

June 30, 2021

**PUBLIC DOCUMENT**

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

RE: **PUBLIC Comments of the Minnesota Department of Commerce – Division of Energy Resources**  
Docket No. E002/AA-21-295

Dear Mr. Seuffert:

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

Northern States Power Company's d/b/a Xcel Energy, Petition for approval of its Annual Fuel Forecast in support of proposed monthly fuel cost charges for the months of January-December 2022.

The Department recommends that the Minnesota Public Utilities Commission (Commission) **approve Xcel Energy's 2022 fuel forecast with the changes discussed herein.** The Department is available to answer any questions that the Commission may have.

Sincerely,

/s/ MARK JOHNSON  
Analyst Coordinator

MJ/ar  
Attachment



## Before the Minnesota Public Utilities Commission

### PUBLIC Comments of the Minnesota Department of Commerce Division of Energy Resources

Docket No. E002/AA-21-295

#### I. SUMMARY

On April 20, 2021, Northern States Power Company d/b/a Xcel Energy, Incorporated – Electric Utility (Xcel or the Company) filed its 2022 Fuel Forecast Report to comply with the requirements of the Minnesota Public Utilities Commission’s (Commission) Orders<sup>1</sup> in Docket No. E999/CI-03-802 and the December 2020 Order in E002/AA-20-417. In its 2022 Fuel Forecast Report, Xcel requests approval of its Forecast of Automatic Adjustment Charges for the period January 2022 through December 2022, as shown in Part A, Attachment 1 of its petition.

#### II. BACKGROUND

Minn. Stat. § 216B.16, subd. 7, authorizes the Commission to allow a public utility to automatically adjust charges for the cost of fuel. Prior to 2020, utilities would (1) adjust their FCA rates monthly to reflect, on a per kWh basis, deviations from the base cost of energy established in the utility’s most recent general rate case and (2) file monthly and annual reports to be reviewed for accuracy and prudence.

In 2003, the Commission initiated an investigation (Docket No. E999/CI-03-802) to explore possible changes to the FCA and invited stakeholders to comment on the purpose, structure, rationale, and relevance of the FCA. The Commission’s December 19, 2017 *Order* in Docket No. E999/CI-03-802 approved certain reforms to the FCA mechanism. Specifically, Point 1 of the December 19, 2017 *Order* approved the Department’s FCA reform proposals as follows:

- a. the Commission will set recovery of the utility’s fuel, power purchase agreements, and other related costs (fuel rates) in a rate case or an annual fuel clause adjustment filing unless a utility can show a significant unforeseen impact.
- b. each electric utility will publish the monthly fuel rates in advance of each year to give customers notice of the next year’s monthly electric fuel rates.
- c. the monthly fuel clause adjustment will not operate – each electric utility will charge an approved monthly rate.

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<sup>1</sup> December 19, 2017, December 12, 2018, and June 12, 2019.

- d. utilities will be allowed to track any changes in \$/MWh fuel costs that occur over the year and there will be no carrying charge on the tracker.
- e. annually, each electric utility will report actual \$/MWh fuel costs in each month by fuel type (including identification of costs from specific power purchase agreements) and compare the annual revenue based on the fuel rates set by the Commission with annual revenues based on actual costs for the year.
- f. each electric utility will refund any over-collections and show prudence of costs before allowing recovery of under-collections. If annual revenues collected (\$/MWh) are higher than total actual costs, the utility must refund the over-collection through a true-up mechanism. If annual revenues collected are lower than total actual costs, the utility must show why it is reasonable to charge the higher costs (under-collections) to ratepayers through a true-up mechanism.

The Commission's December 12, 2018 *Order* in Docket No. E999/CI-03-802 modified certain aspects of and added to the FCA reform previously approved in the Commission's December 19, 2017 *Order* in the same docket. In particular, the December 12, 2018 *Order*:

- Established a January 1, 2020 implementation date for the FCA reform.
- Required the utilities, following the implementation of the FCA reform, to file an annual true-up by March 1 of each year following the relevant calendar year.
- Discontinued the requirement for utilities to submit monthly automatic adjustment filings.
- Granted the relevant utilities a variance to Minnesota Rule 7825.2600, subp. 3, which requires that the FCA be applied to base recovery of fuel costs on a monthly basis. Under the new FCA process, the monthly FCA would be irrelevant, because, instead, the Commission would use an annual forecast of fuel costs to adjust base fuel rates annually.

The Commission's June 12, 2019 *Order* in Docket No. E999/CI-03-802 provided additional details to finalize the FCA reform. Specifically, the June 12, 2019 *Order* approved, among other things:

- Variances to Minnesota Rules 7825.2800 through 7825.2840 to accommodate the new FCA process by modifying the filing deadlines contained in these rules.
- A procedural schedule, as shown in Appendix A of the *Order*.
- A threshold of plus or minus 5 percent of all FCA costs and revenues to determine whether an event qualifies as a significant, unforeseen impact that may justify an adjustment to the approved fuel rates. Utilities are permitted to implement revised rates following a 30-day notice period, subject to a full refund, if no party objects to the revised rates.
- Tracking under or over-recovered FCA costs as regulatory assets or liabilities, respectively, using FERC Account 182.3.

- Information requirements for the annual forecast and true-up filings for all electric utilities, including the reporting requirement changes outlined in Attachments 1, 2, and 3 of the March 1, 2019 joint comments<sup>2</sup> in Docket No. E999/CI-03-802 and the requirement that the annual true-up filings include a complete analysis and discussion of the consequences of self-commitment and self-scheduling of their generators, including the annual difference between production costs and corresponding prevailing market prices.
- Tariff changes reflected in Attachments 4, 5, and 6 of the March 1, 2019 joint comments<sup>3</sup> in Docket No. E999/CI-03-802.
- Discontinuation of Xcel's reporting of Part H, Section 4 narrative and Schedule 1 (transformers); Part I (MISO Day 1); Part J, Section 5, Schedules 1, 3-6 (MISO Day 2); Part K, Section 5, Schedule 3 (transformer maintenance); Part K, Section 4, Schedule 3 (designated resource planning for MISO).

On May 1, 2019, in Docket No. E002/AA-19-293, Xcel filed its initial petition requesting approval of its 2020 annual forecast for its FCA. The Company initially forecasted 28,627,389 mega-watt-hours (MWhs) in Minnesota sales and \$796,349,000 in Minnesota fuel/purchased power costs, for an average fuel/purchased power cost per MWh of \$27.81.<sup>4</sup> Subsequently, in reply comments filed July 31, 2019 in the same docket, Xcel revised its forecasted 2020 Minnesota fuel/purchased power costs to \$796,051,000.<sup>5</sup> The Commission approved Xcel's revised 2020 forecast in its November 14, 2019 *Order* in Docket No. E002/AA-19-293.

Pursuant to the Commission's November 14, 2019 *Order* in Docket No. E002/AA-19-293, on January 13, 2020, Xcel filed a compliance report providing a list of all MISO charges and revenue offsets that are embedded in the 2020 fuel rates and the costs and revenues for asset-based margins that are embedded in the Company's fuel forecast.

On December 19, 2019, Xcel filed a petition requesting Commission approval to operate its King and Sherco 2 coal-fired plants on a seasonal basis in Docket No. E002/M-19-809. The Commission approved Xcel's request in its July 15, 2020 *Order* in the same docket.

On April 23, 2020 Xcel filed a petition requesting that the Commission approve a \$25 million reduction to its monthly June 2020 to August 2020 fuel forecasts rates to provide immediate relief to customers due to the COVID-19 pandemic in Docket Nos. E002/M-20-437 and E002/AA-19-293. The Commission approved Xcel's request in its June 9, 2020 *Order* in the same dockets.

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<sup>2</sup> In the March 1, 2019 joint comments, Attachment 3 corresponds to Xcel.

<sup>3</sup> In the March 1, 2019 joint comments, Attachment 6 corresponds to Xcel and reflects the Company's current FCA Rate Schedule, Section 5, Sheet Nos. 91.0 – 91.3, as approved by the Commission's June 12, 2019 *Order* in Docket No. E-999/CI-03-802 (Part A, Attachment 9 to the instant Petition is the proposed nineteenth revision of the Company's FCA tariff).

<sup>4</sup> See Part A, Attachment 1, Page 1 of 2 of Xcel's initial May 1, 2019 filing in Docket No. E002/AA-19-293.

<sup>5</sup> See Attachment A of Xcel's July 31, 2019 reply comments in Docket No. E002/AA-19-293.

On May 1, 2020, Xcel filed its 2021 Forecasted Fuel and Purchased Energy Report for calendar 2021 in Docket No. E002/AA-20-417. On December 22, 2020, the Commission approved Xcel's Forecasted Fuel and Purchased Energy Report and fuel rates for calendar year 2021.

