

February 5, 2016

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

RE: RESPONSE TO MPUC INFORMATION REQUESTS NO. 001 – 005 COMMISSION INQUIRY INTO FEES CHARGED ON QUALIFYING FACILITIES DOCKET NO. E999/CI-15-755

Dear Mr. Wolf:

Enclosed please find our response to the Minnesota Public Utilities Commission's information requests in the above-noted docket.

Please note that due to file size, we are separately e-filing MPUC-005 Attachments B.1., B.2. and B.3. We are also e-filing a live version of MPUC-003 Attachment A.

Please contact me at (612) 330-2952 if you have any questions regarding this submission.

Sincerely,

/s/

TIMOTHY J. EDMAN REGULATORY CASE SPECIALIST

Enclosure

CERTIFICATE OF SERVICE

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

- <u>xx</u> by depositing a true and correct copy thereof, properly enveloped with postage paid in the United States mail at Minneapolis,
 Minnesota,
- <u>xx</u> electronic filing

Docket No. E999/CI-15-755

Dated this 5 th	day of February 2016
/s/	
Carl Cronin	

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Daniel	Williams	DanWilliams.mg@gmail.co m	Powerfully Green	11451 Oregon Avenue N Champlin, MN 55316	Electronic Service	No	OFF_SL_15-755_Official Service List _PUC
Randi	Winter	rwinter@felhaber.com	Felhaber Larson	Felhaber Larson 220 South Sixth Stree Suite 2200 Minneapolis, MN 55402	Electronic Service	No	OFF_SL_15-755_Official Service List _PUC
Cam	Winton	cwinton@mnchamber.com	Minnesota Chamber of Commerce	400 Robert Street North Suite 1500 St. Paul, Minnesota 55101	Electronic Service	No	OFF_SL_15-755_Official Service List _PUC

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Robyn	Woeste		Interstate Power and Light Company	200 First St SE Cedar Rapids, IA 52401	Electronic Service	No	OFF_SL_15-755_Official Service List _PUC
Daniel P	Wolf	dan.wolf@state.mn.us	Public Utilities Commission	121 7th Place East Suite 350 St. Paul, MN 551012147	Electronic Service	Yes	OFF_SL_15-755_Official Service List_PUC
Thomas J.	Zaremba	TZaremba@wheelerlaw.co m	WHEELER, VAN SICKLE & ANDERSON	44 E. Mifflin Street, 10th Floor Madison, WI 53703	Electronic Service	No	OFF_SL_15-755_Official Service List _PUC

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Xcel Energy

Docket No.: E999/CI-15-755

Response To: MN Public Utilities Commission Information Request 1

Requestor: Andrew Twite

Date Received: December 23, 2015

Question:

What type of meter does the Company require for a customer with DG?

Response:

A typical retail customer without DG has one meter, which is the main service meter. The Company utilizes many different types of main service meters depending on factors such as size of service, voltage and amps.

In the majority of locations, two meters are required for a DG application: a bi-directional meter and a production meter. The bi-directional meter is considered the main meter used for DG customer billing purposes. The production meter measures all energy that is generated prior to any loads being served. Currently, Section 9 of our Minnesota Electric Rate Book includes a production meter requirement for all Solar*Rewards customers and Solar*Rewards Community facilities. For compliance reporting purposes, production meters are also installed on Made in Minnesota and Renewable Development Fund DG projects where total system production is recorded for various purposes, including Renewable Energy Credit (REC) reporting. A production meter would also be required for DG customers who are on a standby service tariff. Our Section 10 tariff, on sheet 149, also notes the general requirement for two meters for Generation Systems that sell power and are greater than 40kW in size.

In some cases, we have utilized one main service meter for a customer with DG, which would be a bi-directional meter capable of recording energy flow in each direction and allow us to determine net usage for billing purposes. In these situations, the Company must remove the main service meter and install a replacement that has been programmed to provide the meter functionality required by the customer with on-site DG.

For further information about the type of meters used in conjunction with a DG system, please see our response to Information Requests MPUC-002 and 003.

We note that the Company plans to submit a Petition in the coming weeks to implement the Commission adopted final rules in the State Register (40 SR 348-352) regarding distributed generation. In the Petition, the Company plans to propose a requirement that all new installations of DG systems include the installation and use of a production meter.

Preparer: James Catalano/ Holly Hinman

Title: Senior Analyst/ Regulatory Policy Specialist

Department: Metering Support/Regulatory Affairs

Telephone: 612-330-4461/612-330-5941

Date: February 5, 2016

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Xcel Energy

Docket No.: E999/CI-15-755

Response To: MN Public Utilities Commission Information Request 2

Requestor: Andrew Twite

Date Received: December 23, 2015

Question:

Relative to the Company's standard meter, what additional functionality is provided by the meter required for a customer with a DG?

Response:

We understand the term "standard meter" to mean a one-way meter which is used where the customer receives only standard electric service and no DG system. The Company uses several different types of "standard" meters.

A DG system by necessity requires a meter to record and report energy flow in each direction (bi-directional). To accommodate more complicated billing rates, an interval data recording bi-directional meter is necessary. While a standard meter can be reprogramed to function as a bi-directional meter, a standard meter does not have interval data recording capability. A meter with interval data recording capability collects meter information (kWh and kVar delivered and received) at a predetermined frequency, typically every 15 minutes.

As noted in our Section 10 tariff, at Sheets 148-150, there is a general requirement that a production meter for a DG greater than 250 kW be capable of telemetry to measure and communicate real-time data. Also, as noted in Section 10, Sheet 149, a customer with a DG system greater than 40 kW that sells power generally must have a production meter to record the total peak load requirements of the service.

For further information regarding DG meter functionality, please see our response to Information Request MPUC-003.

Preparer: James Catalano
Title: Senior Analyst
Department: Metering Support
Telephone: 612-330-4461
Date: February 5, 2016

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Xcel Energy

Docket No.: E999/CI-15-755

Response To: MN Public Utilities Commission Information Request 3

Requestor: Andrew Twite

Date Received: December 23, 2015

Question:

Please provide an itemized account of the costs included in the calculation of the Company's additional monthly fee. Please include, at a minimum:

- a.) the per-meter cost of the meter required for a customer with DG;
- b.) the per-meter cost of the Company's standard meter;
- c.) the per-meter operations and maintenance costs of the meter required for a customer with DG;
- d.) the per-meter operations and maintenance costs of the Company's standard meter;
- e.) the per-meter administrative costs of the meter required for a customer with DG; and
- f.) the per-meter administrative costs of the Company's standard meter.

Response:

The meter cost required for a customer with DG is highly dependent on voltage, amps, and DG size. It also depends on what existing facilities are in place on the customer's premise. For example, the metering required for a 1 MW solar garden compared to the metering required for a 2 kW solar PV rooftop system at a customer site will likely require different equipment. Annually the Company purchases various quantities and types of meters from suppliers according to field replacement needs, inventory level and optimal pricing. Similar to DG installation, the standard meter also varies according to customer class and load. The cost of the installed meter ranges from about \$93 for a single phase watt-hour solid-state meter for residential customer class to about \$556 for a three phase Time of Day (TOD) kW/kWh meter for C&I customer class application.

