



414 Nicollet Mall  
Minneapolis, Minnesota 55401

April 30, 2020

— Via Electronic Filing —

Steve Kahl, Interim Executive Secretary  
North Dakota Public Service Commission  
State Capitol, 600 East Boulevard  
Bismarck, ND 58505-0480

**Re: May 2020 Fuel Cost Rider Rates  
Case No. PU-20-012**

Dear Mr. Kahl:

Northern States Power Company, doing business as Xcel Energy and operating in North Dakota, hereby submits its electric Fuel Cost Rider (FCR) rates for May 2020.

The table below shows the FCR rates by customer class:

May 2020	FCR rate/kWh
Residential	\$0.02087
C & I Non-Demand	\$0.02160
C & I Demand	\$0.02132
C & I Demand Time of Day (On-Peak)	\$0.02679
C & I Demand Time of Day (Off-Peak)	\$0.01665
Outdoor Lighting	\$0.01537

See Attachment A for the supporting calculations of these rates.

## MID-CONTINENT INDEPENDENT SYSTEM OPERATOR (MISO) CHARGES

### Day 2 Market

Pursuant to the Commission's Orders in Case Nos. PU-05-147 and PU-07-776, Xcel Energy is authorized to recover MISO Day 2 costs in the FCR. The current FCR rates reflect MISO Day 2 charge types including three Auction Revenue Rights (ARR) and three Financial Transmission Rights (FTR) charge types.<sup>1</sup> Consistent with these Orders and the required "net" accounting of MISO Day 2 costs and revenues, we have included in the May FCR the net MISO Day 2 costs for March as recorded in Account 555. The MISO Day 2 cost recovery included in this month's FCR is \$4,647,756 which is the net of many items.<sup>2</sup> Pursuant to the above-mentioned Orders, the Company also provides more detailed information in Attachment C of this filing to support the calculation of the MISO Day 2 costs.

### Ancillary Services Market (ASM)

With the implementation of the MISO ASM on January 6, 2009, the net costs or revenues of 14 ASM charge types are included in the FCR, pursuant to Commission guidance in Case No. PU-09-016. Consistent with the MISO Order and the required "net" accounting of ASM costs and revenues, we reflect in the May FCR rates the net MISO ASM costs for March as recorded in Account 555. The MISO ASM cost recovery included in this month's FCR is \$814,613, which is the net of many items. The detailed records are contained in Attachment C.

## INCLUDED REFUNDS

### Asset Based Margins

Under the terms of the Revised Second Amended Settlement adopted by the Commission on February 26, 2014 (retroactive to January 1, 2014), the Company began passing through to North Dakota customers 100 percent of wholesale asset-based margins.<sup>3</sup> March margins of \$875,142 have been included as an offsetting credit in this month's FCR. Additional information is found in Attachments B and F.

### Non-Asset Based Margins

Beginning in February 2011, the prior year retail share of Non-Asset Based Margins is credited to North Dakota customers via the FCR evenly over the following 12-month period. The North Dakota retail share of the 2019 Non-Asset Based Margin credit amount applicable to the May FCR is \$277,301. See Attachments B and F.

### Sales of Renewable Energy Credits (RECs)

Pursuant to the Commission Order in Case No. PU-10-19, the Company was authorized to sell excess Renewable Energy Credits (RECs) allocable to our North Dakota jurisdiction and credit 90 percent of the North Dakota jurisdictional share of net proceeds generated by the

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<sup>1</sup> Previously embedded in other FTR charge types.

<sup>2</sup> This includes a credit of \$2,851,747 received from MISO in transmission settlement as part of the 2018 excess congestion end-of-year disbursement. This credit is returned to the customers.

<sup>3</sup> Case Nos. PU-12-813, PU-13-706, PU-13-707, PU-13-708, PU-13-742, PU-13-743, PU-13-194, PU-13-195

sale back to customers through the FCR. Under the Commission's February 26, 2014 Order Adopting Settlement, the share of the net proceeds to customers was increased to 100 percent. The REC sales credit for the current reporting period is \$43,092. See Attachments B and F.

