098.00	-			1 350.00	-		8 500.00		3 973.25	-		
	Real Time Revenue Neutralization	55500-0001	-								-					
Subtotal			210 000.00	602 844	115 752.00	602 844	(1 092.00)	110 690	22 048.00	110 690	(208.00)	136 900.00	300 049	58 271.46	300 049	(549 731)
Grand allocated charges - fees																
6	Day Ahead Congestion Rebate on Cash	55500-0003	-								-					
	Day Ahead Congestion Rebate on Cash	55500-0003	-								-					
7	Day Ahead Congestion Rebate on Cash	55500-0003	-								-					
	Day Ahead Congestion Rebate on Cash	55500-0003	-								-					
8	Day Ahead Congestion Rebate on Cash	55500-0003	-								-					
	Day Ahead Congestion Rebate on Cash	55500-0003	-								-					
9	Day Ahead Congestion Rebate on Cash	55500-0003	-								-					
	Day Ahead Congestion Rebate on Cash	55500-0003	-								-					
10	Day Ahead Congestion Rebate on Cash	55500-0003	-								-					
	Day Ahead Congestion Rebate on Cash	55500-0003	-								-					
11	Day Ahead Congestion Rebate on Cash	55500-0003	-								-					
	Day Ahead Congestion Rebate on Cash	55500-0003	-								-					
12	Day Ahead Congestion Rebate on Cash	55500-0003	-								-					
	Day Ahead Congestion Rebate on Cash	55500-0003	-								-					
13	Day Ahead Congestion Rebate on Cash	55500-0003	-								-					
	Day Ahead Congestion Rebate on Cash	55500-0003	-								-					
14	Day Ahead Congestion Rebate on Cash	55500-0003	-								-					
	Day Ahead Congestion Rebate on Cash	55500-0003	-								-					
15	Day Ahead Congestion Rebate on Cash	55500-0003	-								-					
	Day Ahead Congestion Rebate on Cash	55500-0003	-								-					
16	Day Ahead Congestion Rebate on Cash	55500-0003	-								-					
	Day Ahead Congestion Rebate on Cash	55500-0003	-								-					
17	Day Ahead Congestion Rebate on Cash	55500-0003	-								-					
	Day Ahead Congestion Rebate on Cash	55500-0003	-								-					
18	Day Ahead Congestion Rebate on Cash	55500-0003	-								-					
	Day Ahead Congestion Rebate on Cash	55500-0003	-								-					
19	Day Ahead Congestion Rebate on Cash	55500-0003	-								-					
	Day Ahead Congestion Rebate on Cash	55500-0003	-								-					
20	Day Ahead Congestion Rebate on Cash	55500-0003	-								-					
	Day Ahead Congestion Rebate on Cash	55500-0003	-								-					
21	Day Ahead Congestion Rebate on Cash	55500-0003	-								-					
	Day Ahead Congestion Rebate on Cash	55500-0003	-								-					
22	Day Ahead Congestion Rebate on Cash	55500-0003	-								-					
	Day Ahead Congestion Rebate on Cash	55500-0003	-								-					
23	Day Ahead Congestion Rebate on Cash	55500-0003	-								-					
	Day Ahead Congestion Rebate on Cash	55500-0003	-								-					
24	Day Ahead Congestion Rebate on Cash	55500-0003	-								-					
	Day Ahead Congestion Rebate on Cash	55500-0003	-								-					
25	Day Ahead Congestion Rebate on Cash	55500-0003	-								-					
	Day Ahead Congestion Rebate on Cash	55500-0003	-								-					
26	Day Ahead Congestion Rebate on Cash	55500-0003	-								-					
	Day Ahead Congestion Rebate on Cash	55500-0003	-								-					
27	Day Ahead Congestion Rebate on Cash	55500-0003	-								-					
	Day Ahead Congestion Rebate on Cash	55500-0003	-								-					
28	Day Ahead Congestion Rebate on Cash	55500-0003	-								-					
	Day Ahead Congestion Rebate on Cash	55500-0003	-								-					
29	Day Ahead Congestion Rebate on Cash	55500-0003	-								-					
	Day Ahead Congestion Rebate on Cash	55500-0003	-								-					
30	Day Ahead Congestion Rebate on Cash	55500-0003	-								-					
	Day Ahead Congestion Rebate on Cash	55500-0003	-													

May 23

MINNESOTA POWER		Account Number	FPE Regain				FAC Regain				Subtotal FPE and FAC		MSO Non-Liquidation			
MISO NON-FLY ALLOCATION		Line 2022	M	Cost	M	Re-e-e	M	Cost	M	Re-e-e	M	Cost	M	Cost	M	Re-e-e
Day Ahead and Real Time Energy																
Day Ahead Asset Energy		700-0000 or 55500-0000 or 55500-0000	-								-					
DA Real Time - Total E & S		55500-0007	-								-					
Real Time Asset Energy		700-0000 or 55500-0000 or 55500-0000	-								-					
Excessive Energy Amount		55500-0006	-								-					
Non-Excessive Energy Amount		55500-0006	-								-					
Real Time Non-Asset Energy		55500-00-3	-								-					
Subtotal			585 530	0 00			101 064				-		232 800			
Day Ahead and Real Time Energy Loss																
Day Ahead Loss		700-0000 or 55500-0000 or 55500-0000	10,921,888.60		6,331,739.39	-		1,117,365.78	-	7, 9,105.17			2,575,508.7			-
Day Ahead Financial Breakdown		55500-0007	-								-					-
Real Time Loss		700-0000 or 55500-0000 or 55500-0000	-								-					-
Real Time Financial Breakdown		55500-0007	-								-					-
Real Time Distributional Losses		55500-00-1	(230,000.00)			(132 9 0 00)			21 60 00		(156 00 00)				(53 990 25)	
Real Time Financial Breakdown		55500-0038	-								-					-
Subtotal			10,691,888.60	585 530	6,331,739.39	585 530	(132 940 00)	101 064	1,117,365.78	101 064	23 460 00	7 282 705 17	232 800	2 547 508 74	232 800	(53 990 25)
Virtual Energy																
Day Ahead Virtual Energy		55500-0030	-								-					
Real Time Virtual Energy		55500-00-9	-								-					
Subtotal				585 530		585 530		101 064		101 064			232 800		232 800	
Schedule 16-A 12-11																
Day Ahead Market Administration		55500-0002	1,000.00		83,232.00	-		1,688.00	-			97,920.00		33,802.62		-
Real Time Market Administration		55500-0036	15,000.00		8,670.00	-		1,530.00	-			10,200.00		3,521.11		-
Financial Transaction on Rights Market		55500-0031	3,000.00		1,955.20	-		3,680	-			2,312.00		788.12		-
Subtotal			162,400.00	585 530	93,867.20	585 530		101 064	16,564.80	101 064		110,432.00	232 800	38,121.84	232 800	
Congestion Fines & Rebates																
Day Ahead Congestion		700-0000 or 55500-0000 or 55500-0000	-								-					
Real Time Congestion		700-0000 or 55500-0000 or 55500-0000	-								-					
Day Ahead Financial Breakdown		55500-0007	-								-					
Real Time Financial Breakdown		55500-0007	-								-					
Auction Revenue Right Transaction		55500-0008	-								-					
Financial Transaction on Rights Annual		55500-0008	(11,788,599)			(8,813,813)		(1,202)			(8,036.2)				(2,787,281)	
Auction Revenue Right Infeasible Uplift Amount		55500-0009														
Auction Revenue Right Stage 2		55500-0009														
Financial Transaction on Rights Hourly Allocation		55500-0004	(90,000.00)			(52,020.00)		(9,180.00)			(61,200.00)				(21,126.6)	
Financial Transaction on Rights Monthly Allocation		55500-0002	(812.26 7)			(69,888)		(82,850.98)			(562,339.8)				(190,671.28)	
Financial Transaction on Rights Yearly Allocation		55500-0003	-								-					
Financial Transaction on Rights Fuel Allocation		55500-0005	-								-					
Financial Transaction on Rights Fuel Allocation		55500-0005	-								-					
Financial Transaction on Rights Fuel Allocation		55500-0005	-								-					
Financial Transaction on Rights Fuel Allocation		55500-0005	-								-					
Financial Transaction on Rights Fuel Allocation		55500-0005	-								-					
Subtotal			(904,353.06)	585 530	5,606.60	585 530	(528,322.67)	101 064	989.40	101 064	93,233.41	(614,960.08)	232 800	2,276.98	232 800	(214,565.18)
MSO & Make Whole Payments																
Day Ahead Revenue Surcharge		55500-0008	25,000.00		1,500.00			2,500.00			17,000.00		5,868.51			(3,051.63)
Day Ahead Revenue Surcharge		55500-0008	(13,000.00)			(7,51.00)		(1,326.00)			(8.8 0.00)					(1,173.70)
Real Time Revenue Surcharge		55500-0007	(5,000.00)			(2,890.00)		6,100.00			(3 00.00)					
Real Time Revenue Surcharge		55500-00-4	65,000.00		37,570.00			6,630.00			300.00		15,258.13			(2,251.30)
Subtotal			54,000.00	585 530	52,020.00	585 530	(29,808.00)	101 064	9,180.00	101 064	(3,672.00)	36,720.00	232 800	21,126.64	232 800	(8,490.95)
MSO & Misc. Charges																
Real Time Net Inadvertent Distribution		55500-00-2	(2,000.00)			(1,156.00)			(20.00)		(1,360.00)				(69.81)	
Real Time Revenue Neutral Uplift		55500-00-5	100,000.00		109,820.00			19,380.00			129,200.00		600.68			
Real Time Unintended Distribution		55500-00-8	-								-					
Demand Response Allocation Uplift		55500-0077	9,000.00		5,202.00			918.00			6,120.00		2,112.66			
Day Ahead Ramp Capacity Amount		55500-0079	-								-					
Real Time Ramp Capacity Amount		55500-0080	-								-					
Subtotal			13,000.00	585 530	122,536.00	585 530	(1,156.00)	101 064	21,624.00	101 064	(204.00)	142,800.00	232 800	49,764.96	232 800	(469.48)
Grand allocated charges - fees																
Day Ahead Congestion Rebate on Capacity		55500-0003	-								-					
Day Ahead Losses Rebate on Capacity		55500-0002	-								-					
Day Ahead Congestion Rebate on Capacity		55500-0005	-								-					
Day Ahead Losses Rebate on Capacity		55500-0005	-								-					
Real Time Losses Rebate on Capacity		55500-0005	-								-					
Real Time Losses Rebate on Capacity		55500-0005	-								-					
Real Time Losses Rebate on Capacity		55500-0005	-								-					
Subtotal				585 530		585 530		101 064		101 064			232 800		232 800	
ASR Charges - fees (2022)																
Day Ahead Spinning Reserve Amount		55500-0002	(6,000.00)			(36,982.00)			(6,528.00)		(3,520.00)				(15,023.98)	
Day Ahead Supplemental Reserve Amount		55500-0003	(3,000.00)			(2,85 00)			(386.00)		(29.2 0.00)				(10,093.81)	
Contingency Reserve Deployment		55500-0008	-								-					
Failed Charge Amount		55500-0008	-								-					
Real Time Reserve Cost Distribution		55500-0075	17,000.00		9,036.00			1,73 00			11,960.00		3,990.59			
Regulate on Reserve Cost Distribution		55500-0071	16,000.00		9,190.00			1,430.00			9,190.00		8,714.91			
Real Time Excessive Dispatch		55500-0067	23,000.00		13,29 00			2,3 6.00			15.6 0.00		5,399.03			
Real Time Spinning Reserve Amount		55500-0077	7,000.00		0 6.00			71 00			.760.00		16 3.18			
Spinning Reserve Cost Distribution		55500-0075	30,000.00		17.3 0.00			3,060.00			20 00.00		7 0 2.21			
Real Time Supplemental Reserve Amount		55500-0007	-								-					
Supplemental Reserve Cost Distribution		55500-0075	8,000.00		62 00			816.00			5 0.00		1,877.82			
Day Ahead Short-Term Reserve Amount		55500-0002	(1,000.00)			(8,092.00)			(1,28.00)		(9,520.00)				(3,286.37)	
Real Time Short-Term Reserve Amount		55500-0008	3,000.00		1 73 00			306.00			2.0 0.00		70 22			
Short-Term Reserve Cost Distribution		55500-0075	16,000.00		10,867.00			1,968.00			17,800.00		40,017			
Short-Term Reserve Deployment Failure Charge Amount		55500-0085	-								-					
Subtotal			21,000.00	585 530	82,076.00	585 530	(89,938.00)	101 064	14,484.00	101 064	(12,342.00)	14,280.00	232 800	33,333.34	232 800	(28,403.58)
Grand Total			10,214,938.54	585 530	6,887,845.19	585 530	(759,164.67)	101 064	1,180,207.98	101 064	(132,911.41)	6,981,977.09	232 800	2,892,132.30	232 800	(1,905,879.18)

