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Minneapolis, MN 55401

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July 30, 2021

—Via Electronic Filing—

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

RE: REPLY COMMENTS
2022 ANNUAL FUEL FORECAST AND MONTHLY FUEL COST CHARGES
DOCKET NO. E002/AA-21-295

Dear Mr. Seuffert:

Northern States Power Company, doing business as Xcel Energy, submits this Reply to the June 30, 2021 Comments of the Minnesota Department of Commerce, Division of Energy Resources in the above-referenced docket.

Please note that portions of our Reply and attachments are marked as “Not Public.” Certain data is considered to be “not public data” pursuant to Minn. Stat. §13.02, Subd.9, and is “Trade Secret” information pursuant to Minn. Stat. §13.37, subd. 1(b) as this data derives independent economic value, actual or potential, from not being generally known to, and not being readily ascertainable by proper means by other persons who can obtain economic value from its disclosure or use.

Pursuant to Minn. Stat. § 216.17, subd. 3, we have electronically filed this document, and copies have been served on the parties on the attached service list.

If you have any questions regarding this filing please contact Martha Hoschmiller at (612) 330-5973 or martha.e.hoschmiller@xcelenergy.com or me at 612-330-7681 or lisa.r.peterson@xcelenergy.com.

Sincerely,

/s/

LISA PETERSON
MANAGER, REGULATORY ANALYSIS

Enclosures
c: Service List

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STATE OF MINNESOTA
BEFORE THE
MINNESOTA PUBLIC UTILITIES COMMISSION

Katie J. Sieben
Valerie Means
Matthew Schuerger
Joseph K. Sullivan
John A. Tuma

Chair
Commissioner
Commissioner
Commissioner
Commissioner

IN THE MATTER OF THE PETITION OF
NORTHERN STATES POWER COMPANY
FOR APPROVAL OF THE 2022 ANNUAL
FUEL FORECAST AND MONTHLY FUEL
COST CHARGES

DOCKET NO. E002/AA-21-295

REPLY COMMENTS

INTRODUCTION

Northern States Power Company, doing business as Xcel Energy, submits this Reply to the Minnesota Department of Commerce - Division of Energy Resources' June 30, 2021 Comments regarding our Petition requesting approval of the 2022 Annual Fuel Forecast and resulting proposed monthly fuel cost charges in the above-referenced docket.

We appreciate the Department's thorough review of the Company's 2022 fuel forecast and proposed rates and its recommendation that the Commission accept the Company's compliance items and many of the inputs used in our forecast. In this Reply, we provide additional information as requested by the Department and update several inputs to our forecast. The updates to model inputs result in an increase of \$43.8 million in forecast 2022 fuel costs, and an increase of \$1.22/MWh to the forecast annual average rate to \$31.47/MWh. We note that the same drivers to the increases in the 2022 forecast are also driving higher than forecast 2021 fuel costs.

REPLY COMMENTS

A. Asset-based Margins

The Department requested that the Company explain in Reply Comments the difference between the 2022 forecast asset-based margins and the actual 2020 asset-based margins. Asset-based margins for 2022 were forecast at **[PROTECTED]**

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DATA BEGINS **PROTECTED DATA ENDS]** which is approximately **[PROTECTED DATA BEGINS** **PROTECTED DATA ENDS]** than actual 2020 margins. The margin forecast for 2022 is lower due to higher forecast load and natural gas price for 2022. As shown in Department Table 1, net system load at the production level is forecast to be 2.3 percent higher than actual load in 2020, which was reduced as a result of the pandemic. Higher load results in less surplus generation available for asset-based sales, and correspondingly less in margins. In addition, the natural gas price forecast for 2022 is 45 percent higher than average actual gas prices for 2020. Higher gas prices in the forecast for 2022 means that the underlying cost of gas-fired generation used to make asset-based sales is higher, and therefore resulting margins from those units will be lower than observed in 2020.

Table 1 below shows the updated margin forecast based on the updated annual fuel forecast the Company is presenting in these Reply Comments. The change in the margin forecast is driven by the modeling inputs that have changed as part of our forecast update and as discussed more fully in section D below.