### **PURCHASED POWER AGREEMENT (PPA) COST RECOVERY REVIEW**

Pursuant to the Commission's February 26, 2014 Order Adopting Settlement, the following procedural changes reflected in the Revised Second Amended Settlement were made to provide additional transparency regarding cost recovery of renewable energy projects or purchases:

- The Company will notify the Commission in its monthly FCR filings of any new renewable projects, qualifying in part or whole for FCR cost recovery, whose costs are included in the calculation of FCR rates;
- The Company will file an annual summary listing the new resources that have been included in the FCR during the previous calendar year;
- If, within 6 months of the filing of the annual summary, the Commission does not initiate a review of the new PPA(s) listed, the Company will be allowed to recover the related costs for the duration of the contract(s); and
- Renewable energy resources or purchases with FCR-qualifying costs that are 50 MW or larger in size (nameplate capacity) will not be included in the FCR unless and until the Commission has granted an Advance Determination of Prudence (ADP) for the resource.

It should be noted that MISO market energy purchases are not subject to the above requirements.

The following PPAs have been excluded from the FCR as a result of Commission review and disapproval:

1. School Sisters of Notre Dame (0.8 MW)<sup>4</sup>
2. Marshall Solar LLC (62.25 MW)<sup>5</sup>
3. North Star Solar PV (100 MW)<sup>6</sup>
4. Aurora Distributed Solar (100 MW)<sup>7</sup>

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<sup>4</sup> Case No. PU-16-458, ORDER REGARDING 2015 POWER PURCHASE AGREEMENT COSTS, October 5, 2016.

<sup>5</sup> The 62.25 MW Marshall Solar project is one of the three projects in the Company's proposed 187 MW solar energy portfolio that was not approved by the Commission (Case No. PU-14-810).

<sup>6</sup> The 100 MW North Star Solar project is one of the three projects in the Company's proposed 187 MW solar energy portfolio that was not approved by the Commission (Case No. PU-14-810).

<sup>7</sup> The Company's application for an advance determination of prudence for the proposed 100 MW Aurora Distributed Solar project was denied (Case No. PU-15-95).

## NEGOTIATED AGREEMENT PURCHASED POWER AGREEMENT EXCLUSIONS

Pursuant to the Commission’s March 9, 2016 Order Accepting the Negotiated Agreement (Case Nos. PU-12-813, *et. al.*), the costs and volumes of 15 Community-Based Energy Development (C-BED) and two solar PPAs (see table below) are to be excluded from the calculation of the Company’s monthly FCR rates. Beginning with September 2018, a new solar PPA, Dragonfly Solar is added to the exclusion list. See Attachment D for more details concerning the calculation of the replacement energy costs (i.e., the system average) used to effectuate the impact of disallowing these PPAs.

1. Jeffers Wind 20, LLC (50 MW)	10. North Wind Turbines (15 MW)
2. Big Blue (36 MW)	11. Valley View Transmission (10 MW)
3. Community Wind South (Zephyr) (30 MW)	12. Ulk Wind Farm (4.5 MW)
4. Ridgewind Power Partners LLC (25 MW)	13. Hilltop Power (2 MW)
5. Adams Wind Generations (20 MW)	14. Winona County Wind (1.5 MW)
6. Danielson Wind Farms (20 MW)	15. Woodstock Municipal Wind, LLC (0.8 MW)
7. Ewington Energy Systems LLC (20 MW)	16. Outland Solar (2 MW)
8. Grant County Wind, LLC (20 MW)	17. Best Power (St. Johns Solar) (0.4 MW)
9. North Community Turbines (15 MW)	18. Dragonfly Solar, LLC (0.8 MW)

## COMMUNITY SOLAR GARDENS COST TREATMENT

In our response to NDPSC Staff Data Request No. 1 submitted in Case No. PU-17-12 on August 23, 2017, the Company committed to including additional information in our FCR filings regarding the costs related to the Minnesota Community Solar Gardens program production and cost allocation to North Dakota. This information is located in Attachment H.

## BIOMASS PPA TERMINATION COST RECOVERY

Pursuant to Commission’s June 27, 2018 Order in Case Nos. PU-17-270 (ADP – Benson, Pine Bend and HERC PPAs), PU-17-271 and PU-17-322 (Deferred Accounting of Benson, Pine Bend and Laurentian PPAs termination cost recovery) the May FCR includes \$57,109 in termination cost recovery. The itemized cost recovery information is found in Attachment F.