A further breakdown of installed meter costs is provided below and summarized in Attachment A.

a) Metering for DG Installations <40 kW

- Main meter: In the majority of locations, the Company uses an industry standard Form 2s bi-directional non-demand meter. This meter has an installed cost of about \$93. This meter replaces the existing standard meter at the customer's location. While the base meter is the same as a meter used for a new residential customer, the Company must remove it and install a replacement at a cost of about \$36 that has been programmed at an additional cost of about \$22 in order to provide the meter functionality required by the customer with on-site DG.
- Production meter: In the majority of locations, the Company uses an industry standard Form 2s one-directional, non-demand meter. This meter has an installed cost of about \$93.

Metering for DG Installations Between 40 kW – 250 kW

- Main Meter: In the majority of locations, the Company uses an industry standard Form 16s CL200 amp/CL320 amp bi-directional recorder. This meter provides a recording and load research profile (data log) with bi-directional module capability and has an installed cost of \$347/\$354. While the base meter is the same as a meter used for a new residential customer, the Company must remove it and install a replacement at a cost of about \$36 that has been programmed at an additional cost of about \$22 in order to provide the meter functionality required by the customer with on-site DG.
- Production Meter: In the majority of cases, the Company uses an industry standard Form 16s CL200 amp/CL320 amp detented recorder. Detented meters measure flow in only one direction. This meter provides a recording and load research profile (data log) with bi-directional module capability and has an installed cost of about \$347/\$354 including labor.

Metering for DG Installation >250 kW

• Main Meter: In the majority of cases, the Company uses an industry standard Form 9S bi-directional recorder. This meter provides a recording and load research profile (data log) with bi-directional module capability and has an installed cost of about \$557 including labor. While the base meter is the same as a meter used for a new residential customer, the Company must remove it

and install a replacement at a cost of about \$36 that has been programmed at an additional cost of about \$22 in order to provide the meter functionality required by the customer with on-site DG.

Production Meter: In the majority of cases, the Company would use the standard Form 9S bi-directional meter as a production meter, in addition to the Form 9s main meter. Per Section 10, telemetry capability will also need to be installed which would be an additional expenses and assessed as part of the installation.

b) Metering for non-DG Customer <40 kW

• Standard/Main Meter: In the majority of locations, the Company uses an industry standard Form 2s bi-directional non-demand meter. This meter has an installed cost of about \$93.

Metering for a non-DG Customer Between 40 kW – 250 kW

• Standard/Main Meter: In the majority of locations, the Company uses an industry standard Form 16s CL200 amp/CL320 amp bi-directional recorder. This meter provides a recording and load research profile (data log) with bi-directional module capability at an installed cost of about \$347/\$354 including labor.

Metering for a non-DG Customer >250 kW

• Standard/Main Meter: In the majority of locations, the Company typically uses an industry standard Form 9S bi-directional recorder. This meter provides a recording and load research profile (data log) with two-way module capability and has an installed cost of about \$557 including labor.

c) See response in part e.

The Company does not track DG per meter costs based on the specific categories ("O&M" and "administrative") used in part c. and part d. of this information request. Instead, the Company tracks costs using the categories of Customer Accounting and Customer Assistance. The Customer Accounting category includes FERC accounts 901 – 904 (supervision, meter reading, customer records, collection expense.) The Customer Assistance category tracks with FERC account 908 and covers the customer support activities provided by the Company's call center.

d) See response in part f.

The Company does not track DG per meter costs based on the specific categories ("O&M" and "administrative") used in part c. and part d. of this information request. Instead, the Company tracks costs using the categories of Customer Accounting and Customer Assistance. The Customer Accounting category includes FERC accounts 901 – 904 (supervision, meter reading, customer records, collection expense.) The Customer Assistance category tracks with FERC account 908 and covers the customer support activities provided by the Company's call center.

e) Per meter costs are based on the allocation of Customer Accounting and Customer Assistance expenses divided by number customers. These costs are similar for DG customers on a per meter basis; however, DG customers typically have two meters.

Please see Attachment A for non-DG and DG metering costs.

Currently, we do not track all costs directly associated with providing service to DG customers. As DG continues to grow, we expect to improve our cost identification and recovery efforts.

f) Per meter costs are based on the allocation of Customer Accounting and Customer Assistance expenses divided by number customers. These costs are similar for DG customers on a per meter basis; however, DG customers typically have two meters.

Please see Attachment A for non-DG and DG metering costs.

Preparer: James Catalano/Nick Paluck Title: Senior Analyst/Rate Consultant

Department: Metering Support/Regulatory Affairs

Telephone: 612-330-4461/612-330-2905

Date: February 5, 2016

Typical Service Metering and Customer Accounting & Assistance Costs (Non-DG Customer) 1.

(Annual costs per customer unless otherwise noted)

		Resid	lential	Smal	I C&I	Larg	e C&I
Line	Description	Single Phase	Three Phase	Single Phase	Three Phase	Single Phase	Three Phase
Туріса	I Metering Cost (Initial Upfront Costs)						
1	Installed Cost of Service Billing Meter	93.16	354.24	354.24	556.96	354.24	556.96
2	Carrying Charge	13.88%	13.88%	13.88%	13.88%	13.88%	13.88%
3	Annualized Service Billing Meter Cost (1) x (2)	\$12.93	\$49.18	\$49.18	\$77.32	\$49.18	\$77.32
Custor	ner Accounting and Assistance 2.						
4	Supervision -FERC 901	\$0.09	\$0.09	\$0.14	\$0.14	\$0.41	\$0.41
5	Meter Reading - FERC 902	\$11.25	\$11.25	\$18.78	\$18.78	\$53.48	\$53.48
6	Customer Records - FERC 903	\$16.14	\$16.14	\$26.96	\$26.96	\$76.77	\$76.77
7	Collection Expense - FERC 904	\$8.11	\$8.11	\$13.54	\$13.54	\$38.56	\$38.56
8	Customer Assistance (Cust. Related) - FERC 908	\$0.79	\$0.79	\$0.79	\$0.79	\$0.79	\$0.79
9	Total Customer Accounting & Assistance Cost (4+5+6+7+8)	\$36.38	\$36.38	\$60.21	\$60.21	\$170.01	\$170.01
10	Total Cost (3)+(9)	\$49.31	\$85.55	\$109.39	\$137.54	\$219.19	\$247.33

^{1.} The costs above do not include all customer-related costs.

^{2.} Based on 2015TY costs and customer counts approved in Docket E002/GR-13-868

Typical Service Metering and Customer Accounting & Assistance Costs (DG Cusomter) 1.