Table 1:
Asset-Based Margin Updated Reply Forecast (\$ millions)

	Revenue	Cost	Margin
[PROTECTED DATA BEGINS			
2022			

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B. Outage Costs

The Department notes that the Company's 2022 forecasted outage costs are significantly higher than in any prior year, even though the estimated 2022 total outage MWhs are significantly less than any prior year. The Department's Table 6 lists the 2022 forecast values (Line 1, Columns (b), (d), and (f)) and 2020 actual values (Line 3, Columns (d) and (f)) incorrectly. Once the corrected, comparable values are populated in the table, it shows that the forecasted 2022 outage costs are in-line with the forecasted outage MWhs and that the 2022 outage forecast is significantly less than the 2021 outage forecast. We have provided a corrected Department Table 6 below. Updated values are shown in red.

We have added line 1a to the table to show the outage forecast as updated in this Reply. The updated 2022 outage forecast remains significantly less than the 2021 outage forecast and in line with recent historical outage costs. The updated 2022 forecast shows greater outage costs than in our initial forecast because replacement

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power costs went up due to the increase in the locational marginal pricing (LMP) forecast, described below. Additional details of the updated outage forecast are provided in Attachment H.

**Corrected Department Table 6:
Forecasted Actual, and Average Outage MWh and Costs**

	Year	Planned Outage MWh (a)	Planned Outage Costs (b)	Unplanned Outage MWh (c)	Unplanned Outage Costs (d)	Total Outage MWh (e)	Total Outage Costs (f)
		[PROTECTED DATA BEGINS]					
1	2022 Initial Forecast						
1a	2022 Reply Forecast						
2	2021 Forecast						
		PROTECTED DATA ENDS]					
3	2020 Actuals	1,367,612	\$571,240	1,212,160	\$11,348,069	2,579,772	\$11,919,308
4	2019 Actuals	2,444,517	\$17,753,190	1,063,497	\$4,936,021	3,508,014	\$22,689,211
5	2018 Actuals	2,862,286	\$15,964,482	1,547,119	\$8,160,870	4,409,405	\$24,125,452

Columns (b) and (d) in Department Table 6 are labeled “Energy Costs due to Outages” in Part B, Attachment 7 of our initial Petition and in Attachment A to Department Information Request No. 7. These columns subtract the unit cost from the replacement power cost to get the delta between normal operational cost of the unit and additional costs due to outages. The Department included values from the “Replacement Cost” columns for Columns (b), (d), and (f).

We hope this correction alleviates the Department’s concerns regarding our 2022 outage forecast.

C. Wind Curtailment Costs

The Department noted in Comments that our 2022 wind curtailment cost forecast is significantly higher than our 2021 wind curtailment cost forecast. While this is correct, the 2022 forecast is lower than the actual wind curtailment that we currently expect will occur in 2021 largely because of higher than expected regional congestion and the resulting negative LMP in the MISO energy market. In our 2021 fuel forecast, we updated the wind curtailment forecast methodology in order to capture the impacts of a significant amount of new generation going into service prior to completion of all required transmission upgrades along with planned transmission outages. However, at the time the 2021 forecast was completed, the impact of the

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new generation on congestion was not clear, and the scope of the transmission outages occurring in 2021 was unknown.

We have used a similar methodology for the 2022 forecast as we expect higher curtailment to continue for the foreseeable future – but likely lower than the curtailment that occurred in 2020¹ and 2021.² The Company believes that curtailment in 2022 will be related more to congestion caused by the significant amount of new generation that has gone into service as opposed to transmission outages.

We calculated the 2022 wind curtailment costs by first identifying years where a significant amount of new generation went into service prior to completion of all transmission upgrades. We excluded the highest curtailment cost year as an outlier and then averaged the curtailment percentage for the remaining highest years of curtailment costs where curtailment was greater than 3 percent.³ Table 2 below shows the calculation for the 2022 forecast. To estimate the curtailment costs for 2022, the 5.91 percent average was applied to the costs of the wind projects we expect to be impacted by curtailment in 2022. This resulted in a 2022 curtailment forecast of **[PROTECTED DATA BEGINS PROTECTED DATA ENDS]**. These wind projects are shown in Part G, Workpaper 9 of our May 1 initial filing.