## MONTHLY FCR RATE CALCULATION AND SUPPORTING DOCUMENTS

This filing includes the following supporting documents:

- Attachment A – Summary of Calculation of the Monthly 2020 FCR Rate
- Attachment B – Four Month Fuel Cost Rider Costs
- Attachment C – Detail of MISO Day 2 and ASM Settlement Charges

- Attachment D – Derivation of Replacement Costs for Disallowed PPAs
- Attachment E – Deviation of FCR True-Up Adjustment
- Attachment F – Summary of Credits and Special Charges Included in the FCR
- Attachment G – Historical Trend of FCR Charges (Residential)
- Attachment H – Community Solar Garden Costs Allocated To North Dakota FCA

If you have any questions regarding the information contained in this filing, please contact Dave Sederquist at 701-241-8632 or [dave.sederquist@xcelenergy.com](mailto:dave.sederquist@xcelenergy.com).

Sincerely,

/ s /

LISA PETERSON  
MANAGER, REGULATORY ANALYSIS

cc: David H. Sederquist

Enclosures

Summary of Fuel Cost Rider Rates - May 2020

**System Fuel and Purchased Energy Costs**

	<u>4 Month Total</u>
1 NSP System Fuel/Energy Costs (Retail)	\$247,608,542 Att B, p. 1, line 6
2 MISO Charges	\$26,907,139 Att B, p. 1, line 10
3 Disallowed Purchased Power Costs	<u>(\$16,324,179) Att B, p. 1, line 14</u>
4 Net NSP System Costs	<u>\$258,191,501</u>

**ND Fuel and Purchased Energy Costs**

	<u>4 Month Total</u>
5 NSP System MWh Sales (Retail)	13,348,454 Att B, p. 1, line 16
6 Average NSP System Cost per kWh	1.934¢ line 4 / line 5/10
7 ND MWh Sales (Retail)	<u>819,522 Att B, p. 1, line 18</u>
8 ND Fuel & Purchased Energy Costs	<u>\$15,849,555 line 6 x line 7</u>

**Credits and Other Adjustments Applicable to ND**

	<u>March 2020</u>
9 Wholesale Margins Credit	(\$1,152,443) Att B, p. 1, line 20,21
10 REC Sales Proceeds Credit	(\$43,092) Att B, p. 1, line 22
11 Biomass PPA Termination Costs	<u>\$57,109 Att B, p. 1, line 23</u>
12 Net Credits and Other	<u>(\$1,138,427)</u>

**Over/Under Recovered Costs**

	<u>Amount</u>
13 True-Up Amount for March 2020	\$2,444,650 Att E, p.1, line 19

**ND Net FCR Costs**

	<u>4 Month Total</u>
14 Net FCR Costs	\$17,155,779 line 8+line 12+line 13
15 Net FCR Cost per kWh	2.093¢ line 14 / line 7/10

**Fuel Cost Rider Rate By Class**

	Customer Class	ND Cost of Fuel/kWh	Cust. Class Ratio <sup>1</sup>	FCR Rate
16	Residential	2.093¢	0.99690	<b>2.087¢</b>
17	C & I Non-Demand	2.093¢	1.03180	<b>2.160¢</b>
18	C & I Demand Non-TOD	2.093¢	1.01840	<b>2.132¢</b>
19	C & I Demand TOD On-Peak	2.093¢	1.27980	<b>2.679¢</b>
20	C & I Demand TOD Off-Peak	2.093¢	0.79540	<b>1.665¢</b>
21	Outdoor Lighting	2.093¢	0.73410	<b>1.537¢</b>

<sup>1</sup> See Fuel Cost Rider Tariff.

