



414 Nicollet Mall  
Minneapolis, MN 55401

April 12, 2019

**PUBLIC DOCUMENT:  
NOT PUBLIC DATA HAS BEEN EXCISED**

**—Via Electronic Filing—**

Daniel P. Wolf  
Executive Secretary  
Minnesota Public Utilities Commission  
121 7<sup>th</sup> Place East, Suite 350  
St. Paul, MN 55101

RE: ERRATA TO COMPLIANCE FILING  
RENEWABLE\*CONNECT PILOT PROGRAM  
DOCKET NO. E002/M-15-985

Dear Mr. Wolf:

Northern States Power Company, doing business as Xcel Energy, submits to the Minnesota Public Utilities Commission this Errata to the Company's April 1, 2019 Compliance Filing and tracker account, as well as our proposed 2020 Month-to-Month and Special Events rates, and Neutrality Charge.

Since making the initial filing, we have identified some incorrect data in Attachment A, 2018 Renewable\*Connect Sales, Revenue and Expense Tracker. The corrections in Attachment A carried over to Tables 5 and 6 of the Compliance Filing. Additionally, we correct an inadvertent marking of information with a Non-Public designation. We note the location of the corrections below and provide a corrected filing in its entirety with updates shown in **red font**.

*Table 5 – Renewable\*Connect Government Revenue & Expenses*

*Table 6 – Non-Participants Impact*

*Attachment A – 2018 Renewable\*Connect Sales, Revenue and Expense Tracker*

*The following lines from Attachment A have had the Non-Public designation removed:*

- **Section: Renewable\*Connect Program Expense (Dollars):**  
*Total Production Cost, Neutrality Recovery, Credits to the Fuel Clause, Marketing and Admin. Expense and Total Renewable\*Connect Expense*

- **Section: Neutrality (Dollars)**  
*Total Neutrality Recovery*
- **Section: Marketing & Admin (Dollars):**  
*Total Marketing and Admin. Recovery,*  
**Marketing and Admin. Expense by Type:** *Marketing Expense, Admin. Labor, Total Marketing & Admin Expense*  
**Marketing and Admin. Expenses by Program:** *Total Marketing & Admin Expense, Marketing/ Admin – Over/ (Under) Recovery*
- **Section: Capacity Credit Amount Embedded in Base Rates (Dollars)**  
*Total R\*C and R\*CG Sales*

We have electronically filed this document with the Minnesota Public Utilities Commission, and copies have been served on the parties on the attached service lists. Please contact Pamela Gibbs at [pamela.k.gibbs@xcelenergy.com](mailto:pamela.k.gibbs@xcelenergy.com) or 612-330-2889 or me at [holly.r.hinman@xcelenergy.com](mailto:holly.r.hinman@xcelenergy.com) or 612-330-5941 if you have any questions regarding this filing.

Sincerely,

/s/

HOLLY HINMAN  
REGULATORY MANAGER  
c: Service List

STATE OF MINNESOTA  
BEFORE THE  
MINNESOTA PUBLIC UTILITIES COMMISSION

Dan Lipschultz	Commissioner
Matthew Schuerger	Commissioner
Katie J. Sieben	Commissioner
John A. Tuma	Commissioner

PETITION OF NORTHERN STATES  
POWER COMPANY FOR APPROVAL OF A  
RENEWABLE\*CONNECT PILOT  
PROGRAM

DOCKET NO. E002/M-15-985

**ANNUAL COMPLIANCE FILING,  
TRACKER ACCOUNT REPORT,  
AND PROPOSED 2020 TARIFF  
RATES**

**INTRODUCTION**

Northern States Power Company, doing business as Xcel Energy, submits to the Minnesota Public Utilities Commission our Renewable\*Connect pilot program compliance filing and tracker account report in accordance with the Commission's February 27, 2017 Order in Docket No. E-002/M-15-985 and August 13, 2018 Order in Docket No. E002/M-18-252. In addition, we are filing our 2020 Month-to-Month and Special Event tariff rate, as well as our Neutrality Charge, and we are requesting Commission approval of these rates.

We note that the Commission Order requires the Company to file an annual compliance report each April 1 after the "first full year of operation" which, on a calendar year basis was January 1 – December 31, 2018.

As of May 23, 2018, the pilot program was 100 percent subscribed. As of December 31, 2018, there were roughly 1,100 customers on the waitlist.

More specifically, we can report the following subscriptions and sales for the Renewable\*Connect Program:

**Table 1 – Renewable\*Connect Program Subscriptions & Sales**

<b>Customer Class</b>	<b>Number of Subscribers</b>	<b>kWh Sales</b>
Residential	3,217	20,885,877
Small Commercial	37	377,707
Demand Billed	112	118,195,941
<b>Total</b>	<b>3,366</b>	<b>139,459,525</b>

## **I. REPORTING REQUIREMENTS**

### **A. Compliance Requirements**

This compliance filing covers the Renewable\*Connect Pilot Program activity for the period of January 1, 2018 to December 31, 2018.