Table 2:
Historical Wind Curtailment Costs

Year	% Curtailment
2003	4.24%
2005	5.31%
2007	6.44%
2013	6.30%
2014	5.74%
2015	3.81%
2020	9.52%
Average	5.91%

The Company provided a detailed discussion of wind curtailment in the Wind Portfolio Acquisition proceeding, Docket No. E002/M-16-777. At that time, the Company discussed that we expect wind curtailment to be higher when the new projects first go into service, and then decline as new transmission and other changes

¹ 2020 actual curtailment costs were \$19.6 million.

² 2021 actual curtailment costs through June were approximately \$18.4 million.

³ The historical average curtailment for all years was approximately 3 percent, so we made our calculation using the values that were higher than average.

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on the MISO system occur to better accommodate increased wind penetration. While we continue to believe that this will be the case, there is no certainty as to when, and if, the numerous wind generation projects currently in the development queue will actually come to fruition.

D. Forecast Input Updates

As outlined in the procedural schedule for fuel clause reform, utilities are able to update their forecast inputs with their July Reply Comments. We have updated the following inputs, which we consider to be significant cost drivers to any year's fuel forecast, and those that should be updated to remain true to an objective of reform to provide the most accurate forecast of test year costs that we are able at the time of Commission review. The updates to model inputs result in an increase of \$43.8 million in forecast 2022 fuel costs, and an increase of \$1.22/MWh to the forecast annual average rate to \$31.47/MWh. We note that the same drivers to the increases in the 2022 forecast are also driving higher than forecast 2021 fuel costs. These drivers are discussed in more detail below. We provide Attachments A, B, and C to summarize the updated forecast, which correspond to Part A, Attachments 1, 2, and 3 of the May 1 forecast filing.

1. Coal Prices

We have updated market prices and escalation assumptions for coal and rail costs. Forecast coal prices have remained relatively flat, while rail and diesel fuel surcharge prices have increased resulting in an overall price increase for 2022. Attachment D shows a comparison of updated coal prices as compared to those assumed in our original filing. The overall impact on coal generation cost/MWh is an increase of 2.0 percent as compared to our original filing.

2. Natural Gas Prices

Natural gas prices have been updated to NYMEX closing prices as of July 15, 2021. The annual average price of natural gas for Ventura has increased to \$3.27/MMBtu, which is 22.4 percent higher than our original filing. A comparison of the updated monthly natural gas prices to the prices assumed in our original May 1 filing is shown in Attachment E.

3. Electric Market Prices

Our price forecast for MISO LMP has been updated to correspond with the date of the updated natural gas prices from market close on July 15, 2021. The average

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annual price has increased to \$19.85/MWh, which is 11.9 percent higher than our original filing. A comparison of the updated monthly LMPs to the LMPs assumed in our original May 1 filing is shown in Attachment E.

4. MISO Costs

We updated MISO costs based on the most recent historical data available through June 2021. Details on the updated costs by MISO charge type are shown in Attachment F. The net of MISO Day 2 and Day 3 costs and revenues in the reply forecast is **[PROTECTED DATA BEGINS PROTECTED DATA ENDS]** resulting in a **[PROTECTED DATA BEGINS PROTECTED DATA ENDS]** from the initial filing forecast of **[PROTECTED DATA BEGINS PROTECTED DATA ENDS]**. The primary driver of **[PROTECTED DATA BEGINS PROTECTED DATA ENDS]** as shown in Attachment F.

5. Sales Forecast

We have updated the load forecast in PLEXOS to reflect the most current customer sales forecast for 2022. This has increased total native system load by approximately **[PROTECTED DATA BEGINS PROTECTED DATA ENDS]**. A comparison of the updated monthly load forecast assumed in our original May 1 filing is shown in Attachment G.

E. Revised Monthly Rate Summary

Table 3 below summarizes the rates by month and by customer class revised to reflect the updated 2022 forecast inputs using the Class Ratio Adjustment. See Attachment A, pages 2 and 3 for details.