(Annual costs per customer unless otherwise noted)

		A50 Rat	e Code	A51 Ra	te Code	A52 Ra	te Code
		Net Energy B	illing Service		Sales Billing vice	Time of Day Pu	rchase Service
Line	Description	Single Phase	Three Phase	Single Phase	Three Phase	Single Phase	Three Phase
Typic	eal Metering Cost (Initial Upfront Costs)						
1	Production Meter	93.16	354.24	354.24	556.96	354.24	556.96
2	Service Meter Bi-directional Programming	22.34	22.34	22.34	22.34	22.34	22.34
3	Installation of Bi-directional Service Meter	36.31	36.31	36.31	36.31	36.31	36.31
4	Incremental Meter Costs (1+2+3)	\$151.81	\$412.89	\$412.89	\$615.61	\$412.89	\$615.61
5	Carrying Charge	13.88%	13.88%	13.88%	13.88%	13.88%	13.88%
6	Annualized Incremental Metering Cost (4) x (5)	\$21.08	\$57.32	\$57.32	\$85.46	\$57.32	\$85.46
7	Typical Annualized Service Meter Cost	\$12.93	\$49.18	\$49.18	\$77.32	\$49.18	\$77.32
8	Typical Metering Cost for a Customer with DG (6)+(7)	\$34.01	\$106.50	\$106.50	\$162.79	\$106.50	\$162.79
Cust	omer Accounting and Assistance 2.						
9	Supervision - FERC 901	\$0.09	\$0.09	\$0.14	\$0.14	\$0.41	\$0.41
10	Meter Reading - FERC 902	\$11.25	\$11.25	\$18.78	\$18.78	\$53.48	\$53.48
11	Customer Records - FERC 903	\$16.14	\$16.14	\$26.96	\$26.96	\$76.77	\$76.77
12	Customer Assistance (Cust. Related) - FERC 908	\$0.79	\$0.79	\$0.79	\$0.79	\$0.79	\$0.79
13	Customer Accounting & Assistance (Prod. Meter) (9+10+11+12)	\$28.27	\$28.27	\$46.68	\$46.68	\$131.46	\$131.46
14	Customer Accounting & Assistance (From Service Metering Analysis)	\$36.38	\$36.38	\$60.21	\$60.21	\$170.01	\$170.01
15	Total Customer Accounting & Assistance (13)+(14)	\$64.65	\$64.65	\$106.89	\$106.89	\$301.47	\$301.47
16	Total Cost for Customers with DG (8)+(15)	\$98.65	\$171.14	\$213.39	\$269.68	\$407.97	\$464.26
Incre	mental Cost						
17	Total Cost for Customers with DG (16)	\$98.65	\$171.14	\$213.39	\$269.68	\$407.97	\$464.26
18	Total Cost for Typical Service Customer (From Service Metering Analysis)	\$49.31	\$85.55	\$109.39	\$137.54	\$219.19	\$247.33
19	Incremental DG Customer Cost (17) - (18)	\$49.34	\$85.59	\$104.00	\$132.14	\$188.78	\$216.92
Mont	hly Cost (19)/12	\$4.11	\$7.13	\$8.67	\$11.01	\$15.73	\$18.08
20	Current Monthly Cogeneration Meter Charge	\$3.15	\$6.40	\$5.50	\$8.00	\$5.50	\$8.00

^{1.} The costs above do not include all customer-related costs.

^{2.} Based on 2015TY costs and customer counts approved in Docket E002/GR-13-868

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Xcel Energy

Docket No.: E999/CI-15-755

Response To: MN Public Utilities Commission Information Request 4

Requestor: Andrew Twite

Date Received: December 23, 2015

Question:

For those customers currently being charged the additional monthly fee, what, if any, meter-related costs were paid by the customer during the interconnection process?

Response:

It is our understanding that the "additional monthly fee" in this question refers to the metering charges as set forth in the A50, A51 and A52 rate codes in our Section 9 tariff. We would be pleased to answer further questions if this was not the intent of this request.

The Section 9 tariff notes that the metering charge assumes common use of all Company facilities, up to the metering point, for both receipt and delivery of energy. Any additional facilities required by the Company to accommodate the small qualifying facility will require the customer to pay a net interconnection charge in advance. (Section 9, Sheet 8). As part of the interconnection process, customers pay an engineering study fee as identified in our Section 10 tariff (1st Revised Sheet 93). The engineering study fee covers the interconnection analysis for the project including review of the metering design.

In typical net-metering projects below 40 kW, there are no upfront metering charges for equipment or installation outside of the engineering study fee. Rather, these costs are covered by the monthly metering charge. In cases where a unique situation may arise, the tariff allows the Company to recover the cost. Following a review of DG installations for rate codes A50, A51 and A52 over the past years, we have not identified any instances where additional cost recovery in addition to monthly metering fees and engineering study fees was necessary.

Preparer: John Wold

Title: Sr. Product Manager

Department: Customer Solutions

Telephone: 612.337.2120

Date: February 5, 2016

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Xcel Energy

Docket No.: E999/CI-15-755

Response To: MN Public Utilities Commission Information Request 5

Requestor: Andrew Twite

Date Received: December 23, 2015

Question:

Please provide all rate and tariff sheets and all written policies and procedures applicable to cogeneration and small power production facilities and customers that were in effect within the last 12 months, including those currently in effect.

Response:

Please see the following attachments for the rates, tariff sheets and written policies/procedures that were in effect in 2015 and applicable to cogeneration and small power production facilities/customers.

Attachment A.1. Cogeneration and Small Power Production Tariff Sheets (Currently in Effect)

Attachment A. 2. Cogeneration and Small Power Production Tariff Sheets (Effective On or Before January 1, 2015, But No Longer In Effect)

Attachment B.1. Standard for Electric Installation and Use (Blue Book) (Effective May 15, 2015 – Present)

Attachment B.2. Standard for Electric Installation and Use (Blue Book) (Effective April 15, 2015 – May 14, 2015)

Attachment B. 2. Standard for Electric Installation and Use (Blue Book) (Effective March 1, 2014 – April 14, 2015)

Attachment C.1. Distributed Engineering Study Requirements

(Effective July 20, 2015 - Present)

Attachment C.2. Distributed Engineering Study Requirements

(Effective August 28, 2014 – July 19, 2015)

Attachment D. NSPM Network Connected PV Recommended Practice

(Effective June 17, 2014)

On January 4, 2016, the Company submitted its Annual Cogeneration and Small Power Production petition for new A50, A51 and A52 payment rates; however, those rates are not yet in effect.

We note that the Company plans to submit a Petition in the coming weeks to implement the Commission adopted final rules in the State Register (40 SR 348-352) regarding distributed generation. This Petition will include further revisions to the Company's A50, A51 and A52 tariffs.

Preparer: John Wold

Title: Sr. Product Manager Department: Customer Solutions

Telephone: 612-337-2120

Date: February 5, 2016

Northern States Power Company, a Minnesota corporation Minneapolis, Minnesota 55401

MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2

COGENERATION
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Date Filed: 12-18-15 By: Christopher B. Clark Effective Date: 12-18-15

President, Northern States Power Company, a Minnesota corporation

Docket No. E002/M-13-867 Order Date: 12-15-15

Docket No. E999/CI-15-755 Information Request MPUC-005 Attachment A.1., Pages 2 of 121

Northern States Power Company, a Minnesota corporation and wholly owned subsidiary of Xcel Energy Inc.

Minneapolis, Minnesota 55401

MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2

TECHNICAL AND SPECIAL TERMS FOR COGENERATION AND SMALL POWER PRODUCTION

Section No. 9
Original Sheet No. 1

QUALIFYING FACILITY (QF). A qualifying facility is a cogeneration or small power production facility which satisfies the conditions in 18 Code of Federal Regulations, Section 292.101(b)(1) (1981), as applied when interpreted in accordance with the amendments to 18 Code of Federal Regulations, Sections 292.201-292.207 adopted through 46 Federal Register 33025-33027 (1981).

SMALL QUALIFYING FACILITY (SQF). A small qualifying facility is a qualifying facility with certified capacity of 100 kW or less.

METERING CHARGE. The monthly metering charge recovers the cost and installation of the additional meter and the associated billing, operating, and maintenance expenses.