As required by the February 27, 2017 Order, each annual compliance report shall provide the following data:

#### **Order Point 5.**

Xcel shall file annual reports each April 1 after the first full year of operation as listed in its filing. The annual report shall contain:

- a. Total number of participants broken down by customer class, and by length of contract (including special events) – See Table 2;
- b. Total wind production – See Table 3;
- c. Total solar production – See Table 3;
- d. Total Renewable\*Connect expenses – See Table 4;
- e. Total Renewable\*Connect Government expenses – See Table 5;
- f. Total Amount collected in Renewable\*Connect charges – See Table 4;
- g. Total Amount collected in Renewable\*Connect Government charges – See Table 5;
- h. The Tracker balances as shown in Attachment H of Xcel’s filing – See Section C. and Attachment A;
- i. Monthly comparisons of Renewable\*Connect Pricing for participants with the Fuel Charge for nonparticipant customers – See Section D;

- j. Impact of Renewable\*Connect pilots on all nonparticipant customers – See Section E;
- k. Impact on all Xcel Ratepayers through updates in base rates – See Section F.; and
- l. Information on the number of terminations and an accounting of termination fees – See Section G.

In this filing we also respond to the Commission’s August 13, 2018 Order in Docket No. E002/18-252, addressing proposed revisions to the methodology for calculating the Neutrality Adjustment.

## **B. Summary Data (Order Points 5.a. – 5.g.)**

Please note that certain portions of our compliance report data and tracker account have been designated as Trade Secret information pursuant to Minnesota Statute § 13.37, subd. 1(b). In particular, the information designated as Trade Secret derives independent economic value, actual or potential, from not being generally known to, and not being readily ascertainable by proper means by, other persons who can obtain economic value from its disclosure or use.

In addition, we have designated certain customer information as nonpublic data with regard to data not on individuals or as private data on individuals pursuant to Minn. Stat. §13.02, Subds. 9 and 12 . Specifically, data such as customer payments and costs in conjunction with the Renewable\*Connect Government program have been removed from the public version of this report, consistent with Minn. Stat. §§ 13.37, Subd. 2(a).

Tables 2, 3, 4 and 5 below summarize some of the key data required by Order Point 5:

**Table 2 – Renewable\*Connect Participants by Class and Length of Contract  
(Order Point 5.a.)**

<b>Customer Class</b>	<b>Monthly</b>	<b>5 Year</b>	<b>10 Year</b>	<b>Total</b>
Residential	1,500	1,096	621	3,217
Commercial	16	14	7	37
Demand Billed	30	43	39	112
<b>Total</b>	<b>1,546</b>	<b>1,153</b>	<b>667</b>	<b>3,366</b>

There were no special event subscriptions during the current reporting period.

**Table 3 – Renewable\*Connect Wind and Solar Production**  
 (Order Point 5.b. – 5.c.)

Resource	Production <sup>1</sup> (kWh)	Percent
<b>[PROTECTED DATA BEGINS:</b>		
Wind		
Solar		
<b>PROTECTED DATA ENDS]</b>		

**Table 4 – Renewable\*Connect Revenue & Expenses**  
 (Order Point 5.d. and 5.f.)

	2018 Reporting Period
<b>Revenue</b>	
Customer Payments:	<b>[PROTECTED DATA BEGINS:</b>
Month-to-Month	
Five Year Contract	
Ten Year Contract	
Other:	
Capacity Credit	
<b>Total Revenue</b>	
<b>Expenses</b>	
Resource Production Cost	
Neutrality Charges	
Marketing & Admin.	
<b>Total Expenses</b>	
	<b>PROTECTED DATA ENDS]</b>
<b>Balance</b>	\$331,674

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<sup>1</sup> Production corresponds to Total Program Wind and Solar “Production Requirement” in Attachment A.