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Table 3:
Revised 2022 Monthly Fuel Clause Rates by Customer Class (\$/kWh)

Month	Residential	Commercial & Industrial				Outdoor Lighting
		Non-Demand	Demand			
			Non-TOD	On-Peak	Off-Peak	
January	\$0.02597	\$0.02630	\$0.02548	\$0.03184	\$0.02086	\$0.02038
February	\$0.03066	\$0.03104	\$0.03008	\$0.03761	\$0.02460	\$0.02403
March	\$0.03268	\$0.03309	\$0.03206	\$0.04009	\$0.02623	\$0.02562
April	\$0.03256	\$0.03297	\$0.03194	\$0.03992	\$0.02614	\$0.02554
May	\$0.03453	\$0.03496	\$0.03387	\$0.04234	\$0.02772	\$0.02708
June	\$0.03979	\$0.04029	\$0.03903	\$0.04880	\$0.03194	\$0.03119
July	\$0.03392	\$0.03435	\$0.03328	\$0.04161	\$0.02722	\$0.02658
August	\$0.03386	\$0.03428	\$0.03321	\$0.04154	\$0.02716	\$0.02653
September	\$0.03328	\$0.03369	\$0.03265	\$0.04081	\$0.02671	\$0.02609
October	\$0.03116	\$0.03155	\$0.03057	\$0.03822	\$0.02501	\$0.02443
November	\$0.02891	\$0.02927	\$0.02836	\$0.03546	\$0.02320	\$0.02266
December	\$0.02662	\$0.02696	\$0.02612	\$0.03265	\$0.02138	\$0.02088

We will make a tariff compliance filing within 10 days of the Commission Order in this docket to reflect the final approved rates.

CONCLUSION

The Company appreciates this opportunity to submit its Reply to the Department's review of our 2022 fuel forecast. Through this Reply, we have provided additional information in response to the questions raised by the Department and have updated several inputs to the 2022 forecast. We respectfully request that the Commission accept and approve Xcel Energy's 2022 Annual Fuel Forecast and resulting proposed monthly fuel cost charges for the months January-December 2022 as updated and supplemented by this Reply.

Dated: July 30, 2021

Northern States Power Company

Northern States Power Company
Electric Utility - State of Minnesota
Jan 2022 - Dec 2022

Protected Data is shaded.

Line #	Updated July 2021	1/1/2022	2/1/2022	3/1/2022	4/1/2022	5/1/2022	6/1/2022	7/1/2022	8/1/2022	9/1/2022	10/1/2022	11/1/2022	12/1/2022	2022 Total
1	Costs in \$1,000's													
2														
3	Own Generation													
4	Fossil Fuel	[PROTECTED DATA BEGINS]												
5	Coal													
6	Wood/RDF													
7	Natural Gas CC													
8	Natural Gas & Oil CT													
9	Subtotal													
10														
11	Hydro													
12	Solar													
13	Wind													
14														
15	Nuclear Fuel													
16														
17	Purchased Energy													
18	LT Purchased Energy (Gas)													
19	LT Purchased Energy (Solar)													
20	Community Solar*Gardens	\$9,148	\$12,913	\$18,038	\$20,576	\$23,802	\$20,816	\$24,489	\$23,331	\$16,859	\$13,603	\$9,432	\$7,729	\$200,737
21	LT Purchased Energy (Wind)													
22	LT Purchased Energy (Other)													
23	ST Market Purchases													
24	MISO Market Charges													
25	Subtotal													
26														
27	Total System Costs													
28														
29	Less Sales Revenue													
30	Less Solar Gardens - Above Market Cost	(\$6,606)	(\$10,191)	(\$15,311)	(\$17,195)	(\$19,458)	(\$16,954)	(\$18,766)	(\$17,783)	(\$13,967)	(\$11,607)	(\$7,882)	(\$6,132)	(\$161,853)
31	Less Renewable Connect Pilot													
32	Less Renewable Connect MTM													
33	Less Renewable Connect LT													
34														
35	Net System Costs													
36														
37	Net System Sales													
38	Calendar Month MWh Sales													
39														
40	Less Renewable Connect Pilot MWh Sales													
41	Less Renewable Connect MTM MWh Sales													
42	Less Renewable Connect LT MWh Sales													
43														
44	Net Sys MWh Sales													38,081,074
45														
46	System Cost in cents/kWh													
47														
48	Minnesota Juris. MWh Sales													
49														
50	Less Renewable Connect Pilot MWh Sales													
51	Less Renewable Connect MTM MWh Sales													
52	Less Renewable Connect LT MWh Sales													
53														
54	Net MN MWh Sales													26,988,335
55														
56	MN Fuel Cost													
57	Solar Gardens - Above Market Cost	\$6,606	\$10,191	\$15,311	\$17,195	\$19,458	\$16,954	\$18,766	\$17,783	\$13,967	\$11,607	\$7,882	\$6,132	\$161,853
58	Laurentian Buyout costs													
59	Pine Bend Buyout Cost													
60	Benson Buyout Cost													
61														
62	Forecast MN FCA Costs													\$849,447
63														
64														
65	Forecast MN FCA Cost in cents/kWh													3.147
66														
67														
68	Forecast MN FCA Cost in \$/MWh													31.47