4 Month Fuel Cost Rider Costs - May 2020

	(A)	(B)	(C)	(D)	(E)
<b>Fuel &amp; Purchased Energy Costs</b>	Dec-19	Jan-20	Feb-20	Mar-20	4 Month Total
1 Account 151 - Fossil Fuel	\$30,272,020	\$31,491,334	\$22,213,376	\$20,008,471	\$103,985,201
2 Account 518 - Nuclear Fuel	\$10,765,431	\$10,813,504	\$10,115,675	\$10,737,663	\$42,432,273
3 Account 555 - Purchased Power <sup>1</sup>	\$44,597,144	\$44,936,638	\$47,223,045	\$51,276,479	\$188,033,306
4 Sub-Total NSP Sys Energy Costs	\$85,634,595	\$87,241,476	\$79,552,096	\$82,022,613	\$334,450,780
5 Exclude Costs of InterSystem Sales	(\$24,721,487)	(\$25,733,207)	(\$16,516,425)	(\$19,871,119)	(\$86,842,238)
6 Total Sys Fuel & Purch Energy	\$60,913,107	\$61,508,269	\$63,035,671	\$62,151,494	\$247,608,542
<b>MISO Charges</b>					
7 Day 2 Market	\$6,379,070	\$5,323,019	\$6,092,529	\$4,747,961	\$22,542,580
8 Exclude Schedule 24	(\$108,486)	(\$77,746)	(\$87,585)	(\$100,205)	(\$374,022)
9 Ancillary Services Market	\$1,118,142	\$2,983,427	(\$177,600)	\$814,613	\$4,738,581
10 Total MISO Charges	\$7,388,726	\$8,228,700	\$5,827,343	\$5,462,369	\$26,907,139
<b>Disallowed PPA Costs<sup>2</sup></b>					
11 Exclude Costs of Disallowed PPAs	(\$4,568,779)	(\$4,366,073)	(\$6,664,620)	(\$7,272,555)	(\$22,872,027)
12 Exclude Related Curtailment Costs	(\$103,791)	(\$13,633)	(\$13,633)	(\$225,298)	(\$356,355)
13 Replacement Energy Costs	\$1,452,878	\$1,270,157	\$2,123,426	\$2,057,742	\$6,904,203
14 Net Disallowance	(\$3,219,691)	(\$3,109,549)	(\$4,554,828)	(\$5,440,112)	(\$16,324,179)
15 Net NSP System Costs	\$65,082,142	\$66,627,421	\$64,308,187	\$62,173,752	\$258,191,501
<b>ND Fuel and Purchased Energy Costs</b>					
	Dec-19	Jan-20	Feb-20	Mar-20	4 Month Total
16 NSP System Sales (Retail)	3,334,310	3,654,477	3,033,260	3,326,407	13,348,454
17 Avg. NSP System Cost per kWh	1.952¢	1.823¢	2.120¢	1.869¢	1.934¢
18 ND Sales (Retail)	199,643	230,507	186,134	203,238	819,522
19 ND Fuel & Purchased Energy Costs	\$3,897,031	\$4,202,143	\$3,946,041	\$3,798,518	\$15,849,555
<b>Other Adjustments and True-Up</b>					
20 Asset-Based Margins	(\$744,497)	(\$899,485)	(\$852,306)	(\$875,142)	(\$3,371,430)
21 Non-Asset-Based Margins	(\$49,807)	(\$370,661)	(\$36,257)	(\$277,301)	(\$734,026)
22 REC Sales Proceeds (100%)	(\$77,683)	(\$55,876)	(\$57,272)	(\$43,092)	(\$233,923)
23 Biomass PPA Termination Costs <sup>3</sup>	\$60,103	\$60,117	\$60,207	\$57,109	\$237,536
24 Net Credits and Other	(\$811,884)	(\$1,265,905)	(\$885,628)	(\$1,138,427)	(\$4,101,844)

<sup>1</sup> Excludes demand-related expenses, MN Windsource energy costs, and MN Solar Gardens energy costs.

<sup>2</sup> Excludes costs exceeding system average costs for 21 wind and solar PPAs pursuant to March 9, 2016 Order Approving Settlement (PU-12-813) & other ADP docket.

<sup>3</sup> Benson, Laurentian and Pine Bend PPAs.