1/ All Administrative Charges reflected in the Retail column are now in the base rates (not recovered in the FPE)

2/ Accounts 55500-0051 through 55500-0053 are not recovered through the FPE

3/ Accounts 55500-0076 are not recovered through FPE for Resource Adequacy since it relates to capacity

NOTE:

DA and RT Asset Energy amounts have been reduced by the generation to load LMP differentials (RE) which are then shown in the Day Ahead Loss, Real Time Loss, Day Ahead Congestion and Real Time Congestion lines

Other Asset Related Sales includes liquidation sales which are not assessed MISO charges as all margins from liquidation sales are allocated to the FPE

DA and RT Asset Energy and DA and RT Non-Asset Energy is not allocated to MISO Non-Liquidation, MISO Liquidation, Others-Liquidation, Others-Non-Liquidation and Contract sales as these amounts are not tracked separately by Minnesota Power's systems

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MINNESOTA POWER		Account Number	July 2023	FPE Regain				FAC Regain				Subtotal FPE and FAC		MSO Non-Liquidation			
MSO NON-FLY ALLOCATIONS				M	Credit	M	Debit	M	Credit	M	Debit	M	Credit	M	Credit	M	Debit
Day Ahead and Real Time Energy																	
Day Ahead Asset Energy		700-0000 or 55500-0000 or 55500-0000	-									-					
15	DA Real Time - Real Time	55500-0000	-									-					
Real Time Asset Energy		700-0000 or 55500-0000 or 55500-0000	-									-					
135	Excessive Energy Amount	55500-0000	-									-					
Non-Excessive Energy Amount		55500-0000	-									-					
22	Real Time Non-Asset Energy	55500-00-3	-									-					
Subtotal				629 436	0 00			109 087				-		196 132			
Day Ahead and Real Time Energy Loss																	
Day Ahead Loss		700-0000 or 55500-0000 or 55500-0000	10,251,330.67		6.2	756.93	-		1,302,015.93	-		7.3	6,772.86		1,979.9	1.88	-
16	Day Ahead Financial Benefit	55500-0000	-									-					
Real Time Loss		700-0000 or 55500-0000 or 55500-0000	-									-					
135	Real Time Financial Benefit	55500-0000	-									-					
16	Real Time Distributional Losses	55500-00-1	(230,000.00)				(1,076.00)				2,800.00	(165,600.00)				(3,877.20)	
Real Time Financial Benefit		55500-0038	-									-					
Subtotal			10,021,330.67	629 436	6,244,756.93	629 436	(140,760.00)	109 087	1,302,015.93	109 087	24,840.00	7,181,172.86	196 132	1,979,941.88	196 132	(43,877.20)	
Virtual Energy																	
Day Ahead Virtual Energy		55500-0030	-									-					
17	Real Time Virtual Energy	55500-00-9	-									-					
Subtotal				629 436		629 436		109 087		109 087				196 132		196 132	
Schedule 16-A 12-11																	
Day Ahead Market Administration		55500-0000	1,000.00			88,128.00	-		15,552.00	-		103,680.00		27,709.9		-	
19	Real Time Market Administration	55500-0036	15,000.00			9,180.00	-		1,620.00	-		10,800.00		2,861.56		-	
29	Financial Transaction on Rights Market	55500-0031	(3,000.00)			2,080.80	-		367.20	-		2,800.00		6,882		-	
Subtotal			162,400.00	629 436	99,388.80	629 436		109 087	17,539.20	109 087		116,928.00	196 132	30,981.12	196 132		
Congestion Firms & Bids																	
Day Ahead Congestion		700-0000 or 55500-0000 or 55500-0000	-									-					
135	Real Time Congestion	700-0000 or 55500-0000 or 55500-0000	-									-					
Day Ahead Financial Benefit		55500-0000	-									-					
15	Real Time Financial Benefit	55500-0000	-									-					
Auction Revenue Right Transaction		55500-0000	-									-					
Financial Transaction on Rights Annual		55500-0000	(11,788.59)			(7,211.60)			(1,273.17)		(8,877.79)				(2,281.91)		
Auction Revenue Right Infeasible Up to Amount		55500-0000	9,700.00			4,136.00			1,617.00		4,080.00			1,900.00			
Auction Revenue Right Stage 2		55500-0000	(90,000.00)			(55,080.00)			(9,720.00)		(6,800.00)			(17,169.31)			
28	Financial Transaction on Rights Monthly Allocation	55500-0000	(812.26)			(97,105.88)			(87,721.56)		(98,430.21)			(15,956.01)			
30	Financial Transaction on Rights Yearly Allocation	55500-0000	-									-					
Financial Transaction on Rights Full Capacity Customer Amount		55500-0000	-									-					
Full Capacity Up to Amount		55500-0000	-									-					
31	Financial Transaction on Rights Full Capacity	55500-0000	(904,353.00)	629 436	5,936.40	629 436	(559,400.47)	109 087	1,047.60	109 087	98,717.73	(651,134.20)	196 132	1,950.47	196 132	(174,374.29)	
MSO & Make Whole Payments																	
Day Ahead Revenue Surcharge		55500-0000	25,000.00			15,300.00	-		2,700.00	-		18,000.00		769.26		(2,800.00)	
10	Day Ahead Revenue Surcharge	55500-0000	(13,000.00)			(7,956.00)	-		(1,000.00)	-		(9,360.00)				(953.85)	
Real Time Revenue Surcharge		55500-0000	(5,000.00)			(3,060.00)	-		(6,000.00)	-		(6,800.00)		12,000.00			
2	Real Time Revenue Surcharge	55500-00-4	65,000.00			39,760.00	-		7,020.00	-		6,800.00				(3,387.87)	
Real Time Revenue Surcharge		55500-00-7	(18,000.00)			(11,516.00)	-		(1,900.00)	-		(12,960.00)					
Subtotal			54,000.00	629 436	55,980.00	629 436	(22,032.00)	109 087	9,720.00	109 087	(3,888.00)	38,880.00	196 132	17,169.34	196 132	(6,867.74)	
MSO & Misc. Charges																	
Real Time Market Administration		55500-00-2	-									-					
21	Real Time Net Inadvertent Distribution	55500-00-5	(2,000.00)			(1,221.00)			(216.00)		(1,000.00)					(381.51)	
Real Time Revenue Neutral by Up to		55500-00-8	100,000.00			116,280.00	-		20,520.00	-		136,800.00		36.2	6.38		
26	Real Time Unintended Distribution	55500-00-8	-									-					
Demand Response Allocation by Up to		55500-0077	9,000.00			5,108.00	-		972.00	-		6,800.00		1,716.93			
33	Day Ahead Ramp Capacity by Amount	55500-0079	-									-					
Real Time Ramp Capacity by Amount		55500-0086	-									-					
Subtotal			210,000.00	629 436	129,744.00	629 436	(1,224.00)	109 087	22,896.00	109 087	(216.00)	151,200.00	196 132	40,443.33	196 132	(381.54)	
Grand allocated charges - fees																	
Day Ahead Congestion Rebate on Capacity		55500-0000	-									-					
6	Day Ahead Congestion Rebate on Capacity	55500-0000	-									-					
Day Ahead Congestion Rebate on Capacity		55500-0000	-									-					
7	Day Ahead Congestion Rebate on Capacity	55500-0000	-									-					
Day Ahead Congestion Rebate on Capacity		55500-0000	-									-					
17	Real Time Congestion Rebate on Capacity	55500-0000	-									-					
Real Time Congestion Rebate on Capacity		55500-0000	-									-					
Subtotal				629 436	86,904.00	629 436	(74,052.00)	109 087	15,336.00	109 087	(140,760.00)	15,120.00	196 132	27,089.40	196 132	(23,083.23)	
MSO Charges - fees (2023)																	
Day Ahead Short-Term Reserve		55500-0002	(6,000.00)			(39,168.00)	-		(6,912.00)	-		(6,980.00)				(12,209.31)	
Day Ahead Spinning Reserve Amount		55500-0003	(3,000.00)			(26,316.00)	-		(3,840.00)	-		(30,960.00)				(8,203.13)	
Day Ahead Supplemental Reserve		55500-0006	-									-					
Contingency Reserve Deployment		55500-0008	-									-					
Future Charge Amount		55500-0009	-									-					
Real Time Reserve by Amount		55500-0010	17,000.00			10,000.00	-		1,836.00	-		12.2	0.00		3.2	3.10	
Regulate on Reserve Cost Distribution		55500-0011	16,000.00			9,100.00	-		1,780.00	-		14,900.00		4,476.06			
Real Time Excessive Demand		55500-0012	23,000.00			1,076.00	-		2,800.00	-		16,560.00		387.72			
Real Time Spinning Reserve Amount		55500-0013	7,000.00			28.00	-		756.00	-		5.0	0.00		1,335.39		
Spinning Reserve Cost Distribution		55500-0015	30,000.00			19,360.00	-		3,200.00	-		21,600.00		5,723.11			
Real Time Supplemental Reserve		55500-0017	-									-					
Supplemental Reserve Cost Distribution		55500-0019	8,000.00			896.00	-		86.00	-		5,760.00		1,526.16			
Day Ahead Short-Term Reserve		55500-0022	(1,000.00)			(8,568.00)	-				(1,512.00)	(10,080.00)				(2,670.79)	
Real Time Short-Term Reserve		55500-0023	-									-					
Short-Term Reserve Cost Distribution		55500-0024	16,000.00			11,436.00	-		7,000.00	-		11,480.00		5,631.41			
Short-Term Reserve Deployment Future		55500-0025	-									-					
Subtotal			21,000.00	629 436	86,904.00	629 436	(74,052.00)	109 087	15,336.00	109 087	(140,760.00)	15,120.00	196 132	27,089.40	196 132	(23,083.23)	
Grand Total			9,964,377.61	629 436	6,921,810.13	629 436	(797,468.47)	109 087	1,168,554.71	109 087	(140,728.73)	6,852,166.66	196 132	2,006,475.54	196 132	(248,583.99)	

1/ All Administrative Charges reflected in the Retail column are now in the base rates (not recovered in the FPE)

2/ Accounts 55500-0051 through 55500-0053 are not recovered through the FPE

3/ Accounts 55500-0076 are not recovered through FPE for Resource Adequacy since it relates to capacity