NET ENERGY BILLING SERVICE. Customers electing Net Energy Billing Service shall be billed under the appropriate retail rate only for that amount of energy used by customer which exceeds the energy delivered by the SQF to Company at the same site during the same billing period. Any energy delivered by the SQF to Company in excess of that received by SQF from Company during the same billing period at the same site shall be compensated according to Net Energy Billing Service.

FIRM POWER. Firm power is energy delivered by a QF to the utility with at least 65% on peak capacity factor in the billing period. The capacity factor is based upon a QF's maximum on peak metered capacity delivered to the utility during the billing period.

NET INTERCONNECTION CHARGE. The net interconnection charge will be assessed on a non-refundable basis to recover the Company's reasonable costs of connection, switching, transmission, distribution, safety provisions, and administrative costs that are directly related to installing and maintaining the physical facilities necessary to permit interconnected operations with a QF in excess of the facilities and expenses recovered in the monthly metering charge.

ON PEAK PERIOD. The on peak period contains all hours between 9:00 a.m. and 9:00 p.m., Monday through Friday, except the following holidays: New Year's Day, Good Friday, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, and Christmas Day. When a designated holiday occurs on Saturday, the preceding Friday will be designated a holiday. When a designated holiday occurs on Sunday, the following Monday will be designated a holiday.

OFF PEAK PERIOD. The off peak period contains all other hours not included in the on peak period. Definition of on peak and off peak period is subject to change with change in Company's system operating characteristics.

Date Filed: 11-02-05 By: Cynthia L. Lesher Effective Date: 02-01-07

President and CEO of Northern States Power Company

Docket No. E002/GR-05-1428 Order Date: 09-01-06

Section No.

2

Northern States Power Company, a Minnesota corporation Minneapolis, Minnesota 55401

MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2

NET ENERGY BILLING SERVICE RATE CODE A50 19th Revised Sheet No.

AVAILABILITY

Available to any small qualifying facility (SQF) of less than 40 kW capacity who receives non-time of day retail electric service from Company and offsets energy delivered by Company.

RATE

Metering Charge per Month

Single Phase \$3.15 Three Phase \$6.40

Payment per kWh for Energy Delivered to Company in	Oct-May	Jun-Sep
Excess of Energy Used		
With Retail Non-Demand Metered Service	\$0.11223	\$0.11643
With Retail Demand Metered Service	\$0.06700	\$0.06622

TERMS AND CONDITIONS OF SERVICE

Energy used by customer in excess of energy delivered by the SQF at the same site during the same billing period shall be billed in accordance with the appropriate non-time of day retail electric rate.

For demand metered General Service customers, the entire kW demand supplied by the Company at the same site during the same billing period shall be billed to the customer according to the appropriate general service demand charge rate.

- Interconnection charges will be assessed by the Company on an individual basis for all costs associated with addition to or modification of Company facilities to accommodate the SQF. The net interconnection charge is the responsibility of the SQF.
- The voltage and phase of customer's generator must be consistent with existing service and approved by the Company.
- The customer must maintain a power factor of the generator as close to unity as is consistent with Company operating standards.

Date Filed: 03-30-15 By: Christopher B. Clark 06-01-15 Effective Date:

President, Northern States Power Company, a Minnesota corporation

Order Date: Not Applicable Docket No. E999/PR-15-9

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Northern States Power Company, a Minnesota corporation Minneapolis, Minnesota 55401

MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2

PURCHASE AND SALE BILLING SERVICE RATE CODE A51

Section No.

19th Revised Sheet No. 3

AVAILABILITY

Available to any small qualifying facility (SQF) of less than 40 kW capacity who receives non-time of day retail electric service.

RATE

Metering Charge per Month

Single Phase \$5.50 Three Phase \$8.00

Payment Schedule for Energy Delivered to Company
Energy Payment per kWh
Capacity Payment for Firm Power per kWh

Solution

Sol

DETERMINATION OF FIRM POWER

The SQF will have supplied firm power if during the billing period an on peak capacity factor of at least 65% was achieved. The calculation of the on peak capacity factor will be as follows: the average on peak period metered capacity delivered to the Company for the on peak period of the billing period divided by the greatest 15 minute metered capacity delivered for the on peak period of the same billing period expressed in percent and rounded to the nearest whole percent. If the percent calculated is 65 or greater, capacity payment will be made. If the percent calculated is less than 65, capacity payment will not be made.

TERMS AND CONDITIONS OF SERVICE

- Interconnection charges will be assessed by the Company on an individual basis for all costs associated with addition to or modification of Company facilities to accommodate the SQF. The net interconnection charge is the responsibility of the SQF.
- 2. The voltage and phase of customer's generator must be consistent with existing service and approved by the Company.
- 3. The customer must maintain a power factor of the generator as close to unity as is consistent with Company operating standards.

Date Filed: 01-02-15 By: Christopher B. Clark Effective Date: 03-01-15

President, Northern States Power Company, a Minnesota corporation

Docket No. E999/PR-15-9 Order Date: Not Applicable

Northern States Power Company, a Minnesota corporation Minneapolis, Minnesota 55401

MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2

TIME OF DAY PURCHASE SERVICE RATE CODE A52

Section No. 9

18th Revised Sheet No. 4

AVAILABILITY

Available to any qualifying facility (QF) of 100 kW capacity or less, and available to QF's with capacity of more than 100 kW if firm power is provided.

RATE

Metering Charge per Month

Single Phase	\$5.50
Three Phase	\$8.00

Payment Schedule for Energy Delivered to Company	Oct-May	<u>Jun-Sep</u>	
On Peak Energy Payment per kWh	\$0.04162	\$0.05281	R
Off Peak Energy Payment per kWh	\$0.02798	\$0.02500	R
Capacity Payment for Firm Power per On Peak kWh	\$0.00815	\$0.04315	R

DETERMINATION OF FIRM POWER

The QF will have supplied firm power if during the billing period an on peak capacity factor of at least 65% was achieved. The calculation of the on peak capacity factor will be as follows: the average on peak period metered capacity delivered to the Company for the on peak period of the billing period divided by the greatest 15 minute metered capacity delivered for the on peak period of the same billing period expressed in percent and rounded to the nearest whole percent. If the percent calculated is 65 or greater, capacity payment will be made. If the percent calculated is less than 65, capacity payment will not be made.

TERMS AND CONDITIONS OF SERVICE

- 1. Electric service provided by Company to customer at the same site shall be billed in accordance with the appropriate time of day retail electric rate.
- Interconnection charges will be assessed by the Company on an individual basis for all costs associated with addition to or modification of Company facilities to accommodate the QF. The net interconnection charge is the responsibility of the QF.
- 3. The voltage and phase of customer's generator must be consistent with existing service and approved by the Company.
- 4. The customer must maintain a power factor of the generator as close to unity as is consistent with Company operating standards.

Date Filed: 01-02-15 By: Christopher B. Clark Effective Date: 03-01-15

President, Northern States Power Company, a Minnesota corporation

Docket No. E999/PR-15-9 Order Date: Not Applicable

Northern States Power Company, a Minnesota corporation Minneapolis, Minnesota 55401

MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2

RULES AND REGULATIONS APPLICABLE TO COGENERATION AND SMALL POWER PRODUCTION FACILITIES

Section No. 9 1st Revised Sheet No. 5

FACILITY LOCATION AND COMPLIANCE

Customer agrees to locate the qualifying facility (QF) so as to not cause a hazard to the Company distribution system. Wind generators may only be installed at Company approved locations that preclude any possibility of the generation system contacting any Company facilities if the system accidentally topples over. The total tower height, including the propeller when in the highest position, must be used in the determination. Customer agrees that the installation shall be in compliance with all applicable electric codes and the QF will be operated only after the installation has been inspected and approved by the appropriate authorities. Customer understands and agrees that Company approval of the proposed or installed QF does not preclude the necessity of customer obtaining all required permits, building and zoning variations, and applicable inspections.