MISO Day 2 Settlement Charges - May 2020

		<b>Retail</b>
	<u>FERC Account</u>	<u>Expense (Rev)</u>
<b>Energy and Losses</b>		
1 Day Ahead Asset Energy - Energy	555	\$2,510,989
2 Day Ahead Asset Energy - Losses	555	\$1,848,618
3 Day Ahead Financial Bilateral Transaction Loss	555	(\$1,190)
4 Day Ahead Non-Asset Energy - Energy	555	(\$2,373,873)
5 Day Ahead Non-Asset Energy - Losses	555	\$218,816
6 Day Ahead Losses Rebate on Carve-out Grandfathered Agreements	555	\$1,190
7 Day Ahead Losses Rebate on Option B Grandfathered Agreements	555	\$0
8 Real Time Asset Energy - Energy	555	\$1,276,659
9 Real Time Asset Energy - Losses	555	\$57,718
10 Real Time Distribution of Losses	555	(\$276,694)
11 Real Time Financial Bilateral Transaction - Losses	555	\$0
12 Real Time Losses Rebate on Carve-out Grandfathered Agreements	555	\$0
13 Real Time Net Inadvertent Distribution	555	\$205,433
14 Real Time Non-Asset Energy - Energy	555	\$3,669
15 Real Time Non-Asset Energy - Losses	555	(\$483)
16 <b>Total Energy and Losses</b>		<u><u>\$3,470,852</u></u>
<b>Congestion</b>		
17 Day Ahead Asset Energy - Congestion	555	\$3,596,708
18 Day Ahead Financial Bilateral Transaction - Congestion	555	(\$660)
19 Day Ahead Non-Asset Energy - Congestion	555	\$222,181
20 Day Ahead Congestion Rebate - Carve-out Grandfather Agreements	555	\$660
21 Day Ahead Congestion Rebate - Option B Grandfather Agreements	555	\$0
22 Real Time Asset Energy - Congestion	555	\$101,555
23 Real Time Financial Bilateral Transaction - Congestion	555	\$0
24 Real Time Congestion Rebate - Carve-out Grandfather Agreements	555	\$0
25 Real Time Non-Asset Energy - Congestion	555	(\$1,319)
26 <b>Total Congestion-Related</b>		<u><u>\$3,919,125</u></u>
<b>Financial Transmission Rights (FTR)</b>		
27 FTR Hourly Allocation	555	(\$3,929,675)
28 FTR Monthly Allocation	555	(\$54,490)
29 FTR Transaction	555	\$0
30 FTR Yearly Allocation	555	\$0
31 FTR Full Funding Guarantee	555	(\$60,408)
32 FTR Guarantee Uplift	555	\$62,381
33 FTR Monthly Transaction	555	\$0
34 <b>Total Financial Transmission Rights Charges</b>		<u><u>(\$3,982,192)</u></u>



MISO Day 2 Settlement Charges - May 2020

	<u>FERC Account</u>	<u>Retail Expense (Rev)</u>
<b>Uplift</b>		
35 Real-Time Revenue Neutrality Uplift	555	\$124,952
36 <b>Total Uplift</b>		<u>\$124,952</u>
<b>Revenue Sufficiency Guarantee (RSG)</b>		
37 Day Ahead RSG Distribution	555	\$46,930
38 Day Ahead RSG Make Whole Payment	555	(\$44,614)
39 Real time RSG First Pass Distribution	555	\$20,259
40 Real Time RSG Make Whole Payment	555	(\$1,522)
41 Real Time Price Volatility Make Whole Payment	555	(\$98,865)
42 <b>Total Revenue Sufficiency Guarantee</b>	555	<u>(\$77,812)</u>
<b>Market Administration<sup>1</sup></b>		
43 Day Ahead Market Administration	575.7	\$446,719
44 Real Time Market Administration	575.7	\$34,654
45 FTR Market Administration	575.7	\$44,638
46 <b>Total Market Administration</b>		<u>\$526,012</u>
<b>Virtual Energy</b>		
47 Day Ahead Virtual Energy	555	\$0
48 Real Time Virtual Energy	555	\$0
49 <b>Total Virtual Energy</b>	555	<u>\$0</u>
<b>Auction Revenue Rights (ARR)</b>		
50 ARR FTR Auction Transactions	555	\$1,307,930
51 ARR Monthly Revenue	555	(\$1,301,582)
52 ARR Stage 2 Distribution	555	(\$165,479)
53 ARR Monthly Infeasible Revenue	555	\$25,524
54 <b>Total Auction Revenue Rights</b>		<u>(\$133,606)</u>
<b>Other Miscellaneous</b>		
55 Real Time Miscellaneous	555	\$572,659
56 Real Time Uninstructed Deviation	555	\$0
57 <b>Total Other Miscellaneous</b>		<u>\$572,659</u>
58 <b>Grand Total MISO Day 2 Charges</b>		<u><u>\$4,647,756</u></u> *

\* Included \$227,765.74 recovery of new MISO Schedule 49 charge type.