PROTECTED DATA ENDS]

Updated July 2021

Proposed 2022 Monthly Fuel Clause Charges (\$/KWh)

	Residential	Commercial & Industrial				Outdoor Lighting
		Non-Demand	Demand			
			Non-TOD	On-Peak	Off-Peak	
January	\$0.02597	\$0.02630	\$0.02548	\$0.03184	\$0.02086	\$0.02038
February	\$0.03066	\$0.03104	\$0.03008	\$0.03761	\$0.02460	\$0.02403
March	\$0.03268	\$0.03309	\$0.03206	\$0.04009	\$0.02623	\$0.02562
April	\$0.03256	\$0.03297	\$0.03194	\$0.03992	\$0.02614	\$0.02554
May	\$0.03453	\$0.03496	\$0.03387	\$0.04234	\$0.02772	\$0.02708
June	\$0.03979	\$0.04029	\$0.03903	\$0.04880	\$0.03194	\$0.03119
July	\$0.03392	\$0.03435	\$0.03328	\$0.04161	\$0.02722	\$0.02658
August	\$0.03386	\$0.03428	\$0.03321	\$0.04154	\$0.02716	\$0.02653
September	\$0.03328	\$0.03369	\$0.03265	\$0.04081	\$0.02671	\$0.02609
October	\$0.03116	\$0.03155	\$0.03057	\$0.03822	\$0.02501	\$0.02443
November	\$0.02891	\$0.02927	\$0.02836	\$0.03546	\$0.02320	\$0.02266
December	\$0.02662	\$0.02696	\$0.02612	\$0.03265	\$0.02138	\$0.02088

Northern States Power Company
Electric Utility - State of Minnesota
Monthly Fuel Clause Charge January 2022 - December 2022
Updated July 2021

Docket No. E002/AA-21-295
Reply Comments Attachment A
Corresponds to May 1 Part A, Attachment 1
Page 3 of 3