TECHNICAL INTERCONNECTION REQUIREMENTS

Customer's QF shall comply with the "Distributed Generation Interconnection Requirements," which are described in the "Distributed Generation Standard Interconnection and Power Purchase Tariff," Section 10, of this Rate Book. These interconnection requirements are the technical standards authorized by the Minnesota Public Utilities Commission and are consistent with the Commission's Rules, Chapter 7835 on Cogeneration and Small Power Production.

CONNECTION AND SAFETY DISCONNECT SWITCH

Company agrees to permit customer to connect the proposed QF to the Company distribution system on the load side of customer's meter. The connection must be made through a customer provided, customer installed, National Electrical Manufacturer's Association approved, manual safety disconnect switch of adequate ampere capacity. The switch shall not open the neutral when the switch is open. This switch shall have provisions for being padlocked in the open position with a standard Company padlock. Customer agrees to locate the switch in a position accessible to Company personnel, and further agrees that the switch may be operated by Company personnel at all times that such operation is deemed necessary by Company for safety and operating reasons. QF's using line commutated synchronous inverters shall have the inverters connected on the load side (QF side) of the safety disconnect switch.

DISTRIBUTION SYSTEM ADEQUACY

The proposed QF installation will be reviewed by Company to determine adequacy of the associated Company distribution system components. The customer agrees to reimburse Company for the addition, modification, or replacement of any distribution system components made necessary by customer's QF installation.

INTERFERENCE

Customer agrees to disconnect the QF from the Company distribution system or to reimburse Company for cost of necessary system modifications if operation of the QF causes radio, television, or electrical service interference to other customers, or interference with the operation of Company's system.

SPECIAL METERING

Customer agrees to allow Company at Company's expense to install necessary special metering and measuring equipment at the above address to provide information on the effect of the QF.

(Continued on Sheet No. 9-6)

Date Filed: 11-03-10 By: Judy M. Poferl Effective Date: 09-01-12

President and CEO of Northern States Power Company, a Minnesota corporation

Docket No. E002/GR-10-971 Order Date: 05-14-12

Docket No. E999/CI-15-755 Information Request MPUC-005 Attachment A.1., Pages 7 of 121

Northern States Power Company, a Minnesota corporation and wholly owned subsidiary of Xcel Energy Inc.

Minneapolis, Minnesota 55401

MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2

RULES AND REGULATIONS APPLICABLE TO COGENERATION AND SMALL POWER PRODUCTION FACILITIES (Continued)

Section No. 9
Original Sheet No. 6

PROVISION TO SELECT METERING

Customer to choose one of the following:

Detenting of Meter for Parallel Operation With No Sale to Company

Because customer does not intend to sell energy to Company, the billing of customer's electrical consumption provided by Company will be on the available retail rates and the electric meter measuring this consumption will at this time be detented to allow measurement only of energy flow into the customer's premises. Customer will provide all meter socket replacement and rewiring required to accommodate a detented meter.

Metering for Parallel Operation With Sale or Wheelage of Excess or All or a Part of Customer Produced Energy

Two meters will be installed in series. One meter will record energy delivered by Company. The second meter will record energy delivered by customer. Customer will provide all meter socket replacement and rewiring required to install these meters.

REVENUE LOSS

Company shall not be liable for revenue lost by customer due to Company's inability to purchase or wheel customer generated energy for any reason not within Company's reasonable control.

LIGHTNING PROTECTION

Customer agrees to effectively ground the QF installation and to provide and install adequate surge arrester protection to prevent lightning damage to any Company distribution system equipment.

BACKFEED PREVENTION

Customer agrees to supply Company a schematic diagram and associated equipment list for the QF control circuitry to enable Company to determine if the QF safety equipment provides a level of safety consistent with the safety level required by Company in its electrical equipment. If further analysis of the proposed QF by Company reveals that it is capable of backfeed into the Company lines during distribution outages, customer shall immediately disconnect the QF from Company distribution system and shall only reconnect the QF through a customer provided, Company approved, interconnect device that will prevent backfeed.

ADDITIONAL SAFETY DEVICES

Customer understands and agrees that as additional QF's are connected to the Company distribution system, Company may require customer to install additional safety devices at customer expense.

(Continued on Sheet No. 9-7)

Date Filed: 11-02-05 By: Cynthia L. Lesher Effective Date: 02-01-07

President and CEO of Northern States Power Company

Docket No. E999/CI-15-755 Information Request MPUC-005 Attachment A.1., Pages 8 of 121

Northern States Power Company, a Minnesota corporation and wholly owned subsidiary of Xcel Energy Inc.

Minneapolis, Minnesota 55401

MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2

RULES AND REGULATIONS APPLICABLE TO COGENERATION AND SMALL POWER PRODUCTION FACILITIES (Continued)

Section No. 9 Original Sheet No. 7

KIND (OF	CUSTOMER	SERVICE	SUPPLIED	TO	COMPANY
--------	----	----------	---------	----------	----	---------

Customer agrees to supply and Company agrees to accept electric service in the form of	phase
wire, alternating current at a nominal frequency of 60 hertz, and at a nominal voltage of	
located at	

PARALLEL OPERATION

Customer shall provide the necessary equipment as approved by Company to operate the QF in parallel with Company's distribution system. The QF shall be equipped to instantaneously discontinue all output to and energization of Company's distribution system under the following conditions:

- 1. Deenergized Company system,
- 2. Sustained line faults on Company system, and
- Faults on customer's system.

Customer shall consult with Company regarding these minimum requirements, additional protection recommended, and proper operation of customer's generating system. Since the power factor and the voltage at which Company's system and customer's system are operated will vary, each party agrees to operate his system at a power factor as near unity as possible in such manner as to absorb his share of the reactive power, and voltage as conducive to the best operating standards.

INSURANCE

The customer shall maintain during the term of this agreement liability insurance which insures customer against all claims for property damage and for personal injury or death arising out of, resulting from, or in any manner connected with the installation, operation, and maintenance of the QF. The amount of such insurance coverage shall be at least \$300,000 per occurrence. Customer shall furnish a certificate from its insurance carrier showing that it has complied with the provisions of this section and providing that the insurance policy will not be changed or canceled during its term without written 90 day notice to Company.

SPECIAL LOSS FACTOR ADJUSTMENT

If the SQF is located at a site outside Company service territory and energy is delivered to Company through facilities owned by another utility, energy payments will be adjusted downward reflecting losses occurring between point of generation and point of receipt by Company.

(Continued on Sheet No. 9-8)

Date Filed: 11-02-05 By: Cynthia L. Lesher Effective Date: 02-01-07

President and CEO of Northern States Power Company

Docket No. E999/CI-15-755 Information Request MPUC-005 Attachment A.1., Pages 9 of 121

Northern States Power Company, a Minnesota corporation and wholly owned subsidiary of Xcel Energy Inc.