NOTE:

DA and RT Asset Energy amounts have been reduced by the generation to load LMP differentials (RE) which are then shown in the Day Ahead Loss, Real Time Loss, Day Ahead Congestion and Real Time Congestion lines

Other Asset Related Sales includes liquidation sales which are not assessed MISO charges as all margins from liquidation sales are allocated to the FPE

DA and RT Asset Energy and DA and RT Non-Asset Energy is not allocated to MISO Non-Liquidation, MISO Liquidation, MISO Liquidation, MISO Liquidation and MISO Liquidation as these amounts are not tracked separately by Minnesota Power's systems

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MINNESOTA POWER		Account Number	FPE Regain				FAC Regain				Subtotal FPE and FAC		MSO Non-Liquidation			
MISO NON-FLY ALLOCATIONS		August 2023	M	Credit	M	Debit	M	Credit	M	Debit	M	Credit	M	Credit	M	Debit
Day Ahead and Real Time Energy																
Day Ahead Asset Energy		700-0000 or 55500-0000 or 55500-0000	-								-					
15	DA Real Time - Real Time Energy	55500-0000	-								-					
Real Time Asset Energy		700-0000 or 55500-0000 or 55500-0000	-								-					
135	Excessive Energy Amount	55500-0000	-								-					
Non-Excessive Energy Amount		55500-0000	-								-					
22	Real Time Non-Asset Energy	55500-00-3	-								-					
Subtotal			624 608	0 00			107 003				-		154 700			
Day Ahead and Real Time Energy Loss																
Day Ahead Loss		700-0000 or 55500-0000 or 55500-0000	-								-					
16	Day Ahead Financial Breakdown	55500-0000	9, 20,126.19	5 973 57.73	-		1.05, 160.25	-			7,027.73.98		1,517,360.19	-		
Real Time Loss		700-0000 or 55500-0000 or 55500-0000	-								-					
135	Real Time Financial Breakdown	55500-0000	-								-					
16	Real Time Financial Breakdown	55500-0000	(230,000.00)		(1, 6, 625.00)				25,875.00		(172,900.00)			(36,332.36)		
Subtotal			9, 199,126.19	624 608	5 973 574.73	624 608	(146, 625.00)	107 003	1, 054, 160.25	107 003	25, 875.00	6, 855, 234.98	154 700	1, 517, 360.19	154 700	(36, 332.36)
Virtual Energy																
Day Ahead Virtual Energy		55500-0000	-								-					
27	Real Time Virtual Energy	55500-00-9	-								-					
Subtotal			624 608		624 608			107 003		107 003			154 700		154 700	
Schedule 16-A 17-1																
Day Ahead Market Administration		55500-0000	1, 000.00		91,800.00	-			16,200.00	-		108,000.00		22, 7, 7.22	-	
19	Real Time Market Administration	55500-0000	15,000.00		9,562.50	-			1,687.50	-		11,250.00		2,369.50	-	
29	Financial Transaction on Rights Market	55500-0000	3, 00.00		2,167.50	-			382.50	-		2,550.00		537.00	-	
Subtotal			162,400.00	624 608	103,530.00	624 608		107 003	18,270.00	107 003		121,800.00	154 700	25,653.81	154 700	
Congestion Fines and Rebates																
Day Ahead Congestion		700-0000 or 55500-0000 or 55500-0000	-								-					
135	Real Time Congestion	700-0000 or 55500-0000 or 55500-0000	-								-					
Day Ahead Financial Breakdown		55500-0000	-								-					
15	Real Time Financial Breakdown	55500-0000	-								-					
Auction Revenue Right Transaction		55500-0000	-								-					
28	Financial Transaction on Rights Monthly	55500-0000	(11,788.59)		(7,515.28)				(1,326.22)		(8,811.1)			(1,882.21)		
Auction Revenue Right Infeasible Uplift Amount		55500-0000	-								-					
30	Auction Revenue Right Stage 2	55500-0000	9,700.00		6,145.74				1,654.26		7,774.00		1,470.76			
Financial Transaction on Rights Monthly		55500-0000	(90,000.00)		(57,375.00)				(10,125.00)		(87,900.00)			(1, 217.01)		
28	Financial Transaction on Rights Monthly	55500-0000	(812.26, 7)		(517,818.68)				91,379.79		(809,198.38)			(128,310.81)		
Financial Transaction on Rights Yearly		55500-0000	-								-					
30	Financial Transaction on Rights Yearly	55500-0000	-								-					
Financial Transaction on Rights Full		55500-0000	-								-					
31	Financial Transaction on Rights Full	55500-0000	-								-					
Subtotal			(904,353.00)	624 608	6,183.75	624 608	(582,708.82)	107 003	1,091.25	107 003	(102,830.97)	(879,264.79)	154 700	1,532.28	154 700	(144,390.02)
MSO & Make-Whole Payments																
Day Ahead Revenue Surcharge		55500-0000	25,000.00		15,937.50	-			2,812.50	-		18,750.00		3, 9, 1.17	-	
10	Day Ahead Revenue Surcharge	55500-0000	(13,000.00)		(8,287.50)	-			(1, 62.50)	-		(9,750.00)		(2, 053.57)	-	
Real Time Revenue Surcharge		55500-0000	(5,000.00)		(3,187.50)	-			(662.50)	-		(3,750.00)		(789.83)	-	
2	Real Time Revenue Surcharge	55500-00-4	65,000.00		1, 37.50	-			7,312.50	-		8,750.00		10,267.8	-	
25	Guarantee Make-Whole Payments	55500-00-7	(18,000.00)		(11, 75.00)	-			(2, 053.50)	-		(13,500.00)		(2, 8, 3, 9)	-	
Subtotal			54,000.00	624 608	57,375.00	624 608	(22,950.00)	107 003	10,125.00	107 003	(4,950.00)	40,900.00	154 700	14,217.01	154 700	(5,686.80)
MSO & Misc. Charges																
Real Time MISO Auction		55500-00-2	-								-					
21	Real Time Net Inadvertent Distribution	55500-00	(2,000.00)		(1,275.00)				(225.00)		(1,900.00)			(315.93)		
Real Time Revenue Neutral by Uplift		55500-00-5	100,000.00		121,125.00	-			21,375.00	-		1, 2, 500.00		30,013.69	-	
Real Time Uninsured Distribution		55500-00-8	-								-					
27	Demand Response Allocation Uplift	55500-0077	9,000.00		5,737.50	-			1,012.50	-		6,750.00		1, 21.70	-	
Day Ahead Ramp Capacity Amount		55500-0079	-								-					
33	Real Time Ramp Capacity Amount	55500-0086	-								-					
Subtotal			13,000.00	624 608	8,287.50	624 608	(1, 275.00)	107 003	23,850.00	107 003	(225.00)	157,900.00	154 700	33,488.96	154 700	(315.93)
Grand allocated charges - fees																
Day Ahead Congestion Rebate on Cash		55500-0000	-								-					
6	Day Ahead Congestion Rebate on Cash	55500-0000	-								-					
Day Ahead Congestion Rebate on Cash		55500-0000	-								-					
7	Day Ahead Congestion Rebate on Cash	55500-0000	-								-					
Day Ahead Congestion Rebate on Cash		55500-0000	-								-					
17	Day Ahead Congestion Rebate on Cash	55500-0000	-								-					
Day Ahead Congestion Rebate on Cash		55500-0000	-								-					
18	Day Ahead Congestion Rebate on Cash	55500-0000	-								-					
Subtotal			624 608		624 608			107 003		107 003			154 700		154 700	
ASR Charges - fees (2023)																
Day Ahead Spinning Reserve Amount		55500-0000	(6, 000.00)	-	(1, 9, 800.00)	-			(7, 200.00)	-		(8,000.00)	-	(10,129.87)	-	
Day Ahead Supplemental Reserve		55500-0000	(3, 000.00)	-	(27, 12.50)	-			(37, 50)	-		(32,250.00)	-	(6,792.57)	-	
Congestion Reserve Deployment		55500-0000	-								-					
Failed Charge Amount		55500-0000	-								-					
Real Time Reserve Cost Distribution		55500-0000	17,000.00		10,837.50	-			1,912.50	-		12,750.00		2,685	-	
Regulate on Reserve Cost Distribution		55500-0071	(6, 000.00)		(7, 917.50)	-			(9, 917.50)	-		(14, 835.00)		(1, 436.8)	-	
Real Time Excessive Demand		55500-0000	23,000.00		1, 662.50	-			2,587.50	-		17,250.00		3,633.2	-	
Real Time Spinning Reserve Amount		55500-0077	7,000.00		62.50	-			787.50	-		5,250.00		1,105.77	-	
Spinning Reserve Cost Distribution		55500-0075	30,000.00		19,125.00	-			3,375.00	-		22,500.00		739.00	-	
Real Time Supplemental Reserve		55500-0000	-								-					
Supplemental Reserve Cost Distribution		55500-0079	8,000.00		5,100.00	-			900.00	-		6,000.00		1,263.73	-	
Day Ahead Short-Term Reserve Amount		55500-0000	(1, 000.00)		(8,925.00)	-			(1,575.00)	-		(10,500.00)	-	(2,211.53)	-	
Real Time Short-Term Reserve Amount		55500-0000	3,000.00		1,912.50	-			337.50	-		2,250.00		73.90	-	
Short-Term Reserve Cost Distribution		55500-0000	19,000.00		17,117.50	-			7,117.50	-		1, 940.00		5,000.12	-	
Subtotal			21,000.00	624 608	90,525.00	624 608	(77,137.50)	107 003	15,975.00	107 003	(13,612.50)	15,750.00	154 700	22,431.28	154 700	(19,113.88)
Grand Total			8,762,173.12	624 608	6,365,338.48	624 608	(830,696.30)	107 003	1,122,471.50	107 003	(146,593.47)	6,512,920.18	154 700	1,614,683.52	154 700	(705,839.10)

1/ All Administrative Charges reflected in the Retail column are now in the base rates (not recovered in the FPE)

2/ Accounts 55500-0051 through 55500-0053 are not recovered through the FPE

3/ Accounts 55500-0076 are not recovered through FPE for Resource Adequacy since it relates to capacity

NOTE:

DA and RT Asset Energy amounts have been reduced by the generation to load LMP differentials (RE) which are then shown in the Day Ahead Loss, Real Time Loss, Day Ahead Congestion and Real Time Congestion lines

Other Asset Related Sales includes liquidation sales which are not assessed MISO charges as all margins from liquidation sales are allocated to the FPE

DA and RT Asset Energy and DA and RT Non-Asset Energy is not allocated to MISO Non-Liquidation, MISO Liquidation, MISO Liquidation, Others-Liquidation, Others-Non-Liquidation and Contract sales as these amounts are not tracked separately by Minnesota Power's systems