On February 26, 2021, Xcel filed its 2020 annual true-up report seeking to charge customers an additional \$3.8 million for under-recovered 2020 FCA costs in Docket No. E002/AA-19-293. The Commission approved Xcel's request at the June 24, 2021 Agenda meeting.

On April 20, 2021, Xcel filed its 2022 Forecasted Fuel and Purchased Energy Report for approval of fuel rates for 2022 in the instant petition. The Minnesota Department of Commerce (Department) provides its analysis and recommendations below.

### **III. ANNUAL COMPLIANCE/REPORTING REQUIREMENTS**

The Commission's June 12, 2019 Order in Docket No. E999/CI-03-802, Ordering Point No. 7, approved Xcel's reporting requirements for the Forecast Report and True-up Reports as provided in Attachment 3 of the Department's March 1, 2019 Joint Comments. Xcel provided a compliance matrix in Part C, Attachment 1 of its 2022 Forecast Report.

The Department verified that the Company provided the required information as follows.

#### **Policies and Actions (Minnesota Rule 7825.2800):**

Page 20 and Part D, Attachments 1-10 of the 2022 Forecast Report.

#### **Base Cost of Fuel (Minnesota Rule 7825.2810):**

Page 20 and Part A, Attachment 1 of the 2022 Forecast Report.

#### **Billing Adjustment Amounts Charge to Customers by Each Type of Energy Cost (Minnesota Rule 7825.2810):**

Pages 19-20 of the 2022 Forecast Report.

#### **Total Cost of Fuel Delivered to Customers (Minnesota Rule 7825.2810)**

Pages 20-21 of the 2022 Forecast Report.

#### **Revenue Collected from Customers for Energy Delivered (Minnesota Rule 7825.2810)**

Pages 20-21 of the 2022 Forecast Report.

#### **Monthly Fuel Clause Adjustments (Minnesota Rule 7825.2810)**

Page 21 and Part A, Attachment 1 of the 2022 Forecast Report.

#### **Annual Five-Year Fuel Cost Forecast (Minnesota Rule 7825.2830):**

Page 21 and Part A, Attachments 1-3 and Part E, Attachments 1-3 of the 2022 Forecast Report.

**Fossil Fuel Costs, Coal Burn Expenses, and Nuclear Fuel Expenses (Minnesota Rule 7825.2830):**

Part B, Attachments 2-6 and Part E, Attachments 4-6 of the 2022 Forecast Report.

**Peak Demand and Energy Requirements (Minnesota Rule 7825.2830):**

Part A, Attachment 4 and Part E, Attachment 7 of the 2022 Forecast Report.

**Estimated Load Management Impact (Minnesota Rule 7825.2830):**

Part E, Attachment 8 of the 2022 Forecast Report.

**Wind Curtailment Report Narrative (projected wind curtailment costs) (Docket No. AA-04-1279):**

Pages 13-14 and Part B, Attachment 10, and Part G, Workpaper 9 of the 2022 Forecast Report.

**Community Solar Gardens (Docket No. M-13-867):**

Pages 10-11 and Part B Attachment 12 and Part G, Workpapers 7-8 of the 2022 Forecast Report.

**FCA Rule Variance Dockets (Docket No. AA-15-611):**

Page 19 and Part C, Attachment 2 of the 2022 Forecast Report.

**MISO Day 2 and Day 3 Charges & Allocation (Docket Nos. AA-07-1130, M-08-528, and AA-19-293):**

Pages 13, 16 and 18, Part A, Attachments 1-3 and Part B, Attachment 9 and Part F, Workpaper 5 of the 2022 Forecast Report.

**Notice of Reports Availability (Minnesota Rule 7825.2840):**

Addendum to the 2022 Forecast Report.

**Renewable\*Connect Neutrality (Docket M-15-985):**

Page 14 and Part G, Workpaper 11 of the 2022 Forecast Report.

**Windsor (Docket No. M-01-1479):**

Xcel stated on page 14 that the Windsor program will close in early 2022 and subscribers will be moved to Renewable\*Connect MTM, so the Company will no longer show separate data for Windsor resources and subscribers in its fuel forecast beginning in 2022. Support for the Renewable\*Connect forecast is found in Part G, Workpaper 11.

**Plant Outage Summary (Docket AA-06-1208):**

Pages 8-10, Part B Attachments 5-7, Part G Workpaper 10 of the 2022 Forecast Report.

**Moraine II, PPA (Docket M-08-1487):**

Part B, Attachment 11, Page 2 of 3 and Part C, Attachment 2, Page 2 of 3 of 2022 Forecast Report.

**Monthly MISO Day 2 Charges and Allocations (Docket AA-07-1130):**

Pages 13 and 18-19 and Part B, Attachment 9 and Part F, Workpaper 5 of the 2022 Forecast Report.

**Prospective Asset and Non-Asset Based Margin Sharing (Docket No. GR-10-971):**

Page 12 of the 2022 Forecast Report.

**Saver's Switch Discount (Docket No. M-01-46):**

In Part B, Attachment 13, Page 6 of 8, Xcel stated its Saver's Switch program results in short-term interruptions of service designed to reduce system capacity requirements rather than permanent reductions in energy use, so it is not considered here.

**Self-Scheduling Reporting (New) (Docket Nos. AA-17-492, AA-18-373, and CI-19-704):**

Part D, Attachment 7 of 2022 Forecast Report

**Compliance and Reporting Requirements Summary:**

Based on our review, the Department recommends that the Commission accept Xcel's compliance filings and reporting requirements for its 2022 Forecast Report.

**III. SALES FORECAST FOR 2022**

As explained on pages 6-7 of Xcel's 2022 Forecast Report, the Company has used PLEXOS software since 2015 to model its power supply system and forecast costs for fuel and purchased energy. The objective of the PLEXOS simulation is to estimate how Xcel's resources may be dispatched and used to meet the hourly load requirements in 2022 at the lowest costs. The PLEXOS simulation estimates the hourly load requirement based on the most recent forecast of monthly energy and monthly peak demands at the source developed by the Company's Sales Energy & Demand Forecasting Group. Part B, Attachment 13 describes Xcel's forecasting process in detail. A summary of the Company's 2022 sales forecast is provided in Part G, Workpaper 1 of Xcel's 2022 Forecast Report. Key input assumptions used to develop the PLEXOS forecast is provided in Part F, Workpaper 1 of Xcel's 2022 Forecast Report.

The Department reviewed Xcel's 2022 sales forecast information provided in Parts B, F, and G of its 2022 Forecast Report. A summary of Xcel's net system sales and production levels for its 2022 forecast, 2021 forecast, 2018-2020 actuals, and 2018-2020 average is provided in Table 1 below:

**Department Table 1: Xcel's 2022 and 2021 Forecasted Sales and Production Levels Compared to 2018-2020 Actual Sales and Production Levels (MWh's)<sup>6</sup>**

	2022 Forecast	2021 Forecast	2020 Actuals	2019 Actuals	2018 Actuals	2018-2020 Average
Total Net System Sales of Electricity for FCA	<b>[TRADE SECRET DATA HAS BEEN EXCISED]</b>		38,456,375 <sup>7</sup>	39,826,993 <sup>8</sup>	41,588,127 <sup>9</sup>	39,957,165 <sup>10</sup>
Total Net System Production Level			40,109,000 <sup>11</sup>	40,909,000 <sup>12</sup>	44,647,000 <sup>13</sup>	41,888,000 <sup>14</sup>

The Department notes that Xcel's 2022 sales forecast is slightly below its 2021 sales forecast and significantly below its three-year average of actuals sales for 2018-2020. In addition, the Department notes that the Company's 2022 forecast production level is slightly higher than its 2021 forecast production level and similar to its three-year average of actual production levels for 2018-2020.

Based on our review, the Department concludes that Xcel's 2022 sales forecast appears reasonable. As a result, the Department recommends that the Commission accept Xcel's 2022 forecasted sales in this proceeding to set FCA rates for 2022, and notes that Xcel's FCA revenues and costs are subject to true-up in the 2023 True-up Report. The Department notes that our recommendations in this docket should not be used in Xcel's future rate cases or other rate proceedings, where a more thorough review of the sales forecast will occur.

<sup>6</sup> Excludes Windsource and Renewable\*Connect

<sup>7</sup> Per Xcel's Response to Department Information Request No. 1, Part a.

<sup>8</sup> Per Xcel's Response to Department Information Request No. 1, Part a.

<sup>9</sup> *Id.*

<sup>10</sup> Calculated by Department; sum for 2018-2020/3.

<sup>11</sup> Per Xcel's Response to Department Information Request No. 1, Part b.

<sup>12</sup> Per Xcel's Response to Department Information Request No. 1, Part b.