**Table 5 – (*corrected*) Renewable\*Connect Government Revenue & Expenses  
(Order Point 5.e. and 5.g.)**

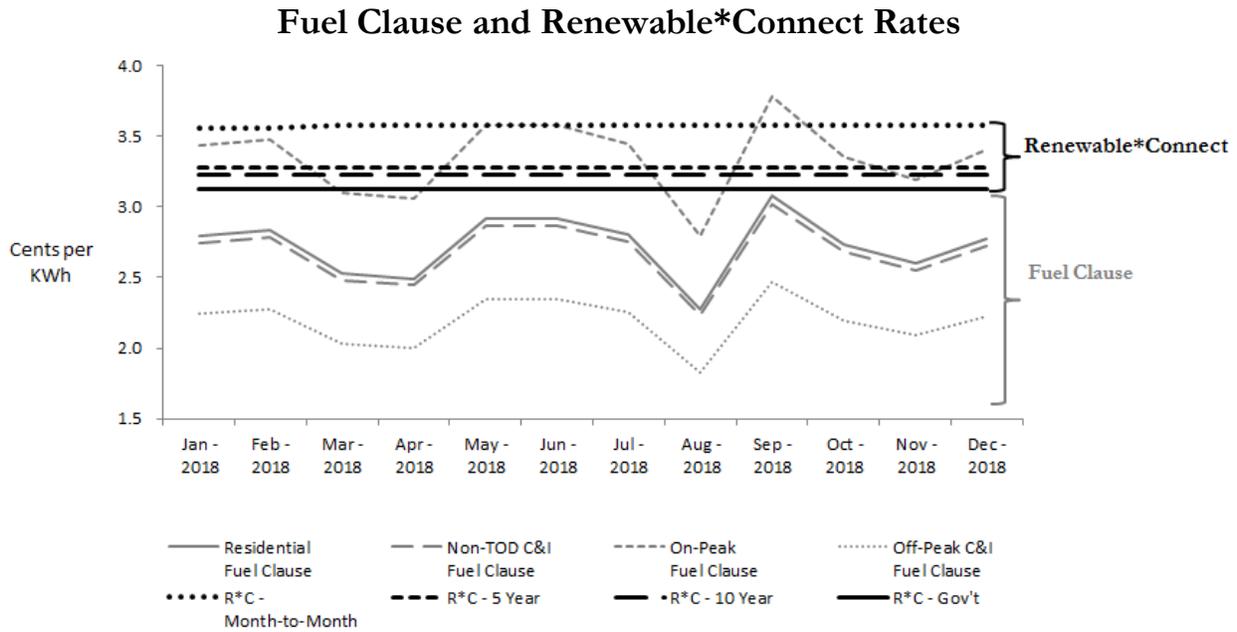
	2018 Reporting Period	
<b>Revenue</b>		
Customer Payments:	[PROTECTED DATA BEGINS:	
Month-to-Month		
Other:		
Capacity Credit		*
<b>Total Revenue</b>		*
<b>Expenses</b>		
Resource Production Cost		*
Neutrality Charges		
Marketing & Admin.		
<b>Total Expenses</b>		*
	<b>PROTECTED DATA ENDS]</b>	
<b>Balance</b>	\$57,701 <b>18,152</b>	*

**C. Tracker Account Report (Order Point 5.h.)**

A Renewable\*Connect Pilot Program tracker account report is included as Attachment A.

**D. Pricing and Fuel Clause Rates (Order Point 5.i.)**

The Renewable\*Connect pricing for all subscription classes was higher than all non-on-peak fuel clause rates. See graph below.



**E. Impact on Non-Participants/Ratepayers (Order Point 5.j.)**

To test the effectiveness of the Company’s neutrality charge, the Company reviewed the actual system impact of the resources across the identified categories. As expected, line losses were the most significant impact across the cost categories as illustrated in Table 6. Curtailments, on the other hand, were expected to have a larger impact based on experience with other resources. More specifically, the Company expected wind resources would be curtailed more often and solar resources would see minimal curtailments. In 2018, as was the case in 2017, the opposite occurred. The program’s wind resources were curtailed less than the program’s solar resources. Curtailments on program solar resources totaled nearly \$40,000 and \$4,109 were allocated to the program.

To understand the potential impact of the Renewable\*Connect Program on non-participant energy cost, the Company performed an analysis that compared the marginal cost of energy, in this case on and off-peak LMP pricing, to the PPA cost of solar and wind resources allocated to Renewable\*Connect, consistent with the analysis the Company performed for the prior annual compliance filing. The results continue to directionally indicate that non-participants were not impacted on a cost of energy basis as the cost of the wind and solar energy exceeded the marginal energy cost estimate. Therefore, in 2018 no incremental costs were borne by non-participating customers during the current reporting period.

The Company added integration costs to the list of impacts under the Economic/Balancing category. Wind integration cost rates provided in the Company's Dakota Range filing in Docket No. M-17-694 were also used to estimate the cost of the integration of the program's wind resources. The analysis results in an estimate of nearly \$185,000 in wind integration costs for the 2018 reporting period.

**Table 6 – *(Corrected)* Non-Participants Impact**

	2018	
Line Losses	\$341,813	
Solar Curtailments	\$4,109	
Wind Curtailments	\$3,594	
Economic/Balancing	\$184,916	
Total	\$534,432	
Neutrality Payments	<del>\$706,319</del> 717,115	*
Non-Participant Cost/(Benefit)	<del>\$(171,886)</del> (182,683)	*

**F. Impact on all Xcel Energy Ratepayers Through Updates in Base Rates (Order Point 5.k.)**

There were no updates to base rates in calendar year 2018.