MINNESOTA POWER		Account		MISO MCHN - L. Allocation				Others - L. Allocation				Others - Reg. L. Allocation				Contract Sales			
MISO MCHN - L. Allocation		Number	August 2022	M	Cost	M	Re s. e.	M	Cost	M	Re s. e.	M	Cost	M	Re s. e.	M	Cost	M	Re s. e.
Day Ahead and Real Time Energy																			
Day Ahead Asset Energy		700-0000 or 5500-0000 or 5500-0000	-																
On - sold No - sold E. s. e.		5500-0007	-																
Real Time Asset Energy		700-0000 or 5500-0000 or 5500-0000	-																
Excessive Energy Amount		5500-0006	-																
Non-Excessive Energy Amount		5500-0006	-																
Real Time Non-Asset Energy		5500-00-3	-																
Subtotal				299						90 130					113 577				
Day Ahead and Real Time Energy Losses																			
Day Ahead Loss		700-0000 or 5500-0000 or 5500-0000	9, 29, 126, 19							88, 031.02		-		-	-				
Day Ahead Financial Bilateral Transaction Loss		5500-0002	-																
Real Time Loss		700-0000 or 5500-0000 or 5500-0000	-																
Real Time Distribution of Losses		5500-00-1	230 000.00												(21,167.6)				
Real Time Financial Bilateral Transaction Loss		5500-0008	-																
Subtotal			9 199 126 19	299		299				90 130	884 031.02	90 130	(21 167.64)		113 577			113 577	
Virtual Energy																			
Day Ahead Virtual Energy		5500-0000	-																
Real Time Virtual Energy		5500-00-9	-																
Subtotal				299		299				90 130		90 130			113 577			113 577	
Schedule 16A-17 - M																			
Day Ahead Market Administration		5500-0000	1 000.00									13,252.78	-		-			-	
Real Time Market Administration		5500-0006	15 000.00									1,380.50			-			-	
Financial Transaction Rights Market		5500-0001	3 000.00									312.81	-		-			-	
Subtotal			162 400.00	299		299				90 130	14 946.19	90 130			113 577			113 577	
Congestion, Financial Rights, and Other																			
Day Ahead Congestion		700-0000 or 5500-0000 or 5500-0000	-																
Real Time Congestion		700-0000 or 5500-0000 or 5500-0000	-																
Day Ahead Financial Bilateral Transaction Congestion		5500-0001	-																
Real Time Financial Bilateral Transaction Congestion		5500-0002	-																
Financial Transaction Rights Transaction		5500-0004	-																
Financial Transaction Rights Annual Transaction Amount		5500-0005	(11 788.59)									(1.08 - 9)			-			-	
Financial Transaction Rights in Establish Upth Amount		5500-0005	9 000.00									892.72			-			-	
Financial Transaction Rights Stage 2 Distribution Amount		5500-0006	(80 000.00)												8,282.99			-	
Financial Transaction Rights Hourly Allocation		5500-0002	812.26 - 71									(7, 755.31)			-			-	
Financial Transaction Rights Monthly Allocation		5500-0001	-												-			-	
Financial Transaction Rights Yearly Allocation		5500-0006	-												-			-	
Financial Transaction Rights Full Distribution Amount		5500-0006	-												-			-	
Financial Transaction Rights Hourly Allocation		5500-0006	-												-			-	
Financial Transaction Rights Monthly Allocation		5500-0006	-												-			-	
Financial Transaction Rights Yearly Allocation		5500-0006	-												-			-	
Financial Transaction Rights Full Distribution Amount		5500-0006	-												-			-	
Subtotal			904 363.00	299		299				90 130	892.72	90 130	(84 123.24)		113 577			113 577	
RSC & Make Whole Payments																			
Day Ahead Revenue Sufficiency		5500-0006	25 000.00									2,300.83	-		-			-	
Guarantee Distribution		5500-0008	(13 000.00)										(1,196.3)		-			-	
Real Time Price Volatility Make Whole Payments		5500-0007	(5 000.00)										(60.17)		-			-	
Real Time Revenue Sufficiency		5500-00-6	65 000.00									5,982.16			-			-	
Guarantee Make Whole Payment		5500-00-7	(18 000.00)									(1,656.05)			-			-	
Subtotal			54 000.00	299		299				90 130	8 282.99	90 130	(3 313.29)		113 577			113 577	
RSC & Misc Charges																			
Real Time Miscellaneous		5500-00-2	-												-			-	
Real Time Net Inadvertent Distribution		5500-00-4	(2 000.00)										(18.07)		-			-	
Real Time Revenue Neutrality Upth		5500-00-5	190 000.00									17, 86.31			-			-	
Real Time Revenue Neutrality Upth		5500-00-8	-												-			-	
Demand Response Allocation Upth		5500-0007	9 000.00									828.30			-			-	
Day Ahead Ramp Capability Amount		5500-0009	-												-			-	
Real Time Ramp Capability Amount		5500-0009	-												-			-	
Real Time Ramp Schedule - Cost Distribution		5500-0001	13 000.00									1,196.3			-			-	
Subtotal			210 000.00	299		299				90 130	19 511.04	90 130	(184.07)		113 577			113 577	
Grandfathered Charge - vena																			
Day Ahead Congestion Rebate on Carve-Out Grandfathered		5500-0003	-																
Day Ahead Losses Rebate on Carve-Out Grandfathered		5500-0003	-																
Day Ahead Congestion Rebate on Carve-Out Grandfathered		5500-0003	-																
Day Ahead Losses Rebate on Opt on B Grandfathered		5500-0006	-																
Real Time Losses Rebate on Carve-Out Grandfathered		5500-00-9	-																
Real Time Congestion Rebate on Carve-Out Grandfathered		5500-0009	-																
Subtotal				299		299				90 130		90 130			113 577			113 577	
ASM Charge - vena (X Other)																			
Day Ahead Distribution Amount		5500-0002	(6 000.00)									-	5,890.13		-			-	
Day Ahead Spinning Reserve Amount		5500-0001	(3 000.00)									-	3,957.3)		-			-	
Day Ahead Supplemental Reserve		5500-0006	-												-			-	
Contingency Reserve Deployment		5500-0006	-												-			-	
Real Time Distribution Amount		5500-0006	-												-			-	
Real Time Distribution Amount		5500-0006	17 000.00									1.56 - 56			-			-	
Regulation Reserve Cost Distribution		5500-0001	16 000.00									3,221.16			-			-	
Real Time Excessive Deficit		5500-0007	23 000.00									2,116.76			-			-	
Distribution Charge Amount		5500-0002	7 000.00									6 - 23			-			-	
Spinning Reserve Cost Distribution		5500-0007	30 000.00									2,761.00			-			-	
Real Time Supplemental Reserve		5500-0007	-												-			-	
Supplemental Reserve Cost Distribution		5500-0007	8 000.00									736.27			-			-	
Day Ahead Short-Term Reserve Amount		5500-0002	(1 000.00)									-	(1,288.7)		-			-	
Real Time Short-Term Reserve Amount		5500-0002	3 000.00									276.10			-			-	
Short-Term Reserve Cost Distribution		5500-0002	16 000.00									1.7 - 8.63			-			-	
Short-Term Reserve Deployment Failure Charge Amount		5500-0005	-												-			-	
Subtotal			21 000.00	299		299				90 130	13 068.72	90 130	(11 136.02)		113 577			113 577	
Grand total			8 742 173.13	299		299				90 130	840 732.69	90 130	(119 924.18)		113 577			113 577	

MNESO A POWER		Account Number	September 2023				FPE Regals				FAC Regals				Subtotal FPE and FAC		MSO Non-Liquidation					
MISO MON KEY ALLOCA IDN			M	Credit	M	Debit	M	Credit	M	Debit	M	Credit	M	Debit	M	Credit	M	Debit	M	Credit	M	Debit
Day Ahead and Real Time Energy																						
Day Ahead Asset Energy		700-0000 or 55500-0000 or 55500-0000	-												-							
15	DA Real Time - Total E & S	55500-0007	-												-							
Real Time Asset Energy		700-0000 or 55500-0000 or 55500-0000	-												-							
135	Excessive Energy Amount	55500-0006	-												-							
Non-Excessive Energy Amount		55500-0006	-												-							
22	Real Time Non-Asset Energy	55500-00-3	-												-							
Subtotal			599 827	0 00			98 954								185 077							
Day Ahead and Real Time Energy Loss																						
Day Ahead Loss		700-0000 or 55500-0000 or 55500-0000	12,178,717.73		7 690,176.65	-		1,251,928.6	-		8.9	2.3	6.11		2,19 668.07							
16	Day Ahead Financial Breakdown	55500-0007	-												-							
Real Time Loss		700-0000 or 55500-0000 or 55500-0000	-												-							
135	Real Time Financial Breakdown	55500-0007	-												-							
Real Time Distributional Losses		55500-00-1	(230,000.00)			(1,39,000.00)					23,506.00				(167,900.00)							(6,28.97)
16	Real Time Financial Breakdown	55500-0007	-												-							
Subtotal			11 948,717.73	599 827	7 690,417.65	599 827	(144,384.00)	98 954	1,251,928.46	98 954	23,506.00	8,774,446.11	185 077	2,419,668.07	185 077							(46,428.97)
Virtual Energy																						
Day Ahead Virtual Energy		55500-0009	-												-							
17	Real Time Virtual Energy	55500-00-9	-												-							
Subtotal			599 827		599 827		98 954		98 954				185 077		185 077							
Schedule 16-A 12-11																						
Day Ahead Market Administration		55500-0002	1,000.00		90,030.20	-		1,716.80	-		105,120.00				29,068.57							
19	Real Time Market Administration	55500-0002	15,000.00		9,170.00	-		1,533.00	-		10,950.00				3,027.98							
29	Financial Transaction on Rights Market	55500-0031	3,000.00		213.52	-		37.8	-		2,820.00				686.3							
Subtotal			162,400.00	599 827	101,954.72	599 827		98 954	16,597.28	98 954		118,052.00	185 077	32,782.89	185 077							
Congestion F, R & RBs																						
Day Ahead Congestion		700-0000 or 55500-0000 or 55500-0000	-												-							
15	Real Time Congestion	700-0000 or 55500-0000 or 55500-0000	-												-							
135	Day Ahead Financial Breakdown	55500-0007	-												-							
Real Time Financial Breakdown		55500-0007	-												-							
15	Auction Revenue Right Transaction	55500-0008	-												-							
Financial Transaction on Rights Monthly		55500-0008	(11,788,599)			(7,00,000.00)				(1,20,79)	(8,605,67)											(2,379,70)
Auction Revenue Right Infeasible Uplift Amount		55500-0009																				
Auction Revenue Right Stage 2		55500-0009																				
Financial Transaction on Rights Monthly		55500-0009	(90,000.00)			(56,502.00)				(9,198.00)	(65,700.00)											(18,167,86)
28	Financial Transaction on Rights Monthly	55500-0009	(812,26,7)			(509,939.63)				83,013.31	(992,953.06)											(163,967,82)
Financial Transaction on Rights Monthly		55500-0009	-												-							
30	Financial Transaction on Rights Monthly	55500-0009	-												-							
Financial Transaction on Rights Monthly		55500-0009	-												-							
Financial Transaction on Rights Monthly		55500-0009	-												-							
Financial Transaction on Rights Monthly		55500-0009	-												-							
Financial Transaction on Rights Monthly		55500-0009	-												-							
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Financial Transaction on Rights Monthly		55500-0009	-				</															