<sup>13</sup> *Id.*

<sup>14</sup> Calculated by Department; sum for 2018-2020/3.



#### IV. 2022 FORECASTED FCA COST SUMMARY

Xcel's forecasted 2022 FCA cost summary is provided in Part A, Attachment 1 of its 2022 Forecast Report. Xcel's forecasted 2022 FCA cost summary includes fuel for its Company-owned generation facilities, long-term purchased energy (purchased power agreements), short-term market purchases from the Midcontinent Independent System Operator (MISO), less sales revenues received from MISO for asset-based sales, less FCA costs attributable to community solar gardens – above market costs (CSG-AMC), and Renewable\*Connect programs.

Once forecasted 2022 FCA are determined on a total system level, Minnesota is assigned its jurisdictional share of these costs based on its pro-rata share of megawatt-hours. Minnesota-specific adjustments are then added for CSG-AMC and biomass buyouts to determine Minnesota's forecasted net 2022 FCA costs.

For the record, the Department notes that it is the Company's responsibility to properly identify and forecast all charges that it intends to recover through the true-up process. Absent this responsibility, the Department notes that electric utilities may have little incentive to include and forecast all costs that they intend to recover accurately, which could limit the benefits of the forecast and true-up processes. Further, poorly supported forecast and/or true-up filings will likely lead to delays in the regulatory process or recommendations by Consumer Advocates of disallowance of costs.

For comparison purposes, the Department asked Xcel, in Department Information Request No. 2, to provide its actual and average FCA costs for 2018-2020 on a similar basis to its forecasted 2022 FCA costs provided in Part A, Attachment 1 of its 2022 Forecast Report.

A summary of Xcel's FCA costs for its 2022 forecast, 2021 forecast, 2018-2020 actuals, and 2018-2020 average is provided in Table 2 below.

**Department Table 2: Xcel's Forecasted 2022 FCA Cost Summary (in 1,000's)**

		2022 Forecast <sup>15</sup>	2021 Forecast <sup>16</sup>	2020 Actuals <sup>17</sup>	2019 Actuals <sup>18</sup>	2018 Actuals <sup>19</sup>	2018-2020 Average <sup>20</sup>
1	Xcel's Generating Stations	<b>[TRADE SECRET DATA HAS BEEN EXCISED]</b>		\$450,934	\$559,443	\$604,105	\$538,161
2	Plus: LT Purchased Energy			\$518,892	\$404,476	\$452,715	\$458,694

<sup>15</sup> Per Xcel's Response to Department Information Request No. 2, Attachment A.

<sup>16</sup> Xcel's updated 2021 forecast information per Xcel's July 31, 2020 Reply Comments in Docket No. E002/AA-20-417, Attachment C.

<sup>17</sup> Per Xcel's Response to Department Information Request No. 2, Attachment A.

<sup>18</sup> Id.

<sup>19</sup> Id.

<sup>20</sup> Calculated by Department; 2018-2020/3. Does not agree with some figures shown in Xcel's Response to Department Information Request No. 2, Attachment A where Xcel incorrectly calculated a two-year average instead of a three-year average.

3	Plus: LT CSG <sup>21</sup>	<b>[TRADE SECRET DATA HAS BEEN EXCISED]</b>	\$151,466	\$105,806	\$71,758	\$109,677
4	Plus: ST Market Purch		\$49,742	\$79,983	\$96,154	\$75,293
5	Total System Costs		\$1,171,034	\$1,149,708	\$1,224,732	\$1,181,825
6	Less: Sales Revenues <sup>22</sup>		(\$200,170)	(\$207,653)	(\$182,122)	(\$196,648)
7	Less: CSG- AMC <sup>23</sup>		(\$130,594)	(\$84,449)	(\$54,440)	(\$89,828)
8	Less: Windsorce		(\$9,474)	(\$7,324)	(\$5,891)	(\$7,563)
9	Less: Renewable*C onnect Pilot		(\$6,139)	(\$5,967)	(\$4,836)	(\$5,647)
10	Less: Renewable*C onnect MTM		\$0	\$0	\$0	\$0
11	Less: Renewable*C onnect LT		\$0	\$0	\$0	\$0
12	<b>Net System FCA Costs</b>		\$824,657	\$844,314	\$977,444	\$882,108
13	Total System Sales MWh		39,033,390	40,336,846	41,896,034	40,422,090
14	Less: Windsorce MWh		(394,474)	(326,798)	(189,429)	(303,567)
15	Less: Renewable* Connect Pilot		(182,541)	(183,055)	(118,478)	(161,358)
16	Less: Renewable*C onnect MTM		0	0	0	0
17	Less: Renewable*C onnect LT		0	0	0	0
18	Net System Sales MWh		38,456,375	39,826,993	41,588,127	39,957,165
19	<b>Net System FCA Costs \$/MWh</b>		21.44	21.20	23.50	22.05

<sup>21</sup> Long-term purchased energy from CSGs.

<sup>22</sup> Revenues received from MISO attributable to the Company's asset-based sales.

<sup>23</sup> Community Solar Gardens – Above Market Costs.

20	MN Juris. Sales MWh's		28,141,221	29,166,659	30,449,373	29,252,417
21	Less: Windsor MWh's		(394,474)	(326,798)	(189,429)	(303,567)
22	Less: Renewable* Connect Pilot		(182,541)	(183,055)	(118,478)	(161,448)
23	Less: Renewable* Connect MTM		0	0	0	0
24	Less: Renewable* Connect LT		0	0	0	0
25	Net MN Sales MWh's		27,564,206	28,656,806	30,141,466	28,787,492
26	MN FCA Costs		591,397	\$607,511	\$708,413	\$635,774
27	Add: CSG- AMC <sup>24</sup>	<b>[TRADE SECRET DATA HAS BEEN EXCISED]</b>	\$130,420	\$84,449	\$54,440	\$89,770
28	Add: Laurentian Buyout		\$13,134	\$13,005	\$13,388	\$13,176
29	Add: Pine Bend Buyout		\$113	\$480	\$170	\$254
30	Add: Benson Buyout		\$10,452	\$10,959	\$7,612	\$9,674
31	Net MN FCA Costs		\$746,992	\$716,405	\$784,023	\$749,140
32	Net MN FCA Costs \$/MWh		26.03	25.00	26.01	25.68
33	MN FCA Premium Costs \$/MWh <sup>25</sup>		4.59	3.80	2.51	3.63

The Department notes that, while there are significant cost variances over the years between the various cost categories included in Xcel's FCA, the net system FCA costs in total and on a per MWh basis (line 12) have generally **[TRADE SECRET DATA HAS BEEN EXCISED]** over the past few years except for Xcel's forecasted 2022 amounts which is **[TRADE SECRET DATA HAS BEEN EXCISED]** than the

<sup>24</sup> *Id.*

<sup>25</sup> As discussed below, the premium is due to the higher costs of CSGs and biomass buyout costs, which are both assigned solely to the Minnesota jurisdiction.

forecasted 2021 amount and recent actuals. According to Xcel, this is attributable to growth in Solar\*Rewards, Manitoba Hydro, and increased MISO costs.<sup>26</sup>

In contrast, the Department notes that Xcel's Minnesota FCA costs have generally been trending up over the years (line 32). This divergence between the trends in FCA rates that Xcel charges to its Minnesota customers compared to customers in North Dakota and South Dakota is due to the fact that only Minnesota ratepayers pay for costs of:

- community solar gardens in Minnesota that are above market costs (CSG-AMC) (line 27) and
- biomass buyout costs (lines 28-30).

That is, the higher costs due to these two categories are both solely assigned to the Minnesota jurisdiction.

Of these two categories, the cost of CSG-AMC is the [TRADE SECRET DATA HAS BEEN EXCISED] (both actual costs and Xcel's forecasted costs). Due to cost [TRADE SECRET DATA HAS BEEN EXCISED] and the forecasted [TRADE SECRET DATA HAS BEEN EXCISED] in 2022 sales (line 25), Xcel's forecasted Minnesota 2022 net FCA costs on a MWh basis (line 32) is [TRADE SECRET DATA HAS BEEN EXCISED] than the 2021 forecasted amount and prior years' actual amounts.

The Department notes that simply analyzing cost variances by category in dollars does not account for the changing nature of Xcel's generation fleet, which continues to rely more on renewables and less on fossil fuels. As a result, the Department asked Xcel to provide the MWh's associated with each FCA cost category and the resulting cost per MWh along with an explanation for variances greater than 5 percent in its Response to Department Information Request No. 2. In the Department's view, this information should take into account the changing nature of Xcel's generating fleet and provide a more reasonable way to compare FCA costs over the years on an apples-to-apples basis.