**G. Terminations (Order Point 5.l.)**

There were no business customer terminations during the current reporting period. There were 26 residential customer terminations, which resulted in a total of \$1,778 in termination fees. Residential terminations were due to the customer moving out of our service territory.

## H. Neutrality Adjustment (Order Point 2, Docket 18-252)

Since the Renewable\*Connect Pilot was approved, the Company has developed two tools to measure the cost of intergrating and balancing renewable energy on the system. First, the Company developed wind integration costs associated with current and new wind projects in the Company's 302.4 MW Dakota Range I and II filing in Docket No. E002/M-17-694 as previously mentioned. The Company incorporated these values and resulting costs into the non-participant analysis.

Second, the Company also included a seasonal balancing cost analysis in the Company's petition to expand the Renewable\*Connect program, Docket No. E002/M-19-33. Please see Attachment C (as filed in Docket E002/M-19-33) referencing these tools. The goal of this analysis is to put a value on the seasonal timing difference between program usage and program resource production. More specifically, the analysis uses LMP pricing to measure the the cost differential of excess program usage in the summer with excess energy supplied by program resources in the winter. However, the Company does not believe it's appropriate to incorporate this analysis into the non-participant impact of the Renewable\*Connect Pilot because the pilot program is self-balanced within the program's resources. The Renewable\*Connect Pilot was designed to use 25 percent or less of the program resources and therefore these resources are able to supply the energy needed for the program each month and a balancing cost is not incurred.

## II. LEARNINGS

As indicated in our initial petition, the Company offered Renewable\*Connect as a pilot to test customer interest in program participation and learn more about how to meet customer renewable energy goals. The Company reported initial learnings in the first annual compliance filing. Those learnings are still relevant, and they played a significant role in informing the approach to the proposed expansion of the Renewable\*Connect program (Docket No. E002/M-19-33).

The initial learnings that were reported and described in the prior annual compliance filing included:

- Program resource requirements are difficult to forecast based on customer expressions of interest;
- A robust mix of marketing tactics is needed to yield a large amount of enrollments in a short period of time;

- Development of the Renewable\*Connect Government program has contributed to the Company's ability to better understand the unique requirements of government customers;
- Some customers have enrolled in Renewable\*Connect while expressing interest in additional options such as new renewable resources not yet in place to meet their green energy goals;
- Solar resources on our transmission system were subject to curtailment by the Midcontinent Independent System Operator (MISO); and
- Flexibility is key to addressing the unique situations of individual customers.

Additional learnings that were cited in the proposed expansion of the Renewable\*Connect program (Docket No. E002/M-19-33) include the following.

### **1. Interest in Renewable Choice is Growing**

Customer interest in the ability to voluntarily purchase renewable electricity is getting stronger, and the Company's voluntary renewable programs continue to exceed expectations. Windsource has seen sustained subscription growth and the number of customers on the waiting list for Renewable\*Connect continues to increase. To address this strong customer interest, we are working to expand Renewable\*Connect and to transition Windsource into the Renewable\*Connect structure.

### **2. Customers are Interested in Counting System Renewables Toward Their Goals**

While interest in renewable choice continues to grow, customers are also interested in counting the renewable energy that is delivered as part of their regular service toward their renewable energy goals. The Company is developing an accounting framework to clarify the attribution of system renewable electricity to retail customers.

### **3. Term Length Options and Ongoing Availability**

One particularly important element of providing flexibility to address the unique needs of different customers is offering a variety of term lengths. Customers value the ability to choose different contract lengths that fit their needs and planning horizons. Additionally, as evidenced by the growing number of customers on the Renewable\*Connect waiting list, customers are interested in taking voluntary action to purchase renewable electricity at any time, not just during a limited enrollment period. The program structure of Renewable\*Connect is compelling to many customers, and

the ability to have a flexible month-to-month product with ongoing availability would be valued by customers.

### **III. UPDATE ON RESOURCE ACQUISITION FOR THE EXPANSION OF RENEWABLE\*CONNECT**

Concurrent with the request for approval to expand the Renewable\*Connect program (Docket No. E002/M-19-33), the Company is taking steps to procure resources to supply the program. The final pricing of the new Renewable\*Connect offerings is dependent on the final negotiated PPA prices. We will supplement the record when the acquisition process is completed with the final pricing.

The Company continues to make progress in seeking bids and negotiating terms with potential counterparties in order to secure cost-effective new wind and solar resources to support the expansion of the Renewable\*Connect program. We previously estimated that this process would be completed by Spring of 2019 (Docket No. E002/M-19-33). At this time, contract negotiations are expected to be complete in several months. The resources and final pricing for the new Renewable\*Connect offerings will be filed for Commission approval later in 2019.