<sup>1</sup> Excludes Schedule 24 costs, which are recovered in base rates.

MISO Ancillary Services Markets (ASM) Charges - May 2020

	<u>FERC Account</u>	<u>Retail Expense (Rev)</u>
<b>Procurement</b>		
1 Day Ahead Regulation	555	(\$255,634)
2 Day Ahead Spinning Reserve	555	(\$144,262)
3 Day Ahead Supplemental Reserve	555	(\$25,943)
4 Real Time Regulation	555	\$237,735
5 Real Time Spinning Reserve	555	\$135,178
6 Real Time Supplemental Reserve	555	\$17,029
7 <b>Total Procurement</b>		<u><u>(\$35,897)</u></u>
<b>Resource Energy</b>		
8 Real Time Excessive Energy	555	(\$13,807)
9 Real Time Excessive Energy - Congestion	555	\$0
10 Real Time Excessive Energy - Losses	555	\$0
11 Real Time Non-Excessive Energy	555	\$1,102,922
12 Real Time Non-Excessive Energy - Congestion	555	(\$380,281)
13 Real Time Non-Excessive Energy - Losses	555	(\$70,454)
14 Real Time Net Regulation Adjustment	555	\$6,667
15 <b>Total Resource Energy</b>		<u><u>\$645,048</u></u>
<b>Cost Distribution</b>		
16 Real Time Regulation Reserve Cost Distribution	555	\$114,734
17 Real Time Spinning Reserve Cost Distribution	555	\$64,205
18 Real Time Supplemental Reserve Cost Distribution	555	\$10,845
19 <b>Total Cost Distribution</b>		<u><u>\$189,784</u></u>
<b>Penalties</b>		
20 Real Time Excessive/Deficient Energy Deployment	555	\$15,678
21 Real Time Contingency Reserve Deployment Failure	555	\$0
22 <b>Total Penalties</b>		<u><u>\$15,678</u></u>
23 <b>Grand Total ASM Charges</b>		<u><u>\$814,613</u></u>

Derivation of March 2020 Replacement Costs for Disallowed PPAs

	<u>NSP System</u>	<u>ND Allocation<sup>1</sup></u>	<u>ND Jurisdiction</u>	
<b>Fuel &amp; Purchased Energy Costs</b>				
1 Fuel & Purch Energy Costs (Retail) <sup>2</sup>	\$67,613,863	6.1098%	\$4,131,096	Att B, Col D, line 6+10
Disallowed PPA Costs				
2 15 C-BED Wind PPAs	(\$4,255,906)	6.1098%	(\$260,029)	
3 7 Solar PPAs	(\$3,016,650)	6.1098%	(\$184,312)	
4 Wind Curtailment Payments	(\$225,298)	6.1098%	(\$13,765)	
5 Total Exclusion	<u>(\$7,497,853)</u>		<u>(\$458,107)</u>	
6 Adjusted Fuel & Purchased Energy Costs	<u>\$60,116,010</u>	6.1098%	<u>\$3,672,989</u>	Line 1 - line 5
<b>Energy Sales (Billing Mo.)</b>				
	[a]	[b]	[c]	
7 MWh Energy Sales	3,326,407	6.1098%	203,238	[b]=[c]/[a]
8 Disallowed PPA MWh Energy Sales	(110,099)	6.1098%	(6,727)	
9 Adjusted MWh Sales (Billing Mo.)	<u>3,216,308</u>		<u>196,511</u>	
<b>Replacement Costs</b>				
10 Avg. Cost (\$/MWh) w/o Disallowed PPAs	\$18.69		\$18.69	Line 6 / line 9
11 Replacement Cost for Disallowed PPAs <sup>3</sup>	\$2,057,750		\$125,728	Line 8 x line 10
<b>Impact of Disallowance</b>				
12 Net Impact of Disallowance	(\$5,440,103)		(\$332,379)	Line 5 + line 11
13 FCR Rate Impact of Disallowance /kWh			-0.164¢	Line 12 / line 7
14 Residential Monthly Bill Impact (750 kWh)			(\$1.23)	Line 13 x 750

<sup>1</sup> Based on ratio of ND billed energy sales to NSP System billed sales as shown in line 7

<sup>2</sup> Including MISO charges

<sup>3</sup> Reflects the average system fuel and purchased energy cost per kWh (excluding the disallowed PPA costs and volumes) applied to the energy volumes of the disallowed PPAs.