Sep23

MINNESOTA POWER		Account Number	October 2023				FPE Regain				FAC Regain				Subtotal FPE and FAC		MSO Non-Liquidation			
MISO NON-FLY ALLOCATIONS							M	Cost	M	Re-e-e	M	Cost	M	Re-e-e	M	Cost	M	Cost	M	Re-e-e
Day Ahead and Real Time Energy																				
Day Ahead Asset Energy		700-0000 or 55500-0000 or 55500-0000	-												-					
DA Real Time - Real Time Energy		55500-0000	-												-					
Real Time Asset Energy		700-0000 or 55500-0000 or 55500-0000	-												-					
Excessive Energy Amount		55500-0006	-												-					
Non-Excessive Energy Amount		55500-0008	-												-					
Real Time Non-Asset Energy		55500-00-3	-												-					
Subtotal				602 608	0 00						106 181				-		46 851			
Day Ahead and Real Time Energy Loss																				
Day Ahead Loss		700-0000 or 55500-0000 or 55500-0000	6,595,995.3		698 716.72	-					829 185.30	-			5,527,902.02		387 552.86			-
Day Ahead Financial Benefit		55500-0000	-												-					
Real Time Loss		700-0000 or 55500-0000 or 55500-0000	-												-					
Real Time Financial Benefit		55500-0000	-												-					
Real Time Distributional Losses		55500-00-1	(230,000.00)			(16 220.00)					28 980.00				(193,200.00)				(13 352.71)	
Real Time Financial Benefit Transfer Loss		55500-00-8	-												-					
Subtotal			6 365 995.43	602 608	4 698 716.72	602 608	(164 220.00)				106 181	829 185.30	106 181	28 980.00	5 334 702.02	46 851	387 552.86	46 851	(13 352.71)	
Virtual Energy																				
Day Ahead Virtual Energy		55500-00-2	-												-					
Real Time Virtual Energy		55500-00-9	-												-					
Subtotal				602 608	602 608						106 181		106 181			46 851		46 851		
Schedule 16-A 17-1																				
Day Ahead Market Administration		55500-0000	1,000.00		102 816.00	-					18.1	.00	-		120,960.00		8 359.96		-	
Real Time Market Administration		55500-0006	15,000.00		10 710.00	-					1,890.00		-		12,600.00		870.83		-	
Financial Transfer on Rights Market		55500-0001	3,000.00		2 27.60	-					28.0		-		2 856.00		187.39		-	
Subtotal			162 400.00	602 608	115 950.60	602 608					106 181	20 462.40	106 181		136 416.00	46 851	9 428.18	46 851		
Congestion Fines and Rebates																				
Day Ahead Congestion		700-0000 or 55500-0000 or 55500-0000	-												-					
Real Time Congestion		700-0000 or 55500-0000 or 55500-0000	-												-					
Day Ahead Financial Benefit		55500-0000	-												-					
Real Time Financial Benefit		55500-0000	-												-					
Congestion Revenue Right Transaction		55500-0007	-												-					
Financial Transfer on Rights Monthly Allocation		55500-0008	(11,788.59)		(8 17.08)						(1 85.38)				(9,902.2)				(88 39)	
Financial Transfer on Rights Yearly Allocation		55500-0006	-												-					
Congestion Revenue Right Infeasible Uplift Amount		55500-0000	9 700.00		6 676.00						1 777.00				8 1 8 00.00		643.1			
Congestion Revenue Right Stage 2		55500-0001	(90,000.00)		(6 280.00)						(11.3 0.00)				(75,600.00)				(5 22 97)	
Financial Transfer on Rights Monthly Allocation		55500-0002	(812.26 7)		(579 956.83)						(102.3 5.32)				(882 302.15)				(7 156 2 1)	
Financial Transfer on Rights Monthly Allocation		55500-0001	-												-					
Financial Transfer on Rights Yearly Allocation		55500-0006	-												-					
Financial Transfer on Rights Full Capacity Constraint Amount		55500-0000	-												-					
Financial Transfer on Rights Full Capacity Constraint Amount		55500-0006	-												-					
Financial Transfer on Rights Monthly Allocation		55500-0000	-												-					
Financial Transfer on Rights Monthly Allocation		55500-0000	-												-					
Subtotal			(904 353.06)	602 608	6 925.80	602 608	(652 633.88)				106 181	1 222.20	106 181	(115 170.89)	(759 656.57)	46 851	563.14	46 851	(53 065.00)	
MSO and Make-Whole Payments																				
Day Ahead Revenue Surcharge Guarantee Distribution		55500-0008	25,000.00		17 850.00	-					3,150.00	-			21,000.00		1 51.38		(75 72)	
Day Ahead Revenue Surcharge Guarantee Distribution		55500-0008	(13,000.00)		(9 282.00)	-					(1 638.00)	-			(10,920.00)					
Real Time Price Volatility Make-Whole Payment		55500-0007	(5,000.00)		(3 570.00)	-					(630.00)	-			(4,300.00)				(290 28)	
Real Time Revenue Surcharge Guarantee Distribution		55500-00-4	65,000.00		6 10.00	-					8,100.00	-			5 600.00		3 773.59			
Real Time Revenue Surcharge Guarantee Make-Whole Payment		55500-00-7	(18,000.00)		(12 852.00)	-					(2 298.00)	-			(15,120.00)				(1 8 99)	
Subtotal			54 000.00	602 608	64 290.00	602 608	(25 704.00)				106 181	11 340.00	106 181	(4 536.00)	45 360.00	46 851	5 224.97	46 851	(2 889.99)	
MSO and Misc. Charges																				
Real Time Market Allocation		55500-00-2	-												-					
Real Time Net Inadvertent Distribution		55500-00-6	(2,000.00)		(1 28.00)						(252.00)				(1,680.00)				(136 11)	
Real Time Revenue Neutral Uplift		55500-00-5	100,000.00		135 660.00						23.9 0.00				159,600.00		11 030.50			
Real Time Uninsured Distribution		55500-00-8	-												-					
Demand Response Allocation Uplift		55500-0007	9,000.00		6 26.00						1.13 1.00				7,560.00		522.50			
Day Ahead Ramp Capacity Amount		55500-0009	-												-					
Real Time Ramp Capacity Amount		55500-0009	-												-					
Subtotal			13,000.00	602 608	9 282.00	602 608	(1 428.00)				106 181	1 638.00	106 181	(252.00)	10,920.00	46 851	75.72	46 851	(136 11)	
Grand allocated charges - fees																				
Day Ahead Congestion Rebate on Capacity Out Grandfathered		55500-0003	-												-					
Day Ahead Losses Rebate on Capacity Out Grandfathered		55500-0002	-												-					
Day Ahead Congestion Rebate on Capacity Out Grandfathered		55500-0000	-												-					
Day Ahead Losses Rebate on Capacity Out Grandfathered		55500-0006	-												-					
Real Time Losses Rebate on Capacity Out Grandfathered		55500-0000	-												-					
Real Time Losses Rebate on Capacity Out Grandfathered		55500-00-2	-												-					
Real Time Congestion Rebate on Capacity Out Grandfathered		55500-0009	-												-					
Subtotal			210 000.00	602 608	151 368.00	602 608	(1 428.00)				106 181	26 712.00	106 181	(252.00)	176 400.00	46 851	12 307.72	46 851	(136 11)	
Grand allocated charges - fees																				
Day Ahead Congestion Rebate on Capacity Out Grandfathered		55500-0003	-												-					
Day Ahead Losses Rebate on Capacity Out Grandfathered		55500-0002	-												-					
Day Ahead Congestion Rebate on Capacity Out Grandfathered		55500-0000	-												-					
Day Ahead Losses Rebate on Capacity Out Grandfathered		55500-0006	-												-					
Real Time Losses Rebate on Capacity Out Grandfathered		55500-0000	-												-					
Real Time Losses Rebate on Capacity Out Grandfathered		55500-00-2	-												-					
Real Time Congestion Rebate on Capacity Out Grandfathered		55500-0009	-												-					
Subtotal				602 608	101 388.00	602 608	(86 384.00)				106 181	17 852.00	106 181	(15 246.00)	17 640.00	46 851	8 243.85	46 851	(7 024.69)	
MSO and Misc. Charges																				
Day Ahead Short-Term Reserve Amount		55500-0002	(6 000.00)		-	(1 5 696.00)					-				(5,696.00)				(3 715.5)	
Day Ahead Spinning Reserve Amount		55500-0003	(3,000.00)		-	(30 702.00)					-				(5,702.00)				(2 96 38)	
Day Ahead Supplemental Reserve Amount		55500-0006	-												-					
Congestion Reserve Deployment		55500-0006	-												-					
Futures Charge Amount		55500-0006	-												-					
Real Time Reserve Cost Distribution		55500-0000	17,000.00		12 138.00						2.1 2.00				1 280.00					
Regulate on Reserve Cost Distribution		55500-0001	(6 000.00)		7 960.00						10.00				9 960.00		9 960.00			
Real Time Excessive Demand		55500-0007	23,000.00		16 22.00						2,888.00				19,320.00		1 335.27			
Non-Excessive Charge Amount		55500-0007	7,000.00		998.00						882.00				5,880.00		66.39			
Spinning Reserve Cost Distribution		55500-0003	30,000.00		21 20.00						3,780.00				25,300.00		1 7 1.66			
Real Time Supplemental Reserve Amount		55500-0007	-												-					
Supplemental Reserve Cost Distribution		55500-0006	8,000.00		5 712.00						1,008.00				6,720.00		6 1			
Day Ahead Short-Term Reserve Amount		55500-0002	(1 000.00)		-	(9 996.00)					-				(11 760.00)				(812 77)	
Real Time Short-Term Reserve Amount		55500-0003	3,000.00		2.1 2.00						378.00				2,520.00		17 17			
Short-Term Reserve Cost Distribution		55500-0003	16 000.00		11 666.00						7 98 00				15 660.00		1 000.00			
Short-Term Reserve Deployment Phase Amount		55500-0008	-												-					
Subtotal			21 000.00	602 608	101 388.00	602 608	(86 384.00)				106 181	17 852.00	106 181	(15 246.00)	17 640.00	46 851	8 243.85	46 851	(7 024.69)	
Grand Total																				
Grand Total		5 909 942.37	602 608	5 138 612.12	602 608	(930 379.88)					106 181	906 813.90	106 181	(264 184.69)	4 950 961.46	46 851	423 320.72	46 851	(75 648.69)	