### **IV. 2020 PROPOSED RATES**

As indicated in our September 21, 2017 filing regarding revisions to the Renewable\*Connect pilot program, the Company will file updates to its Month-to-Month and Special Event rate, as well as Neutrality Charge, in conjunction with our annual compliance filing. Using this process, the Commission last approved changes to these rates in its August 13, 2018 order in Docket No. E002/M-18-252. Please see Attachment B for our proposed 2020 Month-to-Month and Special Event rates, and Neutrality Charge. The proposed adjustments reflect the yearly costs associated with the production facilities utilized to support the pilot program.

### **CONCLUSION**

Renewable\*Connect is a valuable offering for customers, providing them with a blend of wind and solar resources to meet their renewable energy goals and electric energy requirements. We respectfully request the Commission accept this compliance filing and tracker report, and approve our 2020 Month-to-Month and Special Event rates, and Neutrality Charge.

Docket E002/M-15-985  
Annual Compliance Filing  
Errata

Dated: April 1, 2019

**Resubmitted: April 12, 2019**

Northern States Power Company

2018 Renewable\*Connect Sales, Revenue and Expense Tracker

In MW/hs, except where labeled differently

Renewable*Connect Sales and Associated Renewable Facility Production													
Type/Detail	January	February	March	April	May	June	July	August	September	October	November	December	Total
	[PROTECTED DATA BEGINS...]												
Month-to-Month Billing Month													
5 Year Contract Billing Month													
10 Year Contract Billing Month													
Sub-Total R*C Billing Month													
Government Billing Month													
Total Billing Month													
R*C Wind Production Requirement													
R*C Solar Production Requirement													
Wind Production Production Month													
Solar Production Production Month													
Total Production Production Month													
Wind Production to FCA Net of R*C Requirement													
Solar Production to FCA Net of R*C Requirement													
Total Production to FCA Net of R*C Requirement													

...PROTECTED DATA ENDS]

Renewable*Connect Program Recovery (Dollars)													
	January	February	March	April	May	June	July	August	September	October	November	December	Total
	[PROTECTED DATA BEGINS...]												
Month-to-Month Billing Month													
5 Year Contract Billing Month													
10 Year Contract Billing Month													
Sub-total Renewable*Connect													
Government Billing Month													
Total Renewable*Connect													
Capacity Credits Base Rate Allocation													
Total Renewable Connect Revenue	\$411,072	\$402,009	\$403,316	\$399,712	\$401,768	\$397,372	\$434,523	\$615,247	\$648,297	\$623,475	\$549,246	\$625,848	\$5,911,886

...PROTECTED DATA ENDS]

Renewable*Connect Program Expense (Dollars)													
	January	February	March	April	May	June	July	August	September	October	November	December	Total
	[PROTECTED DATA BEGINS...]												
Month-to-Month													
5 Year Contract													
10 Year Contract													
R*C Production Cost													
R*CG Production Cost													
Total Production Cost	\$335,457	\$326,072	\$326,409	\$323,975	\$325,422	\$321,039	\$346,372	\$504,055	\$531,287	\$510,283	\$477,495	\$486,401	\$4,814,268
Neutrality Recovery	\$50,307	\$48,861	\$48,912	\$48,533	\$48,764	\$48,107	\$52,573	\$74,542	\$78,516	\$75,550	\$66,458	\$75,990	\$717,115
Credits to the Fuel Clause	\$385,765	\$374,933	\$375,321	\$372,508	\$374,186	\$369,147	\$398,945	\$578,597	\$609,803	\$585,833	\$543,954	\$562,391	\$5,531,383
Marketing and Admin. Expense	\$1,448	\$3,208	\$1,859	\$1,591	\$1,907	\$2,220	\$2,807	\$2,519	\$2,892	\$493	\$1,807	\$7,926	\$30,676
Total Renewable Connect Expense	\$387,213	\$378,141	\$377,180	\$374,099	\$376,093	\$371,367	\$401,752	\$581,116	\$612,695	\$586,326	\$545,761	\$570,317	\$5,562,059
Over/(Under) Recovery - Offset to Program Setup Expenses	\$23,859	\$23,869	\$26,137	\$25,614	\$25,674	\$26,006	\$32,771	\$34,131	\$35,602	\$37,149	\$3,485	\$55,531	\$349,827
Prior Year Ending Balance													
Cumulative Balance													

(\$324,152)

\$25,675

2018 Renewable\*Connect Sales, Revenue and Expense Tracker

*In MW's, except where labeled differently*

MEMO: Individual Rate Component Recovery

Neutrality (Dollars)