Month Fuel Cost Charges Applied to Customer Billing														Jan-22	Feb-22	Mar-22	Apr-22	May-22	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22	12 Months
FORECASTED COST OF FUEL																										
[1]	Forecasted MN Cost in \$1,000's																								\$849,447	
[2]	Forecasted Minn. Retail Sales Subject to FCC *																								26,988,335	
[3]	Forecasted MN Cost in cents/kWh [1]/[2]*100																								3.147¢	
														PROTECTED DATA ENDS]												
	Class FAF Ratio																									
[4]	Residential FAF Ratio													1.0177	1.0177	1.0177	1.0177	1.0177	1.0177	1.0177	1.0177	1.0177	1.0177	1.0177	1.0177	1.0177
[5]	C&I Non-Demand FAF Ratio													1.0305	1.0305	1.0305	1.0305	1.0305	1.0305	1.0305	1.0305	1.0305	1.0305	1.0305	1.0305	
[6]	C & I Demand Non-TOD FAF Ratio													0.9984	0.9984	0.9984	0.9984	0.9984	0.9984	0.9984	0.9984	0.9984	0.9984	0.9984	0.9984	
[7]	C & I Demand TOD On-Peak FAF Ratio													1.2486	1.2486	1.2486	1.2486	1.2486	1.2486	1.2486	1.2486	1.2486	1.2486	1.2486	1.2486	
[8]	C & I Demand TOD Off-Peak FAF Ratio													0.8166	0.8166	0.8166	0.8166	0.8166	0.8166	0.8166	0.8166	0.8166	0.8166	0.8166	0.8166	
[9]	Outdoor Lighting FAF Ratio													0.7976	0.7976	0.7976	0.7976	0.7976	0.7976	0.7976	0.7976	0.7976	0.7976	0.7976	0.7976	
														PROTECTED DATA ENDS]												
2022 Monthly Fuel Cost Charges														[PROTECTED DATA BEGINS												
[10]	Residential [3]*[4]																									
[11]	C & I Non-Demand [3]*[5]																									
[12]	C & I Demand Non-TOD [3]*[6]																									
[13]	C & I Demand TOD On-Peak [3]*[7]																									
[14]	C & I Demand TOD Off-Peak [3]*[8]																									
[15]	Outdoor Lighting [3]*[9]																									
	MN Retail MWh Subject to FCA *																									
[16]	Residential																									
[17]	C & I Non-Demand																									
[18]	C & I Demand Non-TOD																									
[19]	C & I Demand TOD On-Peak																									
[20]	C & I Demand TOD Off-Peak																									
[21]	Outdoor Lighting																									
[22]	Total																								26,631,660	
2022 Class Fuel Cost Revenues in \$1,000's																										
[23]	Residential [10]*[16]/100																									
[24]	C & I Non-Demand [11]*[17]/100																									
[25]	C & I Demand Non-TOD [12]*[18]/100																									
[26]	C & I Demand TOD On-Peak [13]*[19]/100																									
[27]	C & I Demand TOD Off-Peak [14]*[20]/100																									
[28]	Outdoor Lighting [15]*[21]/100																									
[29]	Total [23]+[24]+[25]+[26]+[27]+[28]																								\$848,311	
[30]	2022 Cost vs Revenue Diff in \$1,000's [1]-[29]																									
[31]	2022 Cost vs Revenue Diff in \$1,000's [30]																									
[32]	MN Retail MWh Subject to FCA * [22]																									
[33]	Monthly Class Ratio Adjustment [31]/[32]*100																									
														PROTECTED DATA ENDS]												
2022 Proposed Monthly Fuel Cost Charges in \$/kWh																										
[34]	Residential [10]/100+[33]/100													\$0.02597	\$0.03066	\$0.03268	\$0.03256	\$0.03453	\$0.03979	\$0.03392	\$0.03386	\$0.03328	\$0.03116	\$0.02891	\$0.02662	
[35]	C & I Non-Demand [11]/100+[33]/100													\$0.02630	\$0.03104	\$0.03309	\$0.03297	\$0.03496	\$0.04029	\$0.03435	\$0.03428	\$0.03369	\$0.03155	\$0.02927	\$0.02696	
[36]	C & I Demand Non-TOD [12]/100+[33]/100													\$0.02548	\$0.03008	\$0.03206	\$0.03194	\$0.03387	\$0.03903	\$0.03328	\$0.03321	\$0.03265	\$0.03057	\$0.02836	\$0.02612	
[37]	C & I Demand TOD On-Peak [13]/100+[33]/100													\$0.03184	\$0.03761	\$0.04009	\$0.03992	\$0.04234	\$0.04880	\$0.04161	\$0.04154	\$0.04081	\$0.03822	\$0.03546	\$0.03265	
[38]	C & I Demand TOD Off-Peak [14]/100+[33]/100													\$0.02086	\$0.02460	\$0.02623	\$0.02614	\$0.02772	\$0.03194	\$0.02722	\$0.02716	\$0.02671	\$0.02501	\$0.02320	\$0.02138	
[39]	Outdoor Lighting [15]/100+[33]/100													\$0.02038	\$0.02403	\$0.02562	\$0.02554	\$0.02708	\$0.03119	\$0.02658	\$0.02653	\$0.02609	\$0.02443	\$0.02266	\$0.02088	
* Excluded Renewable*Connect MWh																										
2022 Proposed Costs verses Revenues																										
2022 Class Fuel Cost Revenues in \$1,000's														[PROTECTED DATA BEGINS												
[40]	Residential [34]*[16]																									
[41]	C & I Non-Demand [35]*[17]																									
[42]	C & I Demand Non-TOD [36]*[18]																									
[43]	C & I Demand TOD On-Peak [37]*[19]																									