MINNESOTA POWER		Account	MISO MCHN HLY ALLOCA ON				MISO L. settlement				Others - L. settlement				Others - Reg. L. settlement				Contract Sales			
		Number	October 2022				M	Cost	M	Re s. e	M	Cost	M	Re s. e	M	Cost	M	Re s. e	M	Cost	M	Re s. e
Day Ahead and Real Time Energy																						
Day Ahead Asset Energy		700-0000 or 5500-0000 or 5500-0050	-																			
On - asset No. - asset E. s. s		5500-0057	-																			
Real Time Asset Energy		700-0000 or 5500-0000 or 5500-0050	-																			
Excessive Energy Amount		5500-0056	-																			
Non-Excessive Energy Amount		5500-0066	-																			
Real Time Non-Asset Energy		5500-00-3	-																			
Subtotal				9 687								82 271					103 282					
Day Ahead and Real Time Energy Losses																						
Day Ahead Loss		700-0000 or 5500-0000 or 5500-0050	6 595 995.3									680.5	0.55	-			-					
Day Ahead Financial Bilateral Transaction Loss		5500-0002	-											-			-					
Real Time Loss		700-0000 or 5500-0000 or 5500-0050	-																			
Real Time Distribution of Losses		5500-00-1	230 000.00														(23.729)					
Real Time Financial Bilateral Transaction Loss		5500-0038	-											-			-					
Subtotal			6 595 995.43	9 687		9 687						82 271	680 540.55	82 271	(23 447.29)		103 282			103 282		
Virtual Energy																						
Day Ahead Virtual Energy		5500-0030	-																			
Real Time Virtual Energy		5500-00-9	-																			
Subtotal				9 687		9 687						82 271		82 271			103 282			103 282		
Schedule 16A-17 - M																						
Day Ahead Market Administration (Schedule 17)		5500-0020	1 000.00											1 680.0		-		-				
Real Time Market Administration (Schedule 17)		5500-0036	15 000.00											1,529.17		-		-				
Financial Transmission Rights Market (Schedule 17)		5500-0031	3 000.00											3 661		-		-				
Subtotal			162 400.00	9 687		9 687						82 271	16 555.82	82 271	(23 447.29)		103 282			103 282		
Congestion, Financial Rights & ARRs																						
Day Ahead Congestion		700-0000 or 5500-0000 or 5500-0050	-											-		-		-				
Real Time Congestion		700-0000 or 5500-0000 or 5500-0050	-											-		-		-				
Day Ahead Financial Bilateral Transaction Congestion		5500-0001	-											-			-					
Real Time Financial Bilateral Transaction Congestion		5500-0037	-											-			-					
Financial Transmission Rights Transaction		5500-0058	-											-			-					
Financial Transmission Rights Annual Transaction Amount		5500-0003	(11 788.59)														(1,201.78)					
Financial Transmission Rights in-state Up-It Amount		5500-0050	9 999.99											988.86		-		-				
Financial Transmission Rights Stage 2 Distribution Amount		5500-0061	(80 000.00)											-			9,175.03					
Financial Transmission Rights Hourly Allocation		5500-0032	812.26 - 71											-			(82,806.08)					
Financial Transmission Rights Monthly Allocation		5500-0031	-											-			-					
Financial Transmission Rights Yearly Allocation		5500-0035	-											-			-					
Financial Transmission Rights Full-Cycle Distribution Amount		5500-0056	-											-			-					
Financial Transmission Rights Full-Cycle Distribution Amount		5500-0056	-											-			-					
Financial Transmission Rights Monthly Allocation		5500-0056	-											-			-					
Financial Transmission Rights Monthly Allocation		5500-0056	-											-			-					
Financial Transmission Rights Transaction		5500-0001	-											-			-					
Subtotal			904 363.06	9 687		9 687						82 271	988.86	82 271	(93 182.89)		103 282			103 282		
RSD & Make Whole Payments																						
Day Ahead Revenue Sufficiency Guarantee On-It Distribution		5500-0028	25 000.00											2.5	8.62		-		-			
Day Ahead Revenue Sufficiency Guarantee On-It Distribution		5500-0028	(13 000.00)											-			(1,325.28)			-		
Real Time Revenue Sufficiency Guarantee On-It Distribution		5500-0057	(5 000.00)											-			(509.73)			-		
Real Time Revenue Sufficiency Guarantee On-It Distribution		5500-00-6	65 000.00											6.626	1		-		-			
Real Time Revenue Sufficiency Guarantee Make Whole Payments		5500-00-7	(18 000.00)											-			(1,805.03)			-		
Subtotal			54 000.00	9 687		9 687						82 271	9 175.63	82 271	(3 670.03)		103 282			103 282		
OTD & Misc Charges																						
Real Time MISO Without		5500-00-2	-											-			-					
Real Time Net Inadvertent Distribution		5500-00-4	(2 000.00)											-			(203.89)			-		
Real Time Revenue Neutrality Up-It		5500-00-5	190 000.00											19,369.50		-		-				
Real Time Revenue Neutrality Up-It		5500-00-8	-											-			-					
Demand Response Allocation Up-It		5500-0077	9 000.00											917.50		-		-				
Day Ahead Ramp Capability Amount		5500-0079	-											-			-					
Real Time Ramp Capability Amount		5500-0080	-											-			-					
Real Time Ramp Capability Amount		5500-0081	13 000.00											1,352.26		-		-				
Subtotal			210 000.00	9 687		9 687						82 271	21 612.28	82 271	(203.89)		103 282			103 282		
Grandfathered Charge - vases																						
Day Ahead Congestion Rebate on Carve-Out Grandfathered		5500-0043	-											-			-					
Day Ahead Losses Rebate on Carve-Out Grandfathered		5500-0002	-											-			-					
Day Ahead Congestion Rebate on Carve-Out Grandfathered		5500-0005	-											-			-					
Day Ahead Losses Rebate on Opt-on B Grandfathered		5500-0006	-											-			-					
Real Time Losses Rebate on Carve-Out Grandfathered		5500-00-9	-											-			-					
Real Time Congestion Rebate on Carve-Out Grandfathered		5500-0009	-											-			-					
Subtotal				9 687		9 687						82 271		82 271			103 282			103 282		
ASM Charge - vases (X) Other																						
Day Ahead Distribution Amount		5500-0062	(6 000.00)											-			6.52 (6)		-			
Day Ahead Spinning Reserve Amount		5500-0061	(1 300.00)											-			(1,383.62)		-			
Day Ahead Supplemental Reserve Amount		5500-0066	-											-			-					
Contingency Reserve Deployment Failure Charge Amount		5500-0066	-											-			-					
Real Time Distribution Amount		5500-0070	17 000.00											1,733.06		-		-				
Regulation Reserve Cost Distribution		5500-0071	16 000.00											3,568.07		-		-				
Real Time Excessive Deficit Deployment Charge Amount		5500-0067	23 000.00											2.3	.73		-		-			
Real Time Spinning Reserve Amount		5500-0072	7 000.00											713.61		-		-				
Spinning Reserve Cost Distribution Amount		5500-0073	30 000.00											3,058.3		-		-				
Real Time Supplemental Reserve Amount		5500-007	-											-			-					
Supplemental Reserve Cost Distribution		5500-0075	8 000.00											815.56		-		-				
Day Ahead Short-Term Reserve Amount		5500-0082	(11 000.00)											-			(1,277.29)		-			
Real Time Short-Term Reserve Amount		5500-0083	3 000.00											305.83		-		-				
Short-Term Reserve Cost Distribution Amount		5500-0084	19 000.00											1,936.95		-		-				
Short-Term Reserve Deployment Failure Charge Amount		5500-0085	-											-			-					
Subtotal			21 000.00	9 687		9 687						82 271	14 476.15	82 271	(12 335.31)		103 282			103 282		
Grand total			5 909 042.37	9 687		9 687						82 271	743 348.69	82 271	(332 939.38)		103 282			103 282		

MINNESOTA POWER		Account Number	November 2023				FPE Regain				FAC Regain				Subtotal FPE and FAC		MSO Non-Liquidation					
MISO NON-FLY ALLOCATIONS							M	Cost	M	Re-e-e	M	Cost	M	Re-e-e	M	Cost	M	Re-e-e	M	Cost	M	Re-e-e
Day Ahead and Real Time Energy																						
Day Ahead Asset Energy			700-0000 or 55500-0000 or 55500-0000	-																		
15	DA Real Time - Total E & S	55500-0007	-																			
Real Time Asset Energy			700-0000 or 55500-0000 or 55500-0000	-																		
35	Excessive Energy Amount	55500-0006	-																			
Non-Excessive Energy Amount			55500-0006	-																		
19	Real Time Non-Asset Energy	55500-00-3	-																			
Subtotal				628 015	0 00						107 210					183 978						
Day Ahead and Real Time Energy Loss																						
Day Ahead Loss			700-0000 or 55500-0000 or 55500-0000	7.63 ,975.22		762 821.63	-				8 0 , 97.9	-			5,603,319.57		1 , 63 296.89					
16	Day Ahead Financial Breakdown	55500-0002	-																			
Real Time Loss			700-0000 or 55500-0000 or 55500-0000	-																		
35	Real Time Financial Breakdown	55500-0002	-																			
Real Time Distributional Losses			55500-00-1	(230,000.00)			(1 2 715.00)					25,185.00			(167,900.00)						(727.3)	
16	Real Time Financial Breakdown	55500-0008	-																			
Subtotal			7,404,975.22	628 015	4,762 821.63	628 015	(142 715.00)				107 210	840 497.94	107 210	25 185.00	5 435 419.57	183 978	1 463 296.89	183 978			(44 727.43)	
Virtual Energy																						
Day Ahead Virtual Energy			55500-0009	-																		
12	Real Time Virtual Energy	55500-00-9	-																			
Subtotal				628 015		628 015					107 210		107 210			183 978		183 978				
Schedule 16-A 17-17																						
Day Ahead Market Administration			55500-0000	1 , 000.00		89 352.00	-				15,768.00	-			105,120.00		28,003.26					
25	Real Time Market Administration	55500-0000	15,000.00			9 307.50	-				1.6 2.50	-			10,950.00		2,917.01					
19	Financial Transaction on Rights Market	55500-0001	3 , 00.00			2 109.20	-				372.30	-			2 , 82.00		661.39					
20	Financial Transaction on Rights Market	55500-0001	-																			
Subtotal			162 400.00	628 015	100 769.20	628 015					107 210	17 782.80	107 210		118 052.00	183 978	31 981.46	183 978				
Congestion F & R & RRs																						
Day Ahead Congestion			700-0000 or 55500-0000 or 55500-0000	-																		
11	Real Time Congestion	700-0000 or 55500-0000 or 55500-0000	-																			
135	Day Ahead Financial Breakdown	55500-0001	-																			
Real Time Financial Breakdown			55500-0001	-																		
15	Auction Revenue Right Transaction	55500-0002	-																			
Financial Transaction on Rights Market			55500-0002	(11,788.59)			(7.31 80)				(1,290.85)				(8,605.67)						(2,292.91)	
Auction Revenue Right Infeasible Up to Amount			55500-0003																			
Auction Revenue Right Stage 2			55500-0004																			
Financial Transaction on Rights Monthly Allocation			55500-0002	(812.26 - 7)			(50 010.10)				88.9 2.96				(992,953.00)						(157,958.71)	
28	Financial Transaction on Rights Monthly Allocation	55500-0003	-																			
30	Financial Transaction on Rights Yearly Allocation	55500-0005	-																			
Financial Transaction on Rights Full Capacity Constraint Amount			55500-0005	-																		
Financial Transaction on Rights Monthly Allocation			55500-0005	-																		
31	Financial Transaction on Rights Full Capacity Constraint Amount	55500-0003	-																			
Subtotal			(904 353.00)	628 015	6 018.85	628 015	(567 169.91)				107 210	1 062.15	107 210	(100 088.81)	(660 177.73)	183 978	1 886.33	183 978			(177 753.24)	
RSC & Make Whole Payments																						
Day Ahead Revenue Shortage Guarantee Distribution			55500-0006	25,000.00		15 512.50	-				2,737.50	-			18,250.00		861.68				(2,528.07)	
10	Day Ahead Revenue Shortage Guarantee Distribution	55500-0006	(13,000.00)				(8 966.50)				(1, 23.50)				(9, 90.00)							
Real Time Revenue Shortage Guarantee Distribution			55500-0007	(5,000.00)			(3,102.50)				(6 7.50)				(3,650.00)						(972.3)	
2	Real Time Revenue Shortage Guarantee Distribution	55500-00-4	65,000.00		0 332.50	-					7,117.50	-			7, 50.00		12.6 0.36					
25	Real Time Revenue Shortage Guarantee Make Whole Payments	55500-00-7	(18,000.00)				(11,169.00)				(1,971.50)				(13,1 0.00)						(3,500.3)	
Subtotal			54 000.00	628 015	55 845.00	628 015	(22 338.00)				107 210	9 855.00	107 210	(3 942.00)	39 420.00	183 978	17 502.04	183 978			(7 000.82)	
RSC & Misc Charges																						
Real Time Market Administration			55500-00-2	-																		
20	Real Time Net Inadvertent Distribution	55500-00-5	(2,000.00)				(1 2 1.00)					(219.00)			(1 , 60.00)						(388.93)	
Real Time Revenue Neutral by Up to			55500-00-6	100,000.00		117 895.00	-				20,805.00	-			138,700.00		36.9 8.75					
27	Real Time Uninsured Deviation	55500-00-8	-																			
Demand Response Allocation by Up to			55500-0007	9,000.00		5 18 ,50	-				985.50	-			6,570.00		1,750.20					
33	Day Ahead Ramp Capacity by Amount	55500-0009	-																			
Real Time Ramp Capacity by Amount			55500-0009	-																		
33	Real Time Ramp Capacity by Amount	55500-0001	13,000.00		8 066.50	-					1 , 23.50	-			9, 90.00		2,528.07					
Subtotal			210 000.00	628 015	131 546.00	628 015	(1 241.00)				107 210	23 214.00	107 210	(219.00)	153 300.00	183 978	41 227.02	183 978			(388.93)	
Grand allocated charges - fees																						
Day Ahead Congestion Rebate on Capacity Out Grandfathered			55500-0002	-																		
6	Day Ahead Congestion Rebate on Capacity Out Grandfathered	55500-0002	-																			
Day Ahead Congestion Rebate on Capacity Out Grandfathered			55500-0002	-																		
7	Day Ahead Congestion Rebate on Capacity Out Grandfathered	55500-0002	-																			
Day Ahead Congestion Rebate on Capacity Out Grandfathered			55500-0002	-																		
17	Real Time Congestion Rebate on Capacity Out Grandfathered	55500-0002	-																			
18	Real Time Congestion Rebate on Capacity Out Grandfathered	55500-0002	-																			
Subtotal				628 015		628 015					107 210		107 210			183 978		183 978				
ASM Charges - fees (2 Other)																						
Day Ahead Spinning Reserve Amount			55500-0002	(6 ,000.00)			(39 712.00)								(7 ,008.00)		(6,730.00)				(12 , 5.88)	
Day Ahead Spinning Reserve Amount			55500-0003	(3,000.00)			(26 681.50)								(708.50)		(31,390.00)				(8,362.08)	
Day Ahead Supplemental Reserve			55500-0008	-																		
Congestion Reserve Deployment			55500-0008	-																		
Futures Charge Amount			55500-0008	-																		
Real Time Reserve Cost Distribution			55500-0007	17,000.00		10 1 8.50	-				1,861.50	-			12 , 10.00		3,305.9					
Regulate on Reserve Cost Distribution			55500-0007	16,000.00		7,177.42	-				9,817.42	-			14,900.00		4,896.14					
Real Time Reserve Cost Distribution			55500-0007	23,000.00		1, 271.50	-				2,518.50	-			16,790.00		72.7					
Real Time Spinning Reserve Amount			55500-0007	7,000.00		3 , 3.50	-				766.50	-			5,110.00		1,361.27					
Spinning Reserve Cost Distribution			55500-0007	30,000.00		18 615.00	-				3,285.00	-			21,900.00		5.83 0.1					
Real Time Supplemental Reserve			55500-0007	-																		
Supplemental Reserve Cost Distribution			55500-0007	8,000.00		96 ,00	-				876.00	-			5.8 0.00		1 555.7					
Day Ahead Short-Term Reserve by Amount			55500-0002	(1 ,000.00)			(8 687.00)								(13,533.00)		(10,220.00)				(2 722.5)	
Real Time Short-Term Reserve Amount			55500-0003	3,000.00		1 861.50	-				328.50	-			2,190.00		583.0					
Short-Term Reserve Cost Distribution			55500-0003	16,000.00		11 798.42	-				7,089.42	-			11,670.00		1,449.87					
Short-Term Reserve Deployment			55500-0008	-																		
Subtotal			21 000.00	628 015	88 111.00	628 015	(75 080.50)				107 210	15 540.00	107 210	(13 249.50)	15 330.00	183 978	27 614.33	183 978			(23 500.52)	
Grand Total																						
Grand Total			6 948 022.17	628 015	5 145 111.68	628 015	(808 544.42)				107 210	307 969.89	107 210	(142 684.31)	5 101 843.84	183 978	1 583 108.06	183 978			(252 400.52)	