Credits to the Fuel Clause

	January	February	March	April	May	June	July	August	September	October	November	December	Total
	[PROTECTED DATA BEGINS...]												
Months-to-Month	0.477												
5 Year Contract	0.477												
10 Year Contract	0.477												
R*C Neutrality Recovery													
R*CG Neutrality Recovery	0.477												
	...PROTECTED DATA ENDS]												
Total Neutrality Recovery	\$50,307	\$48,861	\$48,912	\$48,533	\$48,764	\$48,107	\$52,573	\$74,542	\$78,516	\$75,550	\$66,458	\$75,990	\$717,115

Marketing & Admin (Dollars)

Marketing and Admin. Charge Revenue

	January	February	March	April	May	June	July	August	September	October	November	December	Total
	[PROTECTED DATA BEGINS...]												
Month-to-Month	0.525												
5 Year Contract	0.275												
10 Year Contract	0.225												
Sub-total R*C													
R*CG	0.125												
	...PROTECTED DATA ENDS]												
Total Marketing and Admin Recovery	\$26,383	\$25,168	\$25,701	\$24,997	\$25,265	\$25,832	\$28,455	\$39,749	\$42,261	\$40,325	\$36,276	\$39,321	\$379,733

Marketing and Admin. Expenses by Type

	January	February	March	April	May	June	July	August	September	October	November	December	Total
Marketing Expense	979.07	1,386.92	1,351.34	1,020.50	1,323.43	1,293.35	1,879.33	1,584.96	1,336.81	625.67	663.40	5,057.50	\$18,502
Admin. Labor	469.14	1,820.96	507.28	570.32	583.54	926.37	927.47	933.82	1,555.06	(132.53)	1,144.07	2,868.64	\$12,174
Total Marketing & Admin Expense	\$1,448	\$3,208	\$1,859	\$1,591	\$1,907	\$2,220	\$2,807	\$2,519	\$2,892	\$493	\$1,807	\$7,926	\$30,676

Marketing and Admin. Expenses by Program

	January	February	March	April	May	June	July	August	September	October	November	December	Total
	[PROTECTED DATA BEGINS...]												
R*C													
R*CG													
	...PROTECTED DATA ENDS]												
Total Marketing & Admin Expense	\$1,448	\$3,208	\$1,859	\$1,591	\$1,907	\$2,220	\$2,807	\$2,519	\$2,892	\$493	\$1,807	\$7,926	\$30,676
Marketing/ Admin - Over/(Under) Recovery	24,934	21,960	23,842	23,406	23,358	23,613	25,648	37,230	39,369	39,832	34,469	31,395	\$49,057

Capacity Credit Amount Embedded in Base Rates (Dollars)

	January	February	March	April	May	June	July	August	September	October	November	December	Total
	[PROTECTED DATA BEGINS...]												
Months-to-Month	0.674												
5 Year Contract	0.674												
10 Year Contract	0.674												
Sub-total R*C													
R*CG	0.674												
	...PROTECTED DATA ENDS]												
Total R*C and R*CG Sales	\$71,084	\$69,040	\$69,112	\$68,578	\$68,903	\$67,976	\$74,286	\$105,328	\$110,943	\$106,753	\$93,905	\$107,373	\$1,013,282

**Redline**

**VOLUNTARY RENEWABLE\*CONNECT PILOT PROGRAM  
 RIDER (Continued)**

Section No. 5  
~~3rd~~<sup>4th</sup> Revised Sheet No. 150

**RATE**

The R\*C Price for the pilot phase R\*C Resources of each R\*C Service Type shall be as follows based on year of production, unless otherwise provided for in this tariff:

Month-To-Month R*C or Single Event R*C Service Type	
Year number	\$/kWh
<del>2 (2018)</del> 3 (2019)	<del>\$0.03577</del> \$0.03599
<del>3 (2019)</del> 4 (2020)	<del>\$0.03599</del> \$0.03623

DL  
LN

**5-Year and 10-Year R\*C Service Type**

Year	5-Year Contract (\$/kWh)	10-Year Contract (\$/kWh)
2017	\$0.03243	\$0.03193
2018	\$0.03280	\$0.03230
2019	\$0.03317	\$0.03267
2020	\$0.03330	\$0.03280
2021	\$0.03345	\$0.03295
2022	\$0.03361	\$0.03349
2023	\$0.03429	\$0.03404
2024	\$0.03497	\$0.03460
2025	\$0.03569	\$0.03519
2026	\$0.03642	\$0.03580

**NEUTRALITY CHARGE**

The R\*C Price includes a neutrality charge to mitigate the impact of the R\*C Pilot program on non-participating customers. The standard neutrality charge is as follows:

Year number	\$/kWh
<del>2 (2018)</del> 3 (2019)	<del>\$0.00477</del> \$0.00483
<del>3 (2019)</del> 4 (2020)	<del>\$0.00483</del> \$0.00488

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Customers receiving service under the Company's Business Incentive and Sustainability Rider, Competitive Response Rider, Residential Electric Vehicle Service (Rate Code A08), or Residential Electric Vehicle Pilot Service (Rate Code A80, A81) shall not be subject to the neutrality charge portion of the R\*C Price.