Derivation of FCR True-Up Adjustment - March 2020

**Cost to Recover in March 2020**

	[a] Mar Sys Fuel <u>Cost/kWh<sup>1</sup></u>	[b] Mar ND <u>MWh Sales<sup>2</sup></u>	<u>Amount</u>	
1 Fuel & Purchased Energy Costs	1.869¢	203,238	\$3,798,518	
2 True Up Amount for January 2020			<u>\$2,546,858</u>	
3 Net Costs			<u><u>\$6,345,376</u></u>	Line 1 + Line 2

**Cost Recovered in March 2020**

	<u>Sales</u>	<u>Amount</u>
4 <u>Fuel &amp; Purchased Energy</u>		
(i) Residential	75,925	\$1,536,760
5 (ii) C & I Non-Demand	10,963	\$229,929
6 (iii) C & I Demand Non-TOD	68,045	\$1,408,426
7 (iv) C & I Demand TOD On-Peak	17,876	\$464,004
8 (v) C & I Demand TOD Off-Peak	28,787	\$464,362
9 (vi) Outdoor Lighting	1,642	\$24,604
10 Total	<u><u>203,238</u></u>	<u><u>\$4,128,085</u></u>

**True-Up Obligation**

11 (i) Residential	75,925	(\$88,207)
12 (ii) C & I Non-Demand	10,963	(\$14,611)
13 (iii) C & I Demand Non-TOD	68,045	(\$90,715)
14 (iv) C & I Demand TOD On-Peak	17,876	(\$15,760)
15 (v) C & I Demand TOD Off-Peak	28,787	(\$14,863)
16 (vi) Outdoor Lighting	1,642	(\$3,203)
17 Total	<u><u>203,238</u></u>	<u><u>(\$227,359)</u></u>

18 Net Recovery		<u><u>\$3,900,726</u></u>	Line 10 + Line 17
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**Over/Under Recovered Costs**

19 True-Up Amount for March 2020		<u><u>\$2,444,650</u></u>	Line 3 - Line 18
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<sup>1</sup> Reflects the average for the month of March 2020.

<sup>2</sup> Actual ND sales in month of March 2020.