The Department's analysis of Xcel's FCA costs by category in dollars and dollars per MWh is provided in the following sections.

## **V. FORECASTED FUEL COSTS FOR COMPANY-OWNED GENERATION**

A summary of Xcel's forecasted 2022 and 2021 FCA costs and actual 2018-2020 FCA costs for Company-owned generation by fuel type in dollars and dollars per MWh is provided in Table 3 below.

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<sup>26</sup> Petition at 15.

**Department Table 3: Forecasted and Actual Fuel Costs for Company-Owned Generation**  
(\$ in 1,000's)<sup>27</sup>

	Company Owned Generation By Fuel Type	2022 Forecast	2021 Forecast <sup>28</sup>	2020 Actuals	2019 Actuals	2018 Actuals	2018-2020 Average
		<b>[TRADE SECRET DATA HAS BEEN EXCISED]</b>					
1	Coal \$			\$182,474	\$236,398	\$298,153	\$239,008
2	Coal MWh			8,527,600	10,770,300	13,017,400	10,771,800
3	<b>Coal \$/MWh</b>			\$21.40	\$21.95	\$22.90	\$22.19
4	Wood/RDF \$			\$9,013	\$10,669	\$11,518	\$10,400
5	Wood/RDF MWh			553,500	488,800	442,300	494,900
6	<b>Wood/RDF \$/MWh</b>			\$16.28	\$21.83	\$26.04	\$21.01
7	Natural Gas CC \$			\$120,536	\$178,597	\$155,822	\$151,652
8	Natural Gas CC MWh			6,121,300	8,108,200	5,770,700	6,666,700
9	<b>Natural Gas CC \$/MWh</b>			\$19.69	\$22.03	\$27.00	\$22.75
10	Natural Gas/Oil CT \$			\$18,924	\$18,084	\$19,808	\$18,939
11	Natural Gas/Oil CT MWh			715,400	486,600	435,600	545,800
12	<b>Natural Gas/Oil CT \$/MWh</b>			\$26.45	\$37.17	\$45.48	\$34.70
13	Nuclear \$			\$115,685	\$115,685	\$118,805	\$118,159
14	Nuclear MWh			14,677,300	14,104,500	14,601,300	14,461,100
15	<b>Nuclear \$/MWh</b>			\$8.17	\$8.20	\$8.14	\$8.17
16	Total Company Owned Generation \$ <sup>29</sup>			\$450,934	\$559,433	\$604,105	\$538,158

<sup>27</sup> Per Xcel's Response to Department Information Request No. 2, Attachment A.

<sup>28</sup> Xcel's updated 2021 forecast information per Xcel's July 31, 2020 Reply Comments in Docket No. E002/AA-20-417, Attachment C.

<sup>29</sup> Sum of lines 1, 4, 7, 10, and 13.

The Department notes the significant **[TRADE SECRET DATA HAS BEEN EXCISED]** in forecasted 2022 coal costs and related megawatt-hours (MWh) compared to prior years (line 1). In the Department's view, this change is not unexpected. As explained on page 8 of Xcel's 2022 Forecast Report, in the past the Company's coal plant were offered into the MISO market as "must-run" generation plants. However, the Company stated that it recently made operational changes and now offers these units on an "economic basis" into the MISO market. As a result, Xcel stated that its coal units, King, Sherco 2, and Sherco 3, are now set as economic commit in its PLEXOS model to reflect this operational change.<sup>30</sup>

The Department also notes the significant **[TRADE SECRET DATA HAS BEEN EXCISED]** in forecasted 2022 coal costs on a per megawatt-hour basis compared to 2020 actuals (line 3). According to Xcel, **[TRADE SECRET DATA HAS BEEN EXCISED]** in 2022.<sup>31</sup>

The Department notes the significant **[TRADE SECRET DATA HAS BEEN EXCISED]** in Xcel's forecasted 2022 Wood/RDF costs per MWh compared to 2020 actuals (line 6). According to Xcel, this **[TRADE SECRET DATA HAS BEEN EXCISED]** in 2022.<sup>32</sup>

The Department notes the significant **[TRADE SECRET DATA HAS BEEN EXCISED]** in forecasted 2022 natural gas costs per MWh for combined-cycle generating units compared to 2020 actuals (line 9). Likewise, the Department notes the significant **[TRADE SECRET DATA HAS BEEN EXCISED]** in forecasted 2022 natural gas and oil costs per MWh for combustion-turbine (CT) generating units compared to 2020 actuals (line 12). According to Xcel, these increases are attributable to **[TRADE SECRET DATA HAS BEEN EXCISED]**.<sup>33</sup>

Overall, the Department notes that total forecasted 2022 fuel costs for Company-owned generation has significantly **[TRADE SECRET DATA HAS BEEN EXCISED]** compared to 2020 actuals and 2018-2020 average (line 16). The Department notes that this change is expected due to the increasing amount of renewables on Xcel's system.

Based on our review and the explanations provided by Xcel, the Department concludes that Xcel's forecasted 2022 fuel costs for Company-owned generating units appears reasonable at this time. As a result, the Department recommends that Xcel's forecasted 2022 fuel costs for company-owned generation be accepted for the purpose of setting initial 2022 FCA rates in this proceeding, noting that Xcel's FCA revenues and costs are subject to true-up in the 2022 True-up Report.

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<sup>30</sup> On January 1, 2021, the Commission issued its Order in Docket No. E002/M-19-809 approving Xcel's request to be allowed not to offer its coal generation facilities into the MISO market during certain seasons. While the Company's FCA costs might increase slightly due to these facilities not being available, the expectation is that such cost increases would be minimal.

<sup>31</sup> Per Xcel's Response to Department Information Request No. 2, Attachment A.

<sup>32</sup> *Id.*

<sup>33</sup> *Id.*

## VI. PURCHASED ENERGY – LONG TERM PPAs

Table 4 below provides a breakout of Xcel’s long-term purchased energy by type using 2018 to 2020 actuals, 2018 to 2020 three-year average, and Xcel’s 2022 and 2021 forecasts. Xcel’s long-term purchased energy types include power purchases from gas, solar, wind, other, and CSG facilities. Xcel provided a more detailed breakout out of its long-term purchased energy by individual purchased price agreements (PPAs) in Part B, Attachment 11 of its 2022 Forecast Report.

**Department Table 4: Forecasted and Actual Long-Term Purchased Energy by Fuel Type**  
(\$ in 1,000’s)<sup>34</sup>

	Long-Term Purchased Energy By Fuel Type	2022 Forecast	2021 Forecast	2020 Actuals	2019 Actuals	2018 Actuals	2018-2020 Average
		<b>[TRADE SECRET DATA HAS BEEN EXCISED]</b>					
1	Gas \$			\$79,565	\$65,861	\$32,000	\$59,142
2	Gas MWh			3,716,400	2,589,300	858,900	2,388,200
3	<b>Gas \$/MWh</b>			\$21.41	\$25.44	\$37.26	\$24.76
4	Solar \$			\$41,490	\$34,472	\$37,870	\$37,944
5	Solar MWh			589,100	475,100	497,100	520,400
6	<b>Solar \$/MWh</b>			\$70.43	\$72.56	\$76.18	\$72.91
7	Wind \$			\$201,803	\$175,668	\$198,089	\$191,853
8	Wind MWh			5,538,800	4,737,300	5,070,500	\$5,115,500
9	<b>Wind \$/MWh</b>			\$36.43	\$37.08	\$39.07	\$37.50
10	Other \$			\$136,985	\$128,485	\$184,757	\$150,075
11	Other MWh			1,780,300	1,838,100	2,237,500	1,951,900
12	<b>Other \$/MWh</b>			\$76.95	\$69.90	\$82.57	\$76.89
13	CSG \$			\$151,466	\$105,806	\$71,758	\$109,676
14	CSG MWh			1,199,600	834,500	595,600	876,500
15	<b>CSG \$/MWh</b>			\$126.27	\$126.79	\$120.49	\$125.12
16	Total LT Purchased Energy <sup>35</sup>			\$611,309	\$510,291	\$524,474	\$548,691

<sup>34</sup> Per Xcel’s Response to Department Information Request No. 2, Attachment A. Xcel’s updated 2021 forecast information per Xcel’s July 31, 2020 Reply Comments in Docket No. E002/AA-20-417, Attachment C.

<sup>35</sup> Sum of lines 1, 4, 7, 10, and 13. Also ties to the sum of lines 2 and 3 from Department Table 2.