Minneapolis, Minnesota 55401

MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2

RULES AND REGULATIONS APPLICABLE TO COGENERATION AND SMALL POWER PRODUCTION FACILITIES (Continued)

Section No. 9 Original Sheet No. 8

SPECIAL INTERCONNECTION FACILITIES

The metering charge assumes common use of all Company facilities, up to the metering point, for both receipt and delivery of energy. Any additional facilities required by Company to accommodate the SQF will require SQF to pay a net interconnection charge in advance.

METERING REQUIREMENTS

The SQF shall make provision for on-site metering. All energy delivered and sold to Company shall be separately metered. On-site use of SQF output shall be unmetered for purposes of compensation. SQF shall cooperate with and allow Company to install and have access to on-site monitoring equipment for purposes of gathering SQF performance data.

Date Filed: 11-02-05 By: Cynthia L. Lesher Effective Date: 02-01-07

President and CEO of Northern States Power Company

Docket No. E999/CI-15-755 Information Request MPUC-005 Attachment A.1., Pages 10 of 121

Northern States Power Company, a Minnesota corporation and wholly owned subsidiary of Xcel Energy Inc.

Minneapolis, Minnesota 55401

MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2

STANDARD CONTRACT AND AGREEMENT FORMS

Section No. 9 Original Sheet No. 9

Listed below are the titles of standard contract or service agreement forms Company requires of customers for cogeneration and small power production purchase services. Copies of the forms are shown on the following sheets in the order listed.

1. Uniform Statewide Contract for Cogeneration and Small Power Production Facilities

Date Filed: -11-02-05 Cynthia L. Lesher Effective Date: 02-01-07

President and CEO of Northern States Power Company

Northern States Power Company, a Minnesota corporation and wholly owned subsidiary of Xcel Energy Inc. Minneapolis, Minnesota 55401 MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2

UNIFORM STATEWIDE CONTRACT FOR COGENERATION AND SMALL POWER PRODUCTION FACILITIES

Section No. 9 1st Revised Sheet No. 10

Order Date:

09-01-06

Τ Т

UNIFORM STATEWIDE CONTRACT FOR

COGENERATION AND SMALL POWER PRODUCTION FACILITIES				
THIS CONTRACT is entered into,, by Northern States Power Company, a Minnesota corporation and wholly owned subsidiary of Xcel Energy Inc., (hereafter called "Utility") and (hereafter called "QF").				
RECITALS				
The QF has installed electric generating facilities, consisting of (Description of facilities), rated at less than 40 kilowatts of electricity, on property located at				
The QF is prepared to generate electricity in parallel with the Utility.				
The QF's electric generating facilities meet the requirements of the Minnesota Public Utilities Commission (hereafter called "Commission") rules on Cogeneration and Small Power Production and any technical standards for interconnection the Utility has established that are authorized by those rules.				
The Utility is obligated under federal and Minnesota law to interconnect with the QF and to purchase electricity offered for sale by the QF.				
A contract between the QF and the Utility is required by the Commission's rules.				
AGREEMENTS				
The QF and the Utility agree:				
 The Utility will sell electricity to the QF under the rate schedule in force for the class of customer to which the QF belongs. 				
2. The Utility will buy electricity from the QF under the current rate schedule filed with the Commission. The QF has elected the rate schedule category hereinafter indicated (select one):				
 a. Net energy billing rate under part 7835.3300. b. Simultaneous purchase and sale billing rate under part 7835.3400. c. Time of day purchase rates under part 7835.3500. 				
A copy of the presently filed rate schedule is attached to this contract.				
(Continued on Sheet No. 9-11)				
Date Filed: 11-02-05 By: Cynthia L. Lesher Effective Date: 02-01-				

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E002/GR-05-1428

Docket No.

Docket No. E999/CI-15-755 Information Request MPUC-005 Attachment A.1., Pages 12 of 121

Northern States Power Company, a Minnesota corporation and wholly owned subsidiary of Xcel Energy Inc.

Minneapolis, Minnesota 55401

MINNESOTAELECTRIC RATE BOOK - MPUC NO. 2

UNIFORM STATEWIDE CONTRACT FOR COGENERATION AND SMALL POWER PRODUCTION FACILITIES (Continued)

Section No. 9
Original Sheet No. 11

3. The rates for sales and purchases of electricity may change over the time this contract is in force, due actions of the Utility or of the Commission, and the QF and the Utility agree that sales and purchases will be made under the rates in effect each month during the time this contract is in force.	
1. The Utility will compute the charges and payments for purchases and sales for each billing period. Any credit to the QF will be made under one of the following options as chosen by the QF.	/ net
a. Credit to the QF's account with the Utility.b. Paid by check to the QF within 15 days of the billing date.	
The QF must operate its electric generating facilities within any rules, regulations, and policies adopted the Utility not prohibited by the Commission's rules on Cogeneration and Small Power Production which professonable technical connection and operating specifications for the QF (Northern States Power Company's Rules and Regulations Applicable to Cogeneration and Small Power Production Facilities are attached). The agreement does not waive the QF's right to bring a dispute before the Commission as authorized by Minnes Rules, parts 7835.4800, 7835.5800, and 7835.4500, and any other provision of the Commission's rules on Cogeneration and Small Power Production authorizing Commission resolution of a dispute.	vide s is
6. The Utility's rules, regulations, and policies must conform to the Commission's rules on Cogeneration Small Power Production.	and
7. The QF will operate its electric generating facilities so that they conform to the national, state, and local electric and safety codes, and will be responsible for the costs of conformance.	al
3. The QF is responsible for the actual, reasonable costs of interconnection which are estimated to be The QF will pay the Utility in this way:	
The QF will give the Utility reasonable access to its property and electric generating facilities if the configuration of those facilities does not permit disconnection or testing from the Utility's side of the interconnection. If the Utility enters the QF's property, the Utility will remain responsible for its personnel.	

(Continued on Sheet No. 9-12)

Date Filed: 11-02-05 By: Cynthia L. Lesher Effective Date: 02-01-07

President and CEO of Northern States Power Company

Docket No. E002/GR-05-1428 Order Date: 09-01-06

10. The Utility may stop providing electricity to the QF during a system emergency. The Utility will not discriminate against the QF when it stops providing electricity or when it resumes providing electricity.

Docket No. E999/CI-15-755 Information Request MPUC-005 Attachment A.1., Pages 13 of 121

Northern States Power Company, a Minnesota corporation and wholly owned subsidiary of Xcel Energy Inc.

Minneapolis, Minnesota 55401

MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2

UNIFORM STATEWIDE CONTRACT FOR COGENERATION AND SMALL POWER PRODUCTION FACILITIES (Continued)

Section No. 9
Original Sheet No. 12

FACILITIES (Continued)					
maintai	n, repair, replace, remove, investigate, or in	nspect any	when necessary for the Utility to construct, install, equipment or facilities within its electric system. icity in this way:		
interco		ating facili	sonal or property damage due to the installation, ties. The amount of insurance coverage will preater than \$300,000).		
in force		n notice to	by the QF and the Utility. This contract will remain the other that the contract is canceled. This		
shall at agency	all times be subject to all rules and orders i	issued by of this con	en the QF and the Utility except that this contract the Public Utilities Commission or other government tract. The QF and the Utility are not responsible for		
EVIDE		E EACH S	TAND AGREE TO BE BOUND BY ITS TERMS. AS SIGNED THIS CONTRACT BELOW ON THE DATE		
QF			NORTHERN STATES POWER COMPANY, a Minnesota corporation and wholly owned subsidiary of Xcel Energy Inc.		
Ву			Ву		
(Title)		_	(Title)		

Date Filed: 11-02-05 By: Cynthia L. Lesher Effective Date: 02-01-07

President and CEO of Northern States Power Company

Docket No. E999/CI-15-755 Information Request MPUC-005 Attachment A.1., Pages 14 of 121

Northern States Power Company, a Minnesota corporation Minneapolis, Minnesota 55401

MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2

SOLAR*REWARDS CUSTOMER CONTRACT (CLOSED TO NEW APPLICANTS)

Section No. 9 1st Revised Sheet No. 13

Application	ID:

SOLAR*REWARDS

CUSTOMER CONTRACT

Customer-Sited Photovoltaic (PV) Systems Greater than 0.5 kW and Less than 40 kW DC Nameplate Capacity

s Contract is made and entered into by and between Northern States Power Company, a Minnesota corporation	١,
ring a mailing address of 414 Nicollet Mall, Minneapolis, Minnesota 55401 ("Company"), and	
ether one or more, "Customer"), whose mailing address for billing and notice purposes	
, concerning electric service at the following address: (the	
rvice Address").	