**TRACKER ACCOUNT**

Due to the variability of renewable resources, the Renewable\*Connect program tracker account may have an excess or shortage of supply in any given hour or month. The Company will balance Renewable\*Connect program usage at the end of the program year in accordance with the expected resource blend. As a result, the program may require more or less of a share of the expected program allocation. Energy produced by the R\*C Resources that is not associated with any R\*C Service subscription and therefore not allocated to an R\*C Customer will be sold to all customers at the delivered cost through the Fuel Clause Adjustment. The Company will maintain accounting of the monthly balance of total R\*C Resources production, total program usage, total revenues collected under the program and the expenses associated with offering the R\*C Service, including the renewable energy purchases, marketing and other costs for this program. The Company may petition the Commission annually to true up the marketing and administrative cost tracker balance and apply the resulting true-up factors to the Month-To-Month R\*C Price.

(Continued on Sheet No. 5-151)

Date Filed:	<del>04-02-18</del> 04-01-19	By: Christopher B. Clark	Effective Date:	<del>08-13-18</del>
		President, Northern States Power Company, a Minnesota corporation		
Docket No.	E002/M- <del>18-252-15-985</del>		Order Date:	<del>08-13-18</del>

**Clean**

**VOLUNTARY RENEWABLE\*CONNECT PILOT PROGRAM  
 RIDER (Continued)**

Section No. 5  
 4th Revised Sheet No. 150

**RATE**

The R\*C Price for the pilot phase R\*C Resources of each R\*C Service Type shall be as follows based on year of production, unless otherwise provided for in this tariff:

<b>Month-To-Month R*C or Single Event R*C Service Type</b>	
Year number	\$/kWh
3 (2019)	\$0.03599
4 (2020)	\$0.03623

DL  
LN

**5-Year and 10-Year R\*C Service Type**

Year	5-Year Contract (\$/kWh)	10-Year Contract (\$/kWh)
2017	\$0.03243	\$0.03193
2018	\$0.03280	\$0.03230
2019	\$0.03317	\$0.03267
2020	\$0.03330	\$0.03280
2021	\$0.03345	\$0.03295
2022	\$0.03361	\$0.03349
2023	\$0.03429	\$0.03404
2024	\$0.03497	\$0.03460
2025	\$0.03569	\$0.03519
2026	\$0.03642	\$0.03580

**NEUTRALITY CHARGE**

The R\*C Price includes a neutrality charge to mitigate the impact of the R\*C Pilot program on non-participating customers. The standard neutrality charge is as follows:

Year number	\$/kWh
3 (2019)	\$0.00483
4 (2020)	\$0.00488

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Customers receiving service under the Company's Business Incentive and Sustainability Rider, Competitive Response Rider, Residential Electric Vehicle Service (Rate Code A08), or Residential Electric Vehicle Pilot Service (Rate Code A80, A81) shall not be subject to the neutrality charge portion of the R\*C Price.

**TRACKER ACCOUNT**

Due to the variability of renewable resources, the Renewable\*Connect program tracker account may have an excess or shortage of supply in any given hour or month. The Company will balance Renewable\*Connect program usage at the end of the program year in accordance with the expected resource blend. As a result, the program may require more or less of a share of the expected program allocation. Energy produced by the R\*C Resources that is not associated with any R\*C Service subscription and therefore not allocated to an R\*C Customer will be sold to all customers at the delivered cost through the Fuel Clause Adjustment. The Company will maintain accounting of the monthly balance of total R\*C Resources production, total program usage, total revenues collected under the program and the expenses associated with offering the R\*C Service, including the renewable energy purchases, marketing and other costs for this program. The Company may petition the Commission annually to true up the marketing and administrative cost tracker balance and apply the resulting true-up factors to the Month-To-Month R\*C Price.