The Department notes that Xcel forecasts a **[TRADE SECRET DATA HAS BEEN EXCISED]** in 2022 long-term gas PPA costs per MWh compared to 2020 actuals (line 3). According to Xcel, this proposed **[TRADE SECRET DATA HAS BEEN EXCISED]**.<sup>36</sup>

The Department notes that Xcel's forecast of 2022 long-term solar PPA costs per MWh is approximately **[TRADE SECRET DATA HAS BEEN EXCISED]** than its 2020 actual costs (line 6). Xcel stated that this proposed **[TRADE SECRET DATA HAS BEEN EXCISED]**.<sup>37</sup>

The Department notes that forecasted 2022 long-term wind PPA costs per MWh have also **[TRADE SECRET DATA HAS BEEN EXCISED]** significantly over prior years' actuals (line 9). Xcel stated that this **[TRADE SECRET DATA HAS BEEN EXCISED]**.<sup>38</sup>

The Department notes that Xcel's forecasts of 2022 long-term other PPA costs per MWh is approximately **[TRADE SECRET DATA HAS BEEN EXCISED]** than 2020 actuals (line 12). Xcel stated that this **[TRADE SECRET DATA HAS BEEN EXCISED]**.<sup>39</sup>

Finally, the Department notes that Xcel's most expensive long-term PPA costs are associated with CSGs (line 15). While the percentage **[TRADE SECRET DATA HAS BEEN EXCISED]** in 2022 CSG price per MWh compared to 2020 actuals is relatively small, the Department expects CSG prices to continue to **[TRADE SECRET DATA HAS BEEN EXCISED]** as more CSGs are added to Xcel's system at the equivalent retail rate or value of solar rate.

Based on our review and explanations provided by Xcel, the Department concludes that the Company's forecasted 2022 long-term purchased energy costs appear reasonable at this time. As a result, the Department recommends that Xcel's forecasted 2022 purchased energy costs be accepted for the purpose of setting initial rates in this proceeding, subject to true-up in the 2023 True-up Report.

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<sup>36</sup> Per Xcel's Response to Department Information Request No. 2, Attachment A.

<sup>37</sup> *Id.*

<sup>38</sup> *Id.*

<sup>39</sup> *Id.*



## VII. MISO ENERGY MARKET (MISO DAY 2) AND ANCILLARY SERVICES MARKET (ASM Or MISO DAY 3)

The Department reviewed Xcel's MISO Day 2 and MISO Day 3 costs and revenues as shown in Part B, Attachment 9 and Part F, Workpaper 5 of its 2022 Forecast Report. As shown therein, Xcel used a historical five-year average to forecast these 2022 MISO charges (costs and revenues). A summary of Xcel's forecasted 2022 and 2021 MISO Day 2 and Day 3 charges is provided in Department Table 5 below:

**Department Table 5: Forecasted MISO Day 2 and Day 3 Charges (in 1,000's)**

Category	2022 Forecast (5-Year Average) <sup>40</sup>	2021 Forecast (5-Year Average) <sup>41</sup>
Congestion	<b>[TRADE SECRET DATA HAS BEEN EXCISED]</b>	
Financial Transmission Rights (FTR)		
Incremental Transmission Losses		
RSG/RNU <sup>42</sup>		
ASM <sup>43</sup> (Day 3)		
Total MISO Charges		

The Department notes the significant **[TRADE SECRET DATA HAS BEEN EXCISED]** in forecasted 2022 MISO congestion costs compared to forecasted 2021 MISO congestion costs. Xcel stated the following in Part G, Workpaper 5 regarding this change:

**[TRADE SECRET DATA HAS BEEN EXCISED]**

Based on the above, the Department concludes that Xcel has reasonably explained its forecasted changes in 2022 MISO congestion charges.

During our review of the individual MISO Day 2 and Day 3 charge types included in Part F, Workpaper 5 and summarized in Part B, Attachment 9 (Department Table 5), the Department noted that Xcel excluded certain MISO charge types from its 2022 forecast that were included in previous AAA filings, such as Day-Ahead Asset Energy, which is assumed to be captured in its PLEXOS model. In addition, the Department noted that Xcel included other non-MISO items in its 2022 forecast such as incremental transmission line losses. As the Department explained in our July 1, 2019 Comments regarding Xcel's 2020 Forecast Report, Xcel's MISO Day 2 and Day 3 charge types generally fall into three categories:

- 1) charge types reflected in Part B, Attachment 9 (Department Table 5);
- 2) charge types not reflected in Part B, Attachment 9 (i.e. Day-Ahead Asset Energy) but assumed to be captured in the PLEXOS model; and

<sup>40</sup> Per Xcel's 2022 Forecast Report filing in Docket No. E002/AA-21-195, Part B, Attachment 9.

<sup>41</sup> Xcel's updated 2020 forecast information per Xcel's July 31, 2020 Reply Comments in Docket No. E002/AA-20-417, Attachment I.

<sup>42</sup> Revenue Sufficiency Guaranty and Revenue Neutrality Uplift charges.

<sup>43</sup> MISO's Ancillary Services Market (ASM) commonly referred to as Day 3.

- 3) administrative charge types that are not reflected in Table 5 or the PLEXOS model because they are recovered in base rates

Based on the above, the Department concludes that Xcel's forecasted 2022 MISO Day 2 and Day 3 charges shown in Table 5 do not reflect Xcel's total amount of forecasted 2022 MISO Day 2 and Day 3 charges reflected in its forecasted 2022 FCA. The Department asked Xcel, in Department Information Request No. 3, to explain in detail where its total MISO Day 2 and Day 3 charges were included in its forecasted 2022 FCA cost summary. In addition, the Department asked Xcel to provide its total forecasted net MISO Day 2 and Day 3 charges for 2022 and actuals for 2018-2020. Xcel replied:

See Part B, Attachment 9 and Part F, Workpaper 5 provided with the April 30, 2021 initial filing.

The net of MISO Day 2 and Day 3 costs and revenues in the forecast is **[TRADE SECRET DATA HAS BEEN EXCISED]** which is the sum of lines 23, 24, and 29 from Part A, Attachment 1, page 1 of 3 (as shown in Part B, Attachment 9 provided with filing).

Xcel's actual net MISO Day 2 and MISO Day 3 costs and revenues for calendar years 2018, 2019, and 2020:

	Day 2	Day 3/ASM	Total
2018	\$(96,601,239.15)	\$30,912,909.52	\$(65,688,329.63)
2019	\$(126,376,906.38)	\$8,961,055.19	\$(117,415,851.19)
2020	\$(104,623,614.70)	\$18,474,150.97	\$(86,149,463.73)

In prior years' AAA filings, Xcel provided schedules showing the allocation of MISO Day 2 and Day 3 charges between retail and asset-based wholesale categories for purposes of determining asset-based margins.<sup>44</sup> However, as explained in the next section, Xcel did not include an itemization of asset-based margins on Part A, Attachment 1, page 1 because 100% of asset-based margins are intended to be returned to ratepayers as required by a settlement agreement for NSP-Minnesota. Therefore no itemization is necessary as 100% of asset-based margins are returned through the calculations on Part A, Attachment 1, page 1 of the Petition by inclusion of 100% of the asset-based sales revenues at line 29 and 100% of the asset based sales cost included in line 27, resulting in 100 percent of Xcel's asset-based margins given back to ratepayers in the FCA. As a result, and similar to last year's 2021 Forecast Report, the Department understands that Xcel did not allocate its forecasted 2022 MISO Day 2 and Day 3 charges between retail and asset-based wholesale categories. Instead, all MISO Day 2 and Day 3 costs and revenues, except those recovered in base rates, are included in Xcel's forecasted 2022 FCA rates.

<sup>44</sup> An example of these allocations can be seen in see Part J, Section 5, Schedule 7 of Xcel's initial filing in Docket No. E999/AA-18-373.

Based on our review and explanations provided by Xcel, the Department concludes that the Company's forecasted 2022 MISO Day 2 and Day 3 charges appear reasonable at this time, subject to true-up. As a result, the Department recommends that Xcel's forecasted 2022 MISO Day 2 and Day 3 charges be accepted for the purpose of setting initial rates in this proceeding.

### VIII. ASSET-BASED MARGINS

During our review, the Department was unable to locate or identify Xcel's forecasted asset-based margins. The Department asked Xcel, in Department Information Request No. 4, to explain in detail where its asset-based margins are reflected in its forecasted 2022 FCA cost summary in Part A, Attachment 1 of its filing and summarized in the Department's Table 2 above. In addition, the Department asked Xcel if the Company was proposing to keep a portion of its asset-based margins and to provide its forecasted asset-based margins for 2022 and actuals for 2018-2020. Xcel replied:

Asset-based margins for 2022 are reflected in the Net System Costs shown at line 35 of Part A, Attachment 1, page 1 of 3. Asset-based margins are the difference between asset-based Sales Revenues shown at line 29 less the underlying generation fuel costs incurred to make the asset-based sales which are part of the total fuel costs shown at line 27.