1. Fact Background.

- a. Customer will be installing the electric generating facilities described in Exhibit 1 (the "PV System") and meeting the requirements stated in this Contract, with a nameplate capacity rated at greater than 0.5 kilowatts and less than 40 kilowatts direct current ("DC"), on property located at the Service Address.
- b. Customer's PV System also meets the requirements of the Minnesota Public Utilities Commission (the "Commission") Rules Chapter 7835 on Cogeneration and Small Power Production and any technical standards for interconnection the Company has established that are authorized by those Rules.
- c. Customer is prepared to generate electricity in parallel with the Company using the PV System.
- d. Customer has submitted to Company an application and paid an application fee of \$250.00, to participate in Company's Solar*Rewards program using the PV System.
- e. The Company is obligated under federal and Minnesota state law to interconnect with Customer and to purchase electricity generated by Customer through qualifying facilities and offered for sale to Company by Customer.
- f. Customer and Company enter into this Contract which sets out the terms and conditions for the purchase and sale of the electricity generated by the PV System ("Solar*Rewards Program"), and related matters.

(Continued on Sheet No. 9-14)

Date Filed: 10-31-13 By: David M. Sparby Effective Date: 07-23-14

President and CEO of Northern States Power Company, a Minnesota corporation

Docket No. E999/CI-15-755 Information Request MPUC-005 Attachment A.1., Pages 15 of 121

Northern States Power Company, a Minnesota corporation Minneapolis, Minnesota 55401

MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2

SOLAR*REWARDS CUSTOMER CONTRACT (CLOSED TO NEW APPLICANTS) (Continued)

Section No. 9 1st Revised Sheet No. 14

2. Purchases and Sales of Electric	2.	Purchases	and Sales	of E	Electricit
------------------------------------	----	-----------	-----------	------	------------

Customer	and	Company	agree:

- a. Company will sell electricity to Customer under the rate schedule in force for the class of customer to which Customer belongs.
- b. Customer agrees to supply electricity generated by the PV System in the form of ____ phase, ____ wire, alternating current at the nominal frequency of 60 hertz, and at a nominal voltage of ____.
- c. Company will buy electricity generated by the PV System from Customer under the applicable Company rate schedule filed with the Commission. Customer elects to sell electricity generated by the PV System in excess of Customer's own use under the terms of the following Company tariff:

Net Energy Billing Service, Rate Code A50
Purchase and Sale Billing Service, Rate Code A51
Time of Day Purchase Service, Rate Code A52

A copy of the currently filed elected tariff is attached as Exhibit 2. The rates, terms and conditions for sales and purchases of electricity may be changed over the time this Contract is in force, due to actions of the Company or of the Commission, and Customer and Company agree that sales and purchases will be made under the rates in effect each month during the time this Contract is in force.

d. Customer will pay a monthly metering charge under the Company tariff elected by the Customer, provided in Exhibit 2, and according to meter installation requirements in Section 5b. The monthly metering charge pays for the cost and installation of a bi-directional meter at the Service Address which measures electricity delivered by the Company to the Customer and energy received by the Company from the Customer, and the associated billing, operating and maintenance expenses. The metering charge may be changed over the time this Contract is in force, due to actions of the Company or of the Commission, and Customer and Company agree that the metering charge will be under the rates in effect each month during the time this Contract is in force.

(Continued on Sheet No. 9-15)

Date Filed: 10-31-13 By: David M. Sparby Effective Date: 07-23-14

President and CEO of Northern States Power Company, a Minnesota corporation

SOLAR*REWARDS CUSTOMER CONTRACT (CLOSED TO NEW APPLICANTS) (Continued)

Section No. 9 2nd Revised Sheet No. 15

2. Purchases and Sales of Electricity. (Continued)

- e. The Company will compute the charges and payments for purchases and sales of electricity for each billing period. If the payments for electricity generated by the PV System and sold to Company exceed the charges for electricity which the Company supplies and sells to Customer (i.e. net positive production by the PV System), the credit will accumulate on the Company's billing statement to Customer and will be paid by check to Customer within fifteen (15) days of the billing date once the accumulated credit exceeds \$25.00.
- f. Company may stop providing electricity to Customer during a system emergency, without notice. Company will give Customer prior notice by telephone or regular U.S. mail when Company is to stop providing electricity in non-emergency circumstances. The Company will not discriminate against Customer when it stops providing electricity or when it resumes providing electricity. Company may stop purchasing electricity from Customer when necessary to construct, install, maintain, repair, replace, remove, investigate or inspect any equipment or facilities within its electric system when this activity would be adversely affected if customer were supplying power to the system. Company will give Customer prior notice by telephone or regular U.S. mail letter when Company will stop purchasing electricity from Customer.

3. Ownership of Renewable Energy Credits.

Customer and Company agree:

- a. On the terms and subject to the conditions set forth in this Contract, the Customer agrees to convey to the Company and the Company will own all of the Renewable Energy Credits ("RECs"), defined in Section 5(I) below generated by the PV System at the Service Address for a term of twenty (20) years from the installation date set forth in the "Actual System Installation Information" attached to this Contract as Exhibit 1.
- b. In consideration for Customer's participation in Company's Solar*Rewards Program, Company shall make a one (1) time payment to Customer of \$1.50 per watt DC capacity that is installed, to be paid by Company to Customer in the form of a check and not as a bill credit, within thirty (30) business days of Customer's delivery to Company of (i) completed Exhibit 1, certifying installation of the PV System at the Service Address, and (ii) a certified test report verifying successful completion of testing procedures on the PV System.

4. Representations by Customer.

Customer hereby makes the following representations and warranties to Company:

- a. Customer warrants that the person signing this Contract on behalf of Customer is authorized and competent to sign this Contract and to bind Customer to the terms of this Contract.
- b. Customer receives electric service from Company at the Service Address set forth above, is the person in whose name electric service is listed at the Service Address, and is the owner of the property at the Service Address.