(Continued on Sheet No. 5-151)

Date Filed: 04-01-19 By: Christopher B. Clark Effective Date:  
 President, Northern States Power Company, a Minnesota corporation  
 Docket No. E002/M-15-985 Order Date:

### Renewable\*Connect Standard Monthly Balancing Example - Long Term

	January	February	March	April	May	June	July	August	September	October	November	December	Total
<b>Expected Production (MWh)</b>	[PROTECTED DATA BEGINS:												
Wind	[REDACTED]												
Solar	[REDACTED]												
Total	[REDACTED]												
													<b>PROTECTED DATA ENDS]</b>
Actual MN Sales Billing	9%	8%	8%	8%	8%	9%	9%	10%	8%	8%	7%	8%	8%
	[PROTECTED DATA BEGINS:												
Usage	[REDACTED]												
Production Over/(Under)	[REDACTED]												
													<b>PROTECTED DATA ENDS]</b>
Monthly Production Shortfall	2,039	1,566	-	-	-	1,139	3,556	7,297	2,509	-	-	1,409	19,515
Excess Energy to Fuel Clause	-	-	1,544	4,849	7,077	-	-	-	-	2,002	4,042	-	19,515
<b>Program Usage</b>	[PROTECTED DATA BEGINS:												
New Wind	[REDACTED]												
New Solar	[REDACTED]												
Balancing	[REDACTED]												
Total	[REDACTED]												
													<b>PROTECTED DATA ENDS]</b>

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Monthly Balancing Cost Detail - Standard Option - Long Term

In thousands of kWh, except where labeled otherwise

Annual PPA Cost Differential of Balancing Energy - R\*C Wind Resource vs. System Resource

	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040
	[PROTECTED DATA BEGINS:]																			
Balancing Energy Required																				
Balancing Energy Cost per MWh																				
Cost of Balancing Energy																				
Excess R*C Wind Energy																				
Excess R*C Wind Energy Cost per MWh																				
Cost of R*C Wind Energy																				
	[PROTECTED DATA ENDS]																			
Annual PPA Balancing Energy Cost Differential	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0

Seasonal Differential Value of Balancing Energy

	Value of Monthly Balancing Energy @ LMP			Value of Excess Energy @ LMP			Net Value of Monthly Balancing Wind Energy @ LMP		
	Summer	Winter	Total	Summer	Winter	Total	Summer	Winter	Total
On-Peak Energy	5,729	1,981	7,710	0	7,710	7,710			
Off-Peak Energy	8,772	3,033	11,805	0	11,805	11,805			
Monthly Balancing Energy Required (000s)	14,500	5,014	19,515	0	19,515	19,515			
LMP (\$/MWh)									
On-Peak Energy	\$32.95	\$25.89		\$32.95	\$25.89				
Off-Peak Energy	\$20.19	\$19.65		\$20.19	\$19.65				
Energy Value									
On-Peak Energy	\$188,779	\$51,290	\$240,069	\$0	\$199,606	\$199,606	\$188,779	(\$148,316)	\$40,463
Off-Peak Energy	\$177,076	\$59,596	\$236,672	\$0	\$231,931	\$231,931	\$177,076	(\$172,336)	\$4,741
Total	\$365,856	\$110,886	\$476,741	\$0	\$431,538	\$431,538	\$365,856	(\$320,652)	\$45,204

Summary

Annual PPA Balancing Energy Cost Differential	\$49,843	\$50,840	\$51,857	\$52,895	\$53,953	\$55,032	\$56,131	\$57,255	\$58,398	\$59,567	\$60,760	\$61,974	\$63,213	\$64,477	\$65,767	\$67,083	\$68,423	\$69,791	\$71,188	\$72,012
Seasonal Differential Value of Balancing Energy	\$45,204	\$46,221	\$47,261	\$48,324	\$49,412	\$50,523	\$51,660	\$52,822	\$54,011	\$55,226	\$56,469	\$57,739	\$59,038	\$60,367	\$61,725	\$63,114	\$64,534	\$65,986	\$67,471	\$68,989
Annual Balancing Cost	\$95,047	\$97,061	\$99,118	\$101,219	\$103,364	\$105,555	\$107,791	\$110,077	\$112,409	\$114,794	\$117,228	\$119,713	\$122,251	\$124,844	\$127,492	\$130,196	\$132,957	\$135,777	\$138,659	\$141,001
Program Energy	234,835	234,637	234,286	233,936	233,585	233,235	232,885	232,556	232,206	231,877	231,549	231,198	230,870	230,541	230,213	229,906	229,578	229,249	228,943	228,614
Balancing Cost per MWh (in Dollars)	0.405	0.414	0.423	0.433	0.443	0.453	0.463	0.473	0.484	0.495	0.506	0.518	0.530	0.542	0.554	0.566	0.579	0.592	0.606	0.617
Balancing Cost per kWh (in Cents)	0.040	0.041	0.042	0.043	0.044	0.045	0.046	0.047	0.048	0.050	0.051	0.052	0.053	0.054	0.055	0.057	0.058	0.059	0.061	0.062

## CERTIFICATE OF SERVICE

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

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

xx electronic filing

**Docket Nos. E002/M-15-985**

Dated this 12th day of April 2019

/s/

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Paget Pengelly  
Regulatory Administrator