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Docket No. E002/AA-21-295
Reply Comments Attachment B
Corresponds to May 1 Part A, Attachment 2
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Northern States Power Company
Electric Utility - State of Minnesota

Jan 2022 - Dec 2022

Protected Data is shaded.

Updated July 2021

Line #		1/1/2022	2/1/2022	3/1/2022	4/1/2022	5/1/2022	6/1/2022	7/1/2022	8/1/2022	9/1/2022	10/1/2022	11/1/2022	12/1/2022	2022 Total
1	Energy in GWhs													
2														
3	Own Generation													
4	Fossil Fuel	[PROTECTED DATA BEGINS]												
5	Coal													
6	Wood/RDF													
7	Natural Gas CC													
8	Natural Gas & Oil CT													
9	Subtotal													
10														
11	Hydro													
12	Solar													
13	Wind													
14														
15	Nuclear Fuel													
16														
17	Purchased Energy													
18	LT Purchased Energy (Gas)													
19	LT Purchased Energy (Solar)													
20	Community Solar*Gardens	71.9	101.4	141.7	161.6	187.0	163.5	192.4	183.3	132.4	106.9	74.1	60.7	1,577.0
21	LT Purchased Energy (Wind)													
22	LT Purchased Energy (Other)													
23	ST Market Purchases													
24	Subtotal													
25														
26	Total System GWh													
27														
28	Less Sales GWh													
29	Less Renewable Connect Pilot GWh													
30	Less Renewable Connect MTM GWh													
31	Less Renewable Connect LT GWh													
32														
33	Net System GWh													41,500.8

PROTECTED DATA ENDS]

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Northern States Power Company
Electric Utility - State of Minnesota

Jan 2022 - Dec 2022

Protected Data is shaded.

Updated July 2021

Line #		1/1/2022	2/1/2022	3/1/2022	4/1/2022	5/1/2022	6/1/2022	7/1/2022	8/1/2022	9/1/2022	10/1/2022	11/1/2022	12/1/2022	2022 Total
1	<i>\$/MWh</i>													
2														
3	Own Generation													
4	Fossil Fuel	[PROTECTED DATA BEGINS]												
5	Coal													
6	Wood/RDF													
7	Natural Gas CC													
8	Natural Gas & Oil CT													
9	Subtotal													
10														
11	Hydro													
12	Solar													
13	Wind													
14														
15	Nuclear Fuel													
16														
17	Purchased Energy													
18	LT Purchased Energy (Gas)													
19	LT Purchased Energy (Solar)													
20	Community Solar*Gardens	\$127.29	\$127.29	\$127.29	\$127.29	\$127.29	\$127.29	\$127.29	\$127.29	\$127.29	\$127.29	\$127.29	\$127.29	\$127.29
21	LT Purchased Energy (Wind)													
22	LT Purchased Energy (Other)													
23	ST Market Purchases													
24	Subtotal													
25														
26	Total System \$/MWh													
27														
28	Less Sales													
29	Less Solar Gardens - Above Market Cost	\$91.92	\$100.46	\$108.04	\$106.37	\$104.06	\$103.68	\$97.55	\$97.02	\$105.45	\$108.62	\$106.36	\$100.99	\$102.63
30	Less Renewable Connect Pilot													
31	Less Renewable Connect MTM													
32	Less Renewable Connect LT													
33														
34	Net System \$/MWh													\$22.58

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Northern States Power Company
Electric Utility - State of Minnesota
Coal Pricing - Updated July 2021

Protected Data is shaded.
2022 Forecast Year

		Total Price						Coal Price						Rail Price						Diesel Price						
		[PROTECTED DATA BEGINS]																								
July 31 Reply Filing																										
May 1 Filing																										
Change																										

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Northern States Power Company
Electric Utility - State of Minnesota
Gas and LMP Pricing - Updated July 2021

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Reply Comments Attachment E
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Protected Data is shaded.