Summary of Credits and Other Adjustments Included in the FCR by Month

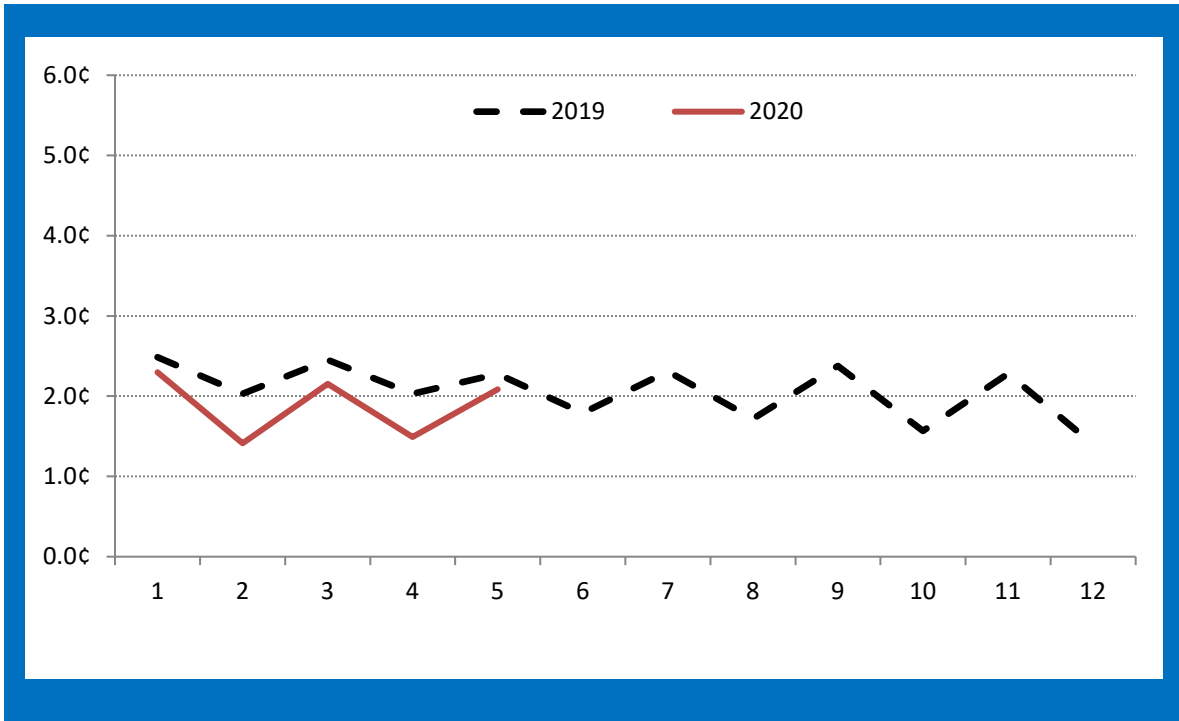
Margin Sharing and REC Sales Proceeds Credits

Month	Asset Based Margins	Non-Asset Based Margins		Renewable Energy Credits	Total
1 January	(\$899,485)	(\$370,661)		(\$55,876)	(\$1,326,022)
2 February	(\$852,306)	(\$36,257)		(\$57,272)	(\$945,835)
3 March	(\$875,142)	(\$277,301)		(\$43,092)	(\$1,195,536)
4 April					
5 May					
6 June					
7 July					
8 August					
9 September					
10 October					
11 November					
12 December					
13 Cumulative	<b>(\$2,626,933)</b>	<b>(\$684,219)</b>		<b>(\$156,240)</b>	<b>(\$3,467,393)</b>

Biomass Contracts Termination Cost Recovery

Month	Benson Amortization (Regulatory Asset)	Benson Amortization (Plant Impairment)	Benson ROE (Regulatory Asset)	Benson ROE (Plant Impairment)	Laurentian Payment	Pine Bend Payment	Total
	FERC 557	FERC 407	FERC 182.2	FERC 182.3			
14 January	\$21,516	\$19,962	\$6,961	\$7,570	\$0	\$4,108	\$60,117
15 February	\$21,517	\$19,947	\$6,881	\$7,495	\$0	\$4,367	\$60,207
16 March	\$21,517	\$19,947	\$6,807	\$7,419	\$0	\$1,419	\$57,109
17 April							
18 May							
19 June							
20 July							
21 August							
22 September							
23 October							
24 November							
25 December							
26 Cumulative	<b>\$64,550</b>	<b>\$59,856</b>	<b>\$20,649</b>	<b>\$22,484</b>	<b>\$0</b>	<b>\$9,894</b>	<b>\$177,433</b>

### Historical Trend of FCR Charges (Residential)



Residential Fuel Cost Charges				
	<u>2019</u>	<u>Bill Impact<sup>1</sup></u>	<u>2020</u>	<u>Bill Impact<sup>1</sup></u>
1 January	2.486¢	\$18.65	2.298¢	\$17.24
2 February	2.030¢	\$15.23	1.413¢	\$10.60
3 March	2.451¢	\$18.38	2.152¢	\$16.14
4 April	2.031¢	\$15.23	1.492¢	\$11.19
5 May	2.279¢	\$17.09	2.087¢	\$15.65
6 June	1.789¢	\$13.42		
7 July	2.309¢	\$17.32		
8 August	1.719¢	\$12.89		
9 September	2.377¢	\$17.83		
10 October	1.566¢	\$11.75		
11 November	2.283¢	\$17.12		
12 December	<u>1.400¢</u>	<u>\$10.50</u>		
13 Average	2.060¢	\$15.45	1.888¢	\$14.16

<sup>1</sup> For non-electric heating residential customers using 750 kWh