Xcel Energy's estimate of asset-based margins included at line 35 is **[TRADE SECRET DATA HAS BEEN EXCISED]** for 2022 as noted on page 12 of our petition narrative.

Xcel Energy plans to return 100% of asset-based margins to ratepayers as required by the April 24, 2006 settlement agreement in the Company's 2006 test year electric rate case (Docket No. E002/GR-05-1428) and approved in the Commission's July 6, 2006 Order in that docket (Order Point No. 2). The calculations on Part A, Attachment 1, page 1 of 3 return 100% of asset-based margins to customers through inclusion of 100% of the asset-based sales revenues at line 29 and 100% of the asset-based sales cost at line 27.

#### Asset-Based Margins (millions)

2018	\$46.4	Actual
2019	\$40.0	Actual
2020	\$51.5	Actual

Based on the above, the Department concludes that Xcel's forecasted 2022 sales revenue associated with asset-based margins is reflected in line 6 of the Department's Table 2 above while the costs or fuel associated with these asset-based margins is included as part of line 1 in the Department's Table 2.

The Department notes that Xcel's forecasted 2022 asset-based margins of **[TRADE SECRET DATA HAS BEEN EXCISED]** are **[TRADE SECRET DATA HAS BEEN EXCISED]** than the 2018-2020 average of \$45.9

million and **[TRADE SECRET DATA HAS BEEN EXCISED]** than Xcel's actual 2020 asset-based margins of **[TRADE SECRET DATA HAS BEEN EXCISED]**. The Department recommends that Xcel fully explain in reply comments why its forecasted 2022 asset-based margins are **[TRADE SECRET DATA HAS BEEN EXCISED]** than Xcel's actual 2020 asset-based margins.

The Department will make its final recommendation regarding Xcel's forecasted 2022 asset-based margins charges after it has reviewed Xcel's reply comments.

## IX. OUTAGE COSTS

Xcel's forecasted 2022 unplanned outage rates and costs are provided in Part B, Attachments 6-7 and and Part G, Workpaper 10. As shown therein, Xcel used a 5-year average to forecast its unplanned (forced) outage rates for base load plants in 2022. Xcel used MISO's calculation of Equivalent Forced Outage Rate Demand (eFORD) to forecast its unplanned outage rates for its peaking plants in 2022. A summary of Xcel's forecasted 2022 planned and unplanned outages in MWh's and their related power replacement costs are provided in Part B, Attachment 7.

The Department asked Xcel to provide its actual 2018-2020 planned and unplanned MWh's and related replacement power costs in Department Information Request No. 7. A summary of Xcel's planned and unplanned MWh's and related replacement power costs for 2022 forecast, 20210 forecast, and 2018 to 2020 actuals is provided below in Department Table 6.

**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)
1	2022 Forecast <sup>45</sup>	<b>[TRADE SECRET DATA HAS BEEN EXCISED]</b>					
2	2021 Forecast <sup>46</sup>						
3	2020 Actuals <sup>47</sup>	1,367,612	\$571,240	1,212,160	\$25,527,416	2,579,772	\$26,098,656
4	2019 Actuals <sup>48</sup>	2,444,517	\$17,753,190	1,063,497	\$4,936,021	3,508,014	\$22,689,211
5	2018 Actuals <sup>49</sup>	2,862,286	\$15,964,482	1,547,119	\$8,160,970	4,409,405	\$24,125,452

The Department notes that Xcel's forecasted total 2022 outage costs (Line 1, column (f)) are **[TRADE SECRET DATA HAS BEEN EXCISED]** than in any prior year, even though its estimated 2022 total outage

<sup>45</sup> Petition, Part B, Attachment 7.

<sup>46</sup> Updated 2021 forecast information per Xcel's July 31, 2020 Reply Comments in Docket No. E002/AA-20-417, Attachment B.

<sup>47</sup> Per Xcel's Response to Department Information Request No. 7, Attachment A.

<sup>48</sup> *Id.*

<sup>49</sup> *Id.*

MWh's (Line 1, column (e)) are **[TRADE SECRET DATA HAS BEEN EXCISED]** than any prior year. As a result, the Department requests that Xcel explain the reason for this divergence in reply comment.

The Department will make its final recommendation regarding Xcel's forecasted 2022 outages after it has reviewed Xcel's reply comments.

#### **X. WIND CURTAILMENT COST REPORT AND SUMMARY**

Xcel's detailed calculations of its forecasted 2022 wind curtailment costs are shown in Part G, Workpaper 9 of its 2022 Forecast Report. As shown therein, Xcel's forecasted 2022 wind curtailment costs total **[TRADE SECRET DATA HAS BEEN EXCISED]**. In addition, Xcel stated the following on page 13 of its Petition regarding wind curtailments:

Wind curtailment costs are estimated based on observed curtailment for prior years where large additions of wind generation preceded transmission expansion or transmission outages were higher than normal due to transmission expansion activity. Specifically, we based the 2022 wind curtailment estimate on the average curtailment percentage for years 2003 – 2020, adjusted to remove the highest curtailment year (greater than 10 percent) and the lowest curtailment years (less than 3 percent). We projected 2022 MWh production for each PPA wind farm that will be eligible for curtailment payments in 2022 using the average historical MWh for the years 2015-2020. For projects that are not yet in-service or only recently placed in-service, we used capacity factors based on the wind patterns discussed in Part B, Attachment 10. Total projected curtailment costs were determined by multiplying the curtailment percentage by the projects' MWh production for each project and by the PPA cost per MWh.

The Department reviewed Xcel's calculations of its forecasted 2022 wind curtailment costs shown in Part G, Workpaper 9. The Department notes that Xcel's forecasted 2022 wind curtailment costs are significantly **[TRADE SECRET DATA HAS BEEN EXCISED]** than Xcel's forecasted 2021 wind curtailment costs of **[TRADE SECRET DATA HAS BEEN EXCISED]**. The Department recommends that Xcel explain in reply comments its significant **[TRADE SECRET DATA HAS BEEN EXCISED]** in forecasted 2022 wind curtailment costs over forecasted 2021 wind curtailment costs.

The Department will make its final recommendation regarding Xcel's forecasted 2022 wind curtailment costs after it has reviewed Xcel's reply comments.

## XI. OTHER FCA COSTS

### A. COMMUNITY SOLAR GARDENS – ABOVE MARKET COSTS

In its September 17, 2014 Order in Docket No. E002/M-13-867, the Commission approved Xcel's proposal to recover CSG program costs, including customer bill credits, additional Renewable Energy Credits (RECs), and unsubscribed energy, through the FCA mechanism.

As noted above, Xcel's forecasted 2022 Minnesota FCA costs include PPA costs related to CSG-AMC's that are above market costs. As shown above in Department Table 2, Line 27, the Minnesota jurisdiction is assigned 100 percent of these costs, which have **[TRADE SECRET DATA HAS BEEN EXCISED]** significantly in recent years.

Beginning on page 10 of its 2022 Forecast Report, Xcel provided a detailed discussion on how these CSG costs are modeled in PLEXOS and reflected in its forecasted 2021 FCA. Xcel stated in part that:

Each solar PPA is modeled in the PLEXOS simulation with hourly profiles for each project. These profiles are based on historical results from projects with operational data. A white paper describing the solar profile forecast process in detail is provided with this filing as Part B, Attachment 10. The price for each solar PPA is based on the terms of each contract.

The Solar\*Rewards Community program is modeled in the PLEXOS simulation and includes expectations of future growth based on current applications for gardens seeking to participate in the program. To forecast 2022 capacity for community solar projects, we identify current projects to anticipate in-service dates and estimate project completion (in capacity) by month and year. We also forecast additional applications based on a historical average. This helps account for our future pipeline of projects. Capacity assumptions are then modeled in PLEXOS to determine MWh and average dollars per kWh. The program is modeled as one entity within PLEXOS rather than individually by garden in consideration of simulation run times. The assumed price for the program is a weighted rate based on an escalation of the historical Applicable Retail Rate (ARR) and the rates of different vintages of Value of Solar (VOS). Projected prices for future projects are calculated based on VOS vintage and anticipated completion date. The market cost of energy from the solar gardens generation is determined based on the assumed hourly Locational Marginal Price (LMP) in the simulation. This cost is shared with all jurisdictions in the NSP system. The cost of the program above market is direct assigned to Minnesota customers. Supporting documentation for solar gardens assumptions are included with this filing as Part B, Attachment 12 and Part G, Workpapers 7 and 8. (footnotes omitted).

The Department reviewed Xcel's CSG calculations. Based on our review the Department concludes that Xcel's forecasted 2022 CSG – AMC appears to be reasonable and recommends that they be accepted for the purpose of setting initial rates in this proceeding.