Nov/29

1/ All Account information charges reflected in the Retail column are now in the base rates (not recovered in the FPE)
2/ Accounts 55500 0550 and 55500 0053 are not recovered through the FPE
3/ Accounts 55500 0076 are not recovered through FPE for Resource adequacy LMP it relates to capacity
NOTE:
DA and RT Asset Energy amounts have been reduced by the generation to load LMP differences (RE) which are shown in the Day Ahead Loss, Real-time Loss, Day Ahead Contract and Real-time Contract lines
Other Asset Based Sales includes liquidation on contracts which are not associated with ISO charges as a margin from liquidation sales as allocated to the FPE
RT Liquidation Energy and DA and RT Non-Asset Energy is not allocated to BidsMO, Non-Liquidation or ISO Liquidation on. Others-Liquidation, Others-Non-Liquidation and Contract sales for these amounts are not tracked separately against the FPE

Dac29

MINNESOTA POWER MISO NON-RELIABLE ALLOCATION		Account Number	January 2023	December 2023	FPE Budget				FAC Reserve				Subtotal FAC	MISO Non-Liquidation			
					Math	Cost	Math	Revenue	Math	Cost	Math	Revenue	Cost (Revenue)	Math	Cost	Math	Revenue
Day Ahead and Real Time Energy																	
Day Ahead Asset Energy		700-0000 or 55000-0000 or 55000-0000															
Day Ahead Financial Bid		55000-0001															
Real Time Asset Energy		700-0000 or 55000-0000 or 55000-0000															
Real Time Financial Bid		55000-0001															
Real Time Non-Asset Energy		55000-0003															
Subtotal					7 504 114				1 111 130					7 728 780			
Day Ahead and Real Time Energy																	
Day Ahead Loss		700-0000 or 55000-0000 or 55000-0000	9 117 95 09			55,071,905 0				10,357,881 00			68 29 786 0		17 836 001 76		
Day Ahead Financial Bid		55000-0001															
Real Time Loss		700-0000 or 55000-0000 or 55000-0000															
Real Time Financial Bid		55000-0001															
Real Time Distribution of Losses		55000-0003	(2 760 000 00)				(1 736 22 00)					(306 176 00)	(2 0 2 00 00)			623 0 73	
Subtotal			91 367 954 09		7 504 114	59 071 905 00	7 504 114	(1 736 224 00)	1 111 130	10 357 881 00	1 111 130	(306 176 00)	67 387 386 40	2 228 780	17 836 001 76	2 228 780	623 004 73
Virtual Energy																	
Day Ahead Virtual Energy		55000-0000															
Real Time Virtual Energy		55000-0009															
Subtotal					7 504 114		7 504 114		1 111 130		1 111 130			2 228 780		2 228 780	
Schedule 16 & 17 - 11																	
Day Ahead Market Administration		55000-0000	1 728 000 00			1,087 027 20				191 492 80			1 278 730 00		327 71 9		
Real Time Market Administration		55000-0006	180 000 00			113 232 00				19 968 00			133 200 00		3 111 61		
Financial Transaction on R-gas Market		55000-0031	0 900 00			25 665 91				526 08			30 192 00		7 731 92		
Subtotal			1 908 000 00		7 504 114	1 225 925 12	7 504 114		1 111 130	236 186 88	1 111 130		1 442 112 00	2 228 780	369 315 96	2 228 780	
C. Financial F. Re & RRs																	
Day Ahead Congestion		700-0000 or 55000-0000 or 55000-0000															
Real Time Congestion		700-0000 or 55000-0000 or 55000-0000															
Day Ahead Financial Bid		55000-0001															
Real Time Financial Bid		55000-0001															
Auction Revenue High in Transaction		55000-0007															
Financial Transaction on R-gas Annual		55000-0059	(1 1 63 32)				(88 989 72)			(15 692 97)			(10 682 69)			26 808 53	
Auction Revenue High in Infeasible Unit		55000-0060	116 00 00			73 223 36				12 812 6			86 136 00		22 058 8		
Auction Revenue High in Stage 2		55000-0061	(1 000 000 00)				(676 760 00)			(116 808 00)			(790 500 00)			(70 669 00)	
Financial Transaction on R-gas Hourly		55000-0062	(9 7 7 173 68)				(6 331 622 01)			(1 081 286 8)			(7 212 908 7)			(1 8 7 176 78)	
Financial Transaction on R-gas Monthly		55000-0063															
Financial Transaction on R-gas Yearly		55000-0064															
Financial Transaction on R-gas Full		55000-0065															
Financial Transaction on R-gas Full		55000-0066															
Financial Transaction on R-gas Monthly		55000-0067															
Financial Transaction on R-gas		55000-0068															
Subtotal			(10 862 236 78)		7 504 114	73 223 36	7 504 114	(6 900 003 73)	1 111 130	12 812 64	1 111 130	(1 216 787 43)	(8 039 655 16)	2 228 780	22 058 84	2 228 780	(2 076 664 89)
MISO & Make-Whole Payments																	
Day Ahead Revenue Su Facility		55000-0028	300 000 00			188 720 00				33 280 00			222 000 00		56 852 69		
Day Ahead Revenue Su Facility		55000-0029															
Real Time Price Via a Make-Whole		55000-0030	(156 000 00)				(98 13 0)			(17 305 60)			(115 0 00)			29 563 0	
Real Time Revenue Su Facility		55000-0031	(60 000 00)							(6 466 00)			(7 000 00)			(11 100 0)	
Real Time Revenue Su Facility		55000-0032	780 000 00			90 672 00				86 528 00			577 200 00		1 7 816 99		
Subtotal			(216 000 00)		7 504 114	478 360 00	7 504 114	(771 756 80)	1 111 130	116 808 00	1 111 130	(47 671 30)	478 630 00	7 728 780	369 315 96	7 728 780	81 367 80
RRT & Misc Charges																	
Real Time Net Intraday Distribution		55000-0002															
Real Time Revenue Net Intraday Distribution		55000-0003	(2 000 00)				(15 087 03)			(2 662 0)			(17 760 00)				(5 8 22)
Real Time Unrestricted Distribution		55000-0004	2 280 000 00			1 3 272 00				252 028 00			1 687 200 00		32 080 3		
Demand Response Allocation Unit B		55000-0005															
Real Time Unrestricted Distribution		55000-0006	108 000 00			67 939 20				11 980 80			79 920 00		20 66 97		
Day Ahead Ramp Capable Amount		55000-0007															
Real Time Ramp Capable Amount		55000-0008															
Real Time Schedule - 9 Cost Distribution		55000-0009	156 000 00			98 13 0				17 305 60			115 0 00		29 563 0		
Subtotal			2 520 000 00		7 504 114	1 600 345 60	7 504 114	(15 087 03)	1 111 130	282 214 40	1 111 130	(2 662 40)	1 864 800 00	2 228 780	482 110 80	2 228 780	(4 948 22)
Grand affected charges - yes																	
Day Ahead Congestion Rebate on Ca ve		55000-0073															
Day Ahead Congestion Rebate on Ca ve		55000-0074															
Day Ahead Congestion Rebate on Ca ve		55000-0075															
Day Ahead Congestion Rebate on Ca ve		55000-0076															
Day Ahead Congestion Rebate on Ca ve		55000-0077															
Day Ahead Congestion Rebate on Ca ve		55000-0078															
Day Ahead Congestion Rebate on Ca ve		55000-0079															
Day Ahead Congestion Rebate on Ca ve		55000-0080															
Subtotal					7 504 114		7 504 114		1 111 130		1 111 130			7 728 780		7 728 780	
ADM Change - yes (2.0%)																	
Day Ahead Reserve Amount		55000-0081	(768 000 00)				(483 123)			(85 197)			(568 320 00)				(145 543)
Day Ahead Spinning Reserve Amount		55000-0082	(516 000 00)				(324 588)			(57 242)			(383 8 0 00)				(97 787)
Day Ahead Supplemental Reserve Amount		55000-0083															
Conspicuous Reserve Deployment		55000-0084															
Net Reserve on Allocation Amount		55000-0085															
Real Time Reserve on Allocation		55000-0086	91 000 00			138 900				77 800			140 160 00		58 660		
Real Time Reserve on Allocation		55000-0087	20 000 00			264 208				46 992			310 800 00		79 594		
Real Time Reserve on Allocation		55000-0088	276 000 00			173 622				30 618			20 2 0 00		52 304		
Real Time Reserve on Allocation		55000-0089	8 000 00			52 842				9 318			62 160 00		15 919		
Real Time Reserve on Allocation		55000-0090	360 000 00			226 464				39 936			266 00 00		68 223		
Real Time Supplemental Reserve Amount		55000-0091															
Supplemental Reserve Cost Distribution		55000-0092	96 000 00			60 390				10 650			71 0 0 00		18 193		
Day Ahead Short-Term Reserve Amount		55000-0093	(168 000 00)				(105 683)						(12 320 00)				(31 838)
Real Time Short-Term Reserve Amount		55000-0094	36 000 00			22 646				3 994			36 0 0 00		6 822		
Short-Term Reserve Cost Distribution		55000-0095	228 000 00			143 427				25 293			168 720 00		43 208		
Short-Term Reserve Deployment Factors		55000-0096															
Subtotal			262 000 00		7 504 114	1 071 929 60	7 504 114	(913 404 80)	1 111 130	189 030 40	1 111 130	(161 075 20)	186 480 00	2 228 780	322 923 27	2 228 780	(275 367 81)
Grand total			85 874 373 39		7 504 114	63 722 721 06	7 504 114	(9 836 486 91)	1 111 130	11 178 033 32	1 111 130	(1 734 624 23)	63 329 643 24	2 228 780	19 237 169 42	2 228 780	(2 963 282 76)