2022 Forecast Year

Ventura \$/MMBtu			
May 1 Filing	July 31 Reply Filing	Change	
1/1/2022	3.89	4.81	
2/1/2022	3.81	4.76	
3/1/2022	2.85	3.63	
4/1/2022	2.34	2.87	
5/1/2022	2.21	2.71	
6/1/2022	2.21	2.69	
7/1/2022	2.29	2.77	
8/1/2022	2.30	2.78	
9/1/2022	2.24	2.73	
10/1/2022	2.29	2.78	
11/1/2022	2.60	3.12	
12/1/2022	3.09	3.64	
Average	2.68	3.27	0.60
			22.4%

LMP \$/MWh		
May 1 Filing	July 31 Reply Filing	Change
[PROTECTED DATA BEGINS		
17.73	19.85	2.12
PROTECTED DATA ENDS]		11.9%

MISO Charge Category	May 1 Filing	July 31 Reply Filing	Change
(in \$1000s)	[PROTECTED DATA BEGINS		
Congestion			
FTR			
Incremental Transmission losses			
RSG/RNU			
ASM			
TOTAL			

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[PROTECTED DATA BEGINS

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**Northern States Power Company
Electric Utility - State of Minnesota
Load Forecast - Updated July 2021**

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**2022 Forecast Year
GWH**

	July Reply	May Initial	Delta
1/1/2022	3,701	3,718	(17)
2/1/2022	3,287	3,234	53
3/1/2022	3,466	3,561	(95)
4/1/2022	3,114	3,161	(46)
5/1/2022	3,364	3,334	30
6/1/2022	3,701	3,633	68
7/1/2022	4,229	4,163	67
8/1/2022	4,116	4,035	81
9/1/2022	3,430	3,326	104
10/1/2022	3,403	3,323	81
11/1/2022	3,320	3,247	72
12/1/2022	3,658	3,598	60
2022	42,790	42,332	458

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**Northern States Power
Electric Utility - State of Minnesota
Replacement Power Costs Estimate - Updated July 2021**

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Planned								Unplanned							
Unit	Type	Outage MWh	Replacement Cost (\$)	Unit Cost (\$)	Energy Cost Due to Outages (\$)	Replacement Cost \$/MWh	Unit Cost \$/MWh	Outage Cost \$/MWh	Outage MWh	Replacement Cost (\$)	Unit Cost (\$)	Energy Cost Due to Outages (\$)	Replacement Cost \$/MWh	Unit Cost \$/MWh	Outage Cost \$/MWh
		[PROTECTED DATA BEGINS]													
Black Dog 25	NSP CC														
High Bridge 1x1	NSP CC														
High Bridge 2x1	NSP CC														
Riverside 1x1	NSP CC														
Riverside 2x1	NSP CC														
Allen S King	NSP Coal														
Sherburne 1	NSP Coal														
Sherburne 2	NSP Coal														
Sherburne 3	NSP Coal														
Monticello	NSP Nuclear														
Prairie Island 1	NSP Nuclear														
Prairie Island 2	NSP Nuclear														
Total															
Combined															
[PROTECTED DATA ENDS]															

CERTIFICATE OF SERVICE

I, Crystal Syvertsen, hereby certify that I have this day served copies of the foregoing document on the attached list of persons.

xx by depositing a true and correct copy thereof, properly enveloped
with postage paid in the United States mail at Minneapolis, Minnesota

xx electronic filing

DOCKET No. E002/AA-21-295

Dated this 30th day of July 2021

/s/

Crystal Syvertsen
Regulatory Administrator

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