#### *B. BIOMASS BUYOUT COSTS*

As noted above, Xcel's forecasted 2022 Minnesota FCA costs include biomass buyout costs related to the early termination of biomass PPA's in accordance with the Commission's Orders in Docket Nos. E002/M-17-530, E002/M-17-551, and E002/M-17-531.

Xcel's biomass buyout costs and calculations are discussed on pages 12-13 and in Part G, Workpapers 5-6 of its 2022 Forecast Report. As shown above in Department Table 2, Lines 28-30, the Minnesota jurisdiction is assigned 100 percent of these costs.

The Department reviewed Xcel's forecasted 2022 biomass buyout costs. The Department notes that the Pine Bend biomass buyout appears to have **[TRADE SECRET DATA HAS BEEN EXCISED]** in forecasted costs for 2022 and 2021. In addition, the Department notes that forecasted 2022 biomass buyout costs for the remaining two projects are similar to previous years' biomass buyout costs.

Based on our review, the Department concludes that Xcel's forecasted 2022 biomass buyout costs appear reasonable. As a result, the Department recommends that Xcel's forecasted 2022 biomass buyout costs be accepted for the purpose of setting initial FCA rates in this proceeding.

## **XII. SUMMARY OF RECOMMENDATIONS**

### **Compliances Summary:**

Based on our review, the Department recommends that the Commission accept Xcel's compliance filings and reporting requirements for its 2021 Forecast Report.

### **Sales Forecast for 2022:**

The Department recommends that the Commission accept Xcel's 2022 forecasted sales in this proceeding, subject to true-up in the 2023 True-up Report.

### **Forecasted Company Owned Generation By Fuel Type And Location:**

Based on our review and the explanations provided by Xcel, the Department concludes that Xcel's forecasted 2022 fuel costs for Company-owned generating units appears reasonable at this time. As a result, the Department recommends that Xcel's forecasted 2022 fuel costs for company-owned generation be accepted for the purpose of setting initial 2022 FCA rates in this proceeding, subject to true-up in the 2023 True-up Report.

### **Purchased Energy – Long-Term PPAs:**

Based on our review and explanations provided by Xcel, the Department concludes that the Company's forecasted 2022 long-term purchased energy costs appear reasonable at this time. As a result, the

Department recommends that Xcel's forecasted 2022 long-term purchased energy costs be accepted for the purpose of setting initial rates in this proceeding, subject to true-up in the 2023 True-up Report.

**MISO Energy Market (MISO Day 2) and Ancillary Services Market (ASM or MISO Day 3):**

Based on our review and explanations provided by Xcel, the Department concludes that the Company's forecasted 2022 MISO Day 2 and Day 3 charges appear reasonable at this time. As a result, the Department recommends that Xcel's forecasted 2022 MISO Day 2 and Day 3 charges be accepted for the purpose of setting initial rates in this proceeding, subject to true-up in the 2023 True-up Report.

**Asset-Based Margins:**

The Department recommends that Xcel fully explain in reply comments why its forecasted 2022 asset-based margins are **[TRADE SECRET DATA HAS BEEN EXCISED]** than Xcel's actual 2020 asset-based margins. The Department will make its final recommendation regarding Xcel's forecasted 2022 asset-based margins charges after it has reviewed Xcel's reply comments.

**Outage Costs:**

The Department notes that Xcel's forecasted total 2022 outage costs (Line 1, column (f)) are **[TRADE SECRET DATA HAS BEEN EXCISED]** than in any prior year, even though its estimated 2022 total outage MWh's (Line 1, column (e)) are **[TRADE SECRET DATA HAS BEEN EXCISED]** than any prior year. The Department requests that Xcel explain the reason for this divergence in reply comments. The Department will make its final recommendation regarding Xcel's forecasted 2022 outages after it has reviewed Xcel's reply comments.

**Wind Curtailment Costs:**

The Department recommends that Xcel explain in reply comments its significant **[TRADE SECRET DATA HAS BEEN EXCISED]** in forecasted 2022 wind curtailment costs over forecasted 2021 wind curtailment costs. The Department will make its final recommendation regarding Xcel's forecasted 2022 wind curtailment costs after it has reviewed Xcel's reply comments.

**Other FCA Costs (Community Solar Gardens – Above Market Costs and Biomass Buyout Costs):**

Based on our review the Department concludes that Xcel's forecasted 2022 CSG – AMC appears to be reasonable and recommends that they be accepted for the purpose of setting initial rates in this proceeding.

Based on our review, the Department concludes that Xcel's forecasted 2022 biomass buyout costs appear reasonable. As a result, the Department recommends that Xcel's forecasted 2022 biomass buyout costs fuel costs be accepted for the purpose of setting initial FCA rates in this proceeding.



**PUBLIC**

**Department Attachment No. 1**

**Department Information Requests and  
Xcel Energy Responses**

**Docket No. E002/AA-21-295**

- ☐ Not Public Document – Not For Public Disclosure  
☒ Public Document – Not Public Data Has Been Excised  
☐ Public Document

Xcel Energy	Information Request No.	2
Docket No.:	E002/AA-21-295	
Response To:	Minnesota Department of Commerce	
Requestor:	Mark Johnson / Nancy Campbell	
Date Received:	May 28, 2021	

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Question:

Topic: Actuals for 2018 to 2020

Reference(s): Part A, Attachment 1, page 1 of 3 and Part A, Attachment 3, Page 1 of 1

- a. In the same format as Part A, Attachment 1, page 1 of 3, under the “2022 Total” column, please provide 2022 forecast, 2018 actuals, 2019 actuals, 2020 actuals, and three-year average for 2018 to 2020 for each line item on a live spreadsheet with all links and formulas intact. In addition, please add the additional rows/columns necessary to show the annual MWh’s associated with each line item (when applicable) and the resulting annual \$/MWh. For example, 2022 coal costs divided by 2022 coal MWh’s should equal 2022 coal \$/MWh as shown on Part A, Attachment 3, Page 1 of 1.
- b. For any differences of 5 percent or more when comparing 2022 forecast \$/MWh’s to 2020 actuals \$/MWh’s, please explain reason for deviation.
- c. For any differences of 5 percent or more when comparing 2022 forecast \$/MWh’s to the three-year average of 2018 to 2020 \$/MWh’s, please explain reason for deviation.

Response:

- a. - c. Please see Attachment A to this response.

Attachment A to this response contains information the Company considers to be trade secret data as defined by Minn. Stat. § 13.37(1)(b). The information derives independent economic value from not being generally known or readily ascertainable by others who could obtain a financial advantage from its use. Thus, Xcel Energy considers this non-public data.

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Preparer: Mark Ritkowski  
Title: Generation Modeling Analyst  
Department: Generation Modeling Services  
Telephone: 303-571-6320  
Date: June 7, 2021

- ☐ Not Public Document – Not For Public Disclosure  
☒ Public Document – Not Public Data Has Been Excised  
☐ Public Document

Xcel Energy Information Request No. 3  
Docket No.: E002/AA-21-295  
Response To: Minnesota Department of Commerce  
Requestor: Mark Johnson / Nancy Campbell  
Date Received: May 28, 2021

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Question:

Topic: MISO Costs and Revenues  
Reference(s): Part A, Attachment 1, page 1 of 3

- a. Please explain in detail where Xcel's forecasted 2022 total MISO Day 2 (energy market) and MISO Day 3 (ancillary services market) costs and revenues are reflected on the above referenced attachment.
- b. For the fiscal year ending August 31, 2018 (FYE18) in Docket No. E999/AA-18-373, Xcel's total MISO Day 2 costs and revenues totaled approximately (\$84.6 million) and Xcel's MISO Day 3 costs and revenues totaled approximately \$22.1 million for a total of (\$62.5 million). Please provide Xcel's comparable total forecasted 2022 net MISO Day 2 and net MISO Day 3 costs and revenues reflected in the above referenced attachment.
- c. Please provide Xcel's actual net MISO Day 2 and MISO Day 3 costs and revenues for calendar years 2018, 2019, and 2020.

Response:

- a. See Part B, Attachment 9 and Part F, Workpaper 5 provided with the April 30, 2021 initial filing.
- b. The net of MISO Day 2 and Day 3 costs and revenues in the forecast is **[PROTECTED DATA BEGINS PROTECTED DATA ENDS]** which is the sum of lines 23, 24 and 29 from Part A, Attachment 1, page 1 of 3 (as shown in Part B, Attachment 9 provided with the filing).