1/ All Administrative Charges reflected in the Real-time column are now in the base cost of fuel not recovered in the FAC

2/ Accounts 5551 0052 through 5551 0053 are not recovered through the FAC

3/ Accounts 5551 0076 are not recovered through FPE for Resource Adequacy since it relates to capacity

NOTE:

D. S. GARDNER, JR.

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

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.

January through December 2023 is based on actual allocations from the most recent annual ARR Allocation for Planning Year 22/23. 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.

2023 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											
[TRADE SECRET DATA ENDS]											

**Forecasted Planned and Forced 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.

Revised Planned Outages:

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

[TRADE SECRET DATA BEGINS

TRADE SECRET DATA ENDS]

Unplanned Outages:

Generation Specifications			
	Econ Min	Econ Max	EUOF ^{/1}
Boswell Unit 3	75 MW	350 MW	7.55%
Boswell Unit 4	185 MW	580 MW	8.39%

^{/1} The Equivalent Unplanned Outage Factor (“EUOF”) is based on a 10-year average.

Revised Monthly 2023 Forecast

	Jan 23	Feb 23	Mar 23	Apr 23	May 23	Jun 23	Jul 23	Aug 23	Sep 23	Oct 23	Nov 23	Dec 23	Total
	Boswell 3												
	TRADE SECRET DATA BEGINS												
Forced Days													
Forced MWhs													
Purchase													
Purchase Price													
Total Forced Cost													
Unit Cost													
Incremental Cost													
Planned Days													
Planned MWhs													
Purchase													
Purchase Price													
Total Planned Cost													
Unit Cost													
Incremental Cost													
Total Outage Costs													
Total Incremental Costs													
TRADE SECRET DATA ENDS]													

	Jan 23	Feb 23	Mar 23	Apr 23	May 23	Jun 23	Jul 23	Aug 23	Sep 23	Oct 23	Nov 23	Dec 23	Total
	Boswell 4												
	TRADE SECRET DATA BEGINS												
Forced Days													
Forced MWhs													
Purchase													
Purchase Price													
Total Cost													
Unit Cost													
Incremental Cost													
Planned Days													
Planned MWhs													
Purchase													
Purchase Price													
Total Cost													
Unit Cost													
Incremental Cost													
Total Cost													
Total Incremental Costs													
Total Outage Costs													
Total Incremental Costs	1/	1/	1/	1/					1/	1/	1/		TRADE SECRET DATA ENDS]

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

	Revised 2023 Forecast	Original 2023 Forecast	Difference
	Total	Total	
	Boswell 3		Explanation
Forced Days			
Forced MWhs			
Purchase			
Purchase Price			
Total Forced Cost			
Unit Cost			
Incremental Cost			
Planned Days			
Planned MWhs			
Purchase			
Purchase Price			
Total Planned Cost			
Unit Cost			
Incremental Cost			
Total Outage Costs			
Total Incremental Costs			

TRADE SECRET DATA ENDS]

	Revised 2023 Forecast	Original 2023 Forecast	Difference
	Total	Total	
	Boswell 4		Explanation
Forced Days	[TRADE SECRET DATA BEGINS		
Forced MWhs			
Purchase			
Purchase Price			
Total Cost			
Unit Cost			
Incremental Cost			
Planned Days			
Planned MWhs			
Purchase			
Purchase Price			
Total Cost			
Unit Cost			
Incremental Cost			
Total Cost			
Total Incremental Costs			
Total Outage Costs			
Total Incremental Costs			

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 2023 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 2025.
- Purchased Power from Square Butte under a Power Purchase Agreement,
- 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, and Community Solar Garden program

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 two approved integrated resource plans filed in 2013 and 2015. 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 are utilized for reliability of the bulk electric system as market conditions require, and cease coal-fired operations by the end of 2020. In the 2021 Intergrated Rescource Plan, Minnesota Power proposed retiring THEC

facility in Septemeber 2021. Minnesota Power announced it ceased coal-fired operation at Boswell units 1 and 2 in December 2018. In the 2021 Intergrated Resource Plan, Minnesota Power has proposed a bold vision and definitive actions to achieve 80 percent carbon reduction by 2035. In regards to remaining steam generation, per the 2021 Plan Minnesota Power transitioned operations at Boswell Energy Center Unit 3 to economic dispatch in 2021; proposed the early retirement of Unit 3 by year-end 2029 and ceasing coal operations at Minnesota Power's Boswell Energy Center Unit 4 in 2035. For the five-year projection of fuel costs, Boswell 3 was modeled as being on economic dispatch.

2. Total Steam generation costs attributed to coal are expected to [TRADE SECRET DATA BEGINS [REDACTED] [REDACTED] TRADE SECRET DATA ENDS] from 2023 to 2027.
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 13 percent in 2023. After 2023, 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 2025. Through a Capacity Dedication Agreement with South Shore Energy, the Company would have received a 50 percent 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 2025. 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 2025 was kept, 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 116 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 (2023), Minnesota Power used a hydrological forecast, which can vary from the longer-term expectation mentioned above.
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 territory in 2021. The completion of Camp Ripley Solar Project and expanded Community Solar

Garden Program, along with the proposed 20 MW of solar projects now expected in late 2022, are Minnesota Power's strategy to comply with the SES.

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 [REDACTED] TRADE SECRET DATA ENDS] and reduced the PPA pricing by approximately [TRADE SECRET BEGINS [REDACTED] 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 [REDACTED] [REDACTED] TRADE SECRET DATA ENDS] and generate approximately [TRADE SECRET DATA BEGINS [REDACTED] [REDACTED] TRADE SECRET DATA ENDS] due to the addition of 200 MW of new wind proposed in the 2021 Integrated Resource Plan.

For the 2023 FAC Forecast, Minnesota Power used a meteorological wind speed forecast to estimate wind farm energy production. Post 2023, the long-term wind energy production forecast is based on historical production.

Minnesota Power's 2021 Integrated Resource Plan proposes 200 MW of new wind resources by 2025 and 200 MW of new solar resources that leverages the Boswell site or other Minnesota Power facilities by 2030. The five-year projection includes the 200 MW of new wind addition given it is in the study time period. Note the 2021 Integrated Resource Plan has not been approved by the Commission as of this filing.

	MP GENERATION					PURCHASES				COSTS RECOVERED THRU SALES	TOTAL FUEL COST	TOTAL FAC SALES	AVERAGE FUEL COST
	STEAM GENERATION			WIND GEN	HYDRO	SQUARE BUTTE		MARKET					
	COAL COST \$(000)	OIL & OTHER COST \$(000)	TOTAL MWh	TOTAL MWh	TOTAL MWh	COST \$(000)	TOTAL MWh	COST \$(000)	TOTAL MWh	COST \$(000)			
	TRADE SECRET DATA BEGINS					TRADE SECRET DATA BEGINS				TRADE SECRET DATA BEGINS			
JAN 23	\$13,021	\$3,440				\$3,207		\$21,754		(\$17,066)	\$24,320	800,482	\$30.38
FEB	\$11,732	\$2,396				\$2,954		\$18,462		(\$12,957)	\$22,521	727,580	\$30.95
MAR	\$12,894	\$876				\$2,796		\$17,059		(\$12,163)	\$21,354	770,433	\$27.72
APR	\$10,472	\$518				\$3,123		\$16,496		(\$10,816)	\$19,663	709,013	\$27.73
MAY	\$12,612	\$748				\$3,047		\$19,806		(\$16,238)	\$19,834	713,534	\$27.80
JUN	\$12,111	\$1,191				\$2,944		\$26,232		(\$14,813)	\$27,503	686,594	\$40.06
JUL	\$12,442	\$4,080				\$3,230		\$27,168		(\$16,265)	\$30,494	738,523	\$41.29
AUG	\$12,424	\$4,017				\$2,817		\$22,402		(\$13,962)	\$27,555	731,611	\$37.66
SEP	\$11,151	\$825				\$3,123		\$25,319		(\$12,331)	\$27,982	698,821	\$40.04
OCT	\$5,499	\$399				\$3,242		\$24,934		(\$8,755)	\$25,267	708,789	\$35.65
NOV	\$12,015	\$566				\$2,724		\$19,469		(\$12,075)	\$22,653	735,225	\$30.81
DEC 23	\$12,434	\$2,195				\$3,216		\$21,649		(\$14,164)	\$25,302	794,839	\$31.83
TOTAL	\$138,806	\$21,250				\$36,423		\$260,751		(\$161,604)	\$294,447	8,815,444	\$33.49
	Avg Cost per MWh		TRADE SECRET DATA ENDS]			TRADE SECRET DATA ENDS]		TRADE SECRET DATA ENDS]		TRADE SECRET DATA ENDS]			
[TRADE SECRET DATA BEGINS													
JAN 24 - DEC 24													
	Avg Cost per MWh												
[TRADE SECRET DATA BEGINS													
JAN 25 - DEC 25													
	Avg Cost per MWh												
[TRADE SECRET DATA BEGINS													
JAN 26 - DEC 26													
	Avg Cost per MWh												
[TRADE SECRET DATA BEGINS													
JAN 27 - DEC 27													
	Avg Cost per MWh												
[TRADE SECRET DATA BEGINS													
TRADE SECRET DATA ENDS]													

STATE OF MINNESOTA)
) ss
COUNTY OF ST. LOUIS)

AFFIDAVIT OF SERVICE VIA
ELECTRONIC FILING

Tiana Heger of the City of Duluth, County of St. Louis, State of Minnesota, says that on the 31st day of August, 2022, she served Minnesota Power's Reply Comments in **Docket No. E015/AA-22-216** on the Minnesota Public Utilities Commission and the Energy Resources Division of the Minnesota Department of Commerce via electronic filing. The persons on E-Docket's Official Service List for this Docket were served as requested.



Tiana Heger