- c. Xcel's actual net MISO Day 2 and MISO Day 3 costs and revenues for calendar years 2018, 2019, and 2020:

	Day 2	Day 3/ASM	Total
2018	\$(96,601,239.15)	\$30,912,909.52	\$(65,688,329.63)
2019	\$(126,376,906.38)	\$8,961,055.19	\$(117,415,851.19)
2020	\$(104,623,614.70)	\$18,474,150.97	\$(86,149,463.73)

This response contains information the Company considers to be trade secret data as defined by Minn. Stat. § 13.37(1)(b). The information derives independent economic value from not being generally known or readily ascertainable by others who could obtain a financial advantage from its use. Thus, Xcel Energy considers this non-public data.

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Preparer: Mark Ritkowski  
Title: Generation Modeling Analyst  
Department: Generation Modeling Services  
Telephone: 303-571-6320  
Date: June 7, 2021

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☐ Public Document

Xcel Energy	Information Request No.	4
Docket No.:	E002/AA-21-295	
Response To:	Minnesota Department of Commerce	
Requestor:	Mark Johnson / Nancy Campbell	
Date Received:	May 28, 2021	

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Question:

Topic: Asset-Based Margins

Reference(s): Part A, Attachment 1, page 1 of 3

- Please explain in detail where Xcel's forecasted 2022 asset-based margins are reflected on the above referenced attachment.
- If possible, please provide Xcel's forecasted 2022 asset-based margins included in the above referenced attachment.
- Is Xcel proposing to keep a portion of its forecasted 2022 asset-based margins or is 100 percent being passed back to ratepayers?
- Please provide Xcel's actual asset-based margins for calendar years 2018, 2019, and 2020.

Response:

- Asset-based margins for 2022 are reflected in the Net System Costs shown at line 35 of Part A, Attachment 1, page 1 of 3. Asset-based margins are the difference between asset-based Sales Revenues shown at line 29 less the underlying generation fuel costs incurred to make the asset-based sales which are part of the total fuel costs shown at line 27.
- Xcel Energy's estimate of asset-based margins included at line 35 is **[PROTECTED DATA BEGINS PROTECTED DATA ENDS]** for 2022 as noted on page 12 of our petition narrative.
- Xcel Energy plans to return 100% of asset-based margins to ratepayers as required by the April 24, 2006 settlement agreement in the Company's 2006 test year electric rate case (Docket No. E002/GR-05-1428) and approved in the Commission's July 6, 2006 Order in that docket (Order Point No. 2). The

calculations on Part A, Attachment 1, page 1 of 3 return 100% of asset-based margins to customers through inclusion of 100% of the asset-based sales revenues at line 29 and 100% of the asset-based sales cost at line 27.

d.

**Asset-Based Margins (millions)**

2018	\$46.4	Actual
2019	\$40.0	Actual
2020	\$51.5	Actual

This response contains information the Company considers to be trade secret data as defined by Minn. Stat. § 13.37(1)(b). The information derives independent economic value from not being generally known or readily ascertainable by others who could obtain a financial advantage from its use. Thus, Xcel Energy considers this non-public data.

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Preparer:	Mark Ritkowski	Katherine Castro
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Telephone:	303-571-6320	303-571-7543
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Xcel Energy	Information Request No.	5
Docket No.:	E002/AA-21-295	
Response To:	Minnesota Department of Commerce	
Requestor:	Mark Johnson / Nancy Campbell	
Date Received:	May 28, 2021	

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Question:

Topic: Non-Asset-Based Margins

Reference(s): Part A, Attachment 1, page 1 of 3

- a. Please explain if Xcel is required to share any non asset-based margins with ratepayers. If so, please provide the percentage that Xcel is required to share and explain where Xcel's forecasted 2022 non asset-based margins are reflected on the above referenced attachment.
- b. If possible, please provide Xcel's forecasted 2022 non asset-based margins included in the above referenced attachment.
- c. Please provide Xcel's actual non asset-based margins for calendar years 2018, 2019, and 2020.

Response:

- a. Consistent with the Commission's May 14, 2012 Order in our test year 2011 general electric rate case (Docket No. E002/GR-10-971), the Non-Asset Based Margins are no longer credited through the fuel clause adjustment in the Minnesota jurisdiction. Therefore, no Non Asset-Based margins are included in Part A, Attachment 1, page 1 of 3.
- b. See the response to Part a. above.
- c. Non Asset-Based margins for the NSP system, after allocating to the jurisdictions, as required by the Joint Operating Agreement, are as follows:



<b>Year</b>	<b>NSP Non Asset- Based Margins</b>
2018	\$4,138,628
2019	\$2,037,097
2020	\$6,676,764

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Preparer: Katherine Castro  
 Title: Principal Financial Consultant  
 Department: NSP Commercial Accounting  
 Telephone: 303-571-7543  
 Date: June 7, 2021

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☒ Public Document – Not Public Data Has Been Excised  
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Xcel Energy Information Request No. 6  
Docket No.: E002/AA-21-295  
Response To: Minnesota Department of Commerce  
Requestor: Mark Johnson / Nancy Campbell  
Date Received: May 28, 2021

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Question:

Topic: Forced Outage Rates

Reference(s): Part B, Attachment 6

- a. Please explain the “ES Adder” column found on Part B, Attachment 6, Page 1 of 2. Please explain how the outage rates in this column were determined.
- b. Please explain how Xcel determined its peaking plant forced outage rates found on Part B, Attachment 6, Page 2 of 2.

Response:

- a. Please see Attachment A to this response for the basis for and calculation of the ES Adder.
- b. The peaking plant forced outage rates shown on Part B, Attachment 6, Page 2 of 2 are taken from MISO’s calculation of eFORd for these plants.

Attachment A to this response contains information the Company considers to be trade secret data as defined by Minn. Stat. § 13.37(1)(b). The information derives independent economic value from not being generally known or readily ascertainable by others who could obtain a financial advantage from its use. Thus, Xcel Energy considers this non-public data.

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Preparer: Mark Ritkowski  
Title: Generation Modeling Analyst  
Department: Generation Modeling Services  
Telephone: 303-571-6320  
Date: June 7, 2021

2022	Equiv Days	Equiv Hours	Planned Hours	Service Hours	ES Adder
[PROTECTED DATA BEGINS					
Sherco 1					
Sherco 2					
Sherco 3					
King					
PROTECTED DATA ENDS]					

[PROTECTED DATA BEGINS					
PROTECTED DATA ENDS]					

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Xcel Energy Information Request No. 7  
Docket No.: E002/AA-21-295  
Response To: Minnesota Department of Commerce  
Requestor: Mark Johnson / Nancy Campbell  
Date Received: May 28, 2021

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Question:

Topic: Change in Energy Costs (Incremental Outages Costs) Due to Outages  
Included in 2022 Forecast  
Reference(s): Part B, Attachment 7, Page 1 of 1

Xcel's total forecasted 2022 planned and unplanned outage MWh's and incremental planned and unplanned outage costs are shown in the above referenced attachment. Please provide Xcel's actual planned and unplanned MWh's and costs for calendar years 2018, 2019, and 2020 in the same format as shown in the "Total" row at the bottom of the above-referenced attachment.

Response:

Please see Attachment A to this response.

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Preparer: Mark Ritkowski  
Title: Generation Modeling Analyst  
Department: Generation Modeling Services  
Telephone: 303-571-6320  
Date: June 7, 2021

		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
Total 2018		2,862,286	80,231,885	64,267,404	15,964,482		28.03	22.45	5.58		1,547,119	45,124,263	36,963,293	8,160,970		29.17	23.89	5.27
Total 2019		2,444,517	58,715,497	40,962,308	17,753,190		24.02	16.76	7.26		1,063,497	31,186,730	26,250,409	4,936,321		29.32	24.68	4.64
Total 2020		1,367,612	22,540,400	21,969,160	571,240		16.48	16.06	0.42		1,212,160	25,527,416	14,179,347	11,348,069		21.06	11.70	9.36

		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
Total 2018		2,862,286	80,231,885	64,267,404	15,964,482		28.03	22.45	5.58		1,547,119	45,124,263	36,963,293	8,160,970		29.17	23.89	5.27
Total 2019		2,444,517	58,715,497	40,962,308	17,753,190		24.02	16.76	7.26		1,063,497	31,186,730	26,250,409	4,936,321		29.32	24.68	4.64
Total 2020		1,367,612	22,540,400	21,969,160	571,240		16.48	16.06	0.42		1,212,160	25,527,416	14,179,347	11,348,069		21.06	11.70	9.36

## **CERTIFICATE OF SERVICE**

I, Sharon Ferguson, hereby certify that I have this day, served copies of the following document on the attached list of persons by electronic filing, certified mail, e-mail, or by depositing a true and correct copy thereof properly enveloped with postage paid in the United States Mail at St. Paul, Minnesota.

**Minnesota Department of Commerce  
Public Comments**

**Docket No. E002/AA-21-295**

**Dated this 30<sup>th</sup> day of June 2021**

**/s/Sharon Ferguson**

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