(Continued on Sheet No. 9-16)

Date Filed: 10-31-13 By: David M. Sparby Effective Date: 07-23-14

President and CEO of Northern States Power Company, a Minnesota corporation

SOLAR*REWARDS CUSTOMER CONTRACT (CLOSED TO NEW APPLICANTS) (Continued)

Section No. 9
3rd Revised Sheet No. 16

4. Representations by Customer. (Continued)

- c. Customer is an end-use electric consumer located within the electric service territory of Company in Minnesota whose primary business is not the generation of electricity for retail or wholesale sale from the same facility. Customer is not installing the PV System at the Service Address in connection with a business of developing or improving real estate for resale.
- d. Customer shall install a new PV System at the Service Address, which shall have at least a five (5) year warranty, and shall be installed as of the date set forth, and conform to the specifications, tilt and orientation described in Exhibit 1 as completed and delivered to Company by Customer.
- e. The PV System shall be located on the Customer's facilities at the Service Address at all times during the term of this Contract.
- f. The PV System has a minimum nameplate DC output capacity of 500 watts and a maximum capacity of less than 40 kilowatts.
- g. Customer represents that the PV System shall be sized to supply no more than one hundred twenty percent (120%) of the previous annual (12-month) consumption of electric energy by Customer at the Service Address. Customer acknowledges that Solar*Rewards Program is only available to PV Systems where the estimated annual generation, as determined by the National Renewable Energy Laboratory's PVWatts™ calculator (Version 2), is not more than 120% of the previous annual (12-month) electric energy consumption at the Service Address. If historical electric energy consumption data is not available due to new construction, the Company will calculate the estimated annual electric energy consumption.
- h. PV equipment including, but not limited to modules, inverters, etc., as described in Customer's completed Exhibit 1 shall meet eligibility requirements when listed as qualified on the Company website: www.xcelenergy.com/solar.
- i. The PV System is oriented and free of shade within the following parameters:
 - Array Azimuth (orientation) within 45 degrees of South (135-degrees to 225-degrees);
 - Panel tilt angle between 10 and 60 degrees; and
 - Array is 85 percent shade free year round or 80 percent shade free year round if the system utilized a compensating strategy.

5. Requirements for PV System Installation, Operation, and Maintenance.

Energy Audit.

a. Customer is required to conduct an Energy Audit for the building at the Service Address which hosts a PV system, at Customer's expense, in compliance with Company's Energy Audit program prior to Company's payment made as described in Section 3b, unless such audit has been completed within the past three years, or (for residential customers) the Customer's home was ENERGY STAR-certified under the Company's ENERGY STAR homes project, or (for business customers) the Customer participated in the Commercial Real Estate, Energy Design Assistance, Energy Efficient Buildings, or Recommissioning programs. Based on the results of Customer's Energy Audit and in order to participate in the Solar*Rewards Program, Customer may be required by Company to implement certain Energy Efficiency Options that the Energy Audit identifies as an effective Energy Efficiency Solution.

(Continued on Sheet No. 9-17)

Date Filed: 10-31-13 By: David M. Sparby Effective Date: 07-23-14

President and CEO of Northern States Power Company, a Minnesota corporation

SOLAR*REWARDS CUSTOMER CONTRACT (CLOSED TO NEW APPLICANTS) (Continued)

Section No. 9
1st Revised Sheet No. 17

5. Requirements for PV System Installation, Operation, and Maintenance. (Continued) Metering.

- b. Two meters are required to be installed at the Service Address. One meter is located at the main service and is a bi-directional meter that will record energy delivered to the Customer from the Company, and energy received by the Company from Customer. Installation of a bi-directional meter may not be required if the configuration of Customer's facilities allows and a previously installed bi-directional meter provides the information necessary for billing purposes. The second (Production) meter will record energy generated by the PV System only. The Company shall install, or cause to be installed, own, operate and maintain the Production meter to measure the AC production of the PV System, at the Company's expense and including the cost of the Production meter itself. Customer will provide all meter housing and socket replacement and rewiring to install both meters. Customer shall be charged monthly the metering charge described in Section 2(d) above for the bi-directional meter. The metering charge assumes common use of all Company facilities up to the metering point, for both receipt and delivery of energy. Any additional facilities required by Company to accommodate the PV System will require Customer to pay a net interconnection charge in advance.
- c. Company shall receive all net energy, if any, generated by the PV System at the Service Address and not consumed by the Customer. If the production of the PV System is more than the Customer's usage as measured by the Company's meter, the negative consumption (i.e. net energy delivered to the Company) as measured by the Company's meter shall be considered as net energy and Customer shall be compensated as provided in Sections 2(c) and (e) above. Onsite use of energy generated by the PV System shall be unmetered for purposes of compensation.

Interconnection to Company Distribution System.

- d. Company will permit Customer to connect the PV System to Company's distribution system on the load side of Customer's meter. The connection must be made through a Customer provided, Customer installed National Electrical Manufacturer's Association-approved, manual disconnect switch of adequate ampere capacity. The switch shall not open the neutral when the switch is open. This switch shall have provisions for being padlocked in the open position with a standard Company padlock. Customer agrees to locate the switch in a position accessible to Company personnel on the building exterior within ten (10) feet of the main service meter, unless another location is identified and approved in advance by Company. Customer further agrees that the switch may be operated by Company personnel at all times that such operation is deemed necessary by Company for safety and operating reasons. If the PV System uses commuted synchronous inverters, the inverters shall be connected on the load side (PV System side) of the safety disconnect switch.
- e. Customer shall pay Company for the actual, reasonable costs of interconnection, which will be determined by Company and communicated to Customer upon Company's receipt of Customer's application to participate in Company's Solar*Rewards Program. Customer must pay these costs to Company before Company will perform any work to its electric distribution system relating to Customer's PV System.

(Continued on Sheet No. 9-18)

Date Filed: 10-31-13 By: David M. Sparby Effective Date: 07-23-14

President and CEO of Northern States Power Company, a Minnesota corporation

SOLAR*REWARDS CUSTOMER CONTRACT (CLOSED TO NEW APPLICANTS) (Continued)

Section No. 9
1st Revised Sheet No. 18

5. Requirements for PV System Installation, Operation, and Maintenance.

Interconnection to Company Distribution System. (Continued)

- f. Customer shall provide the necessary equipment as approved by Company to operate the PV System in parallel with Company's distribution system. The PV System must be equipped to instantaneously discontinue all output to and energization of Company's distribution system under any of the following conditions:
 - 1. De-energized Company system
 - Sustained line faults on Company's system
 - 3. Faults on Customer's PV System

Customer shall consult with Company regarding these minimum requirements, additional protections recommended by Company, and proper operation of Customer's PV System. Since the power factor and the voltage at which Company's system and Customer's PV System are operated will vary, Customer and Company agree to operate their respective systems at a power factor as near unity as possible in such manner as to absorb its share of the reactive power, and voltage as conducive to the best operating standards.

- g. Customer shall supply to Company a single-line diagram and associated equipment list for the PV System control circuitry to enable Company to determine if the PV System safety equipment provides a level of safety consistent with the safety level required by the Company. The singleline diagram shall show all major equipment of the PV System, including visual isolation equipment, Point of Common Coupling, Point of Delivery for Generation Systems that intentionally export, ownership of equipment and the location of metering.
- h. Customer understands and agrees that the Grid Inter-Tie Inverter System used in conjunction with its PV System must be certified as meeting the requirements of UL 1741.
- Customer understands and agrees that as additional cogeneration facilities are connected to the Company distribution system, Company may require Customer to install additional safety devices at Customer's expense.
- customer shall provide to Company for approval a copy of the test procedure that will be used to verify the protection and operation of the PV System. The PV system cannot backfeed the Company system upon loss of the utility source. If analysis of the proposed PV System by Company reveals that it is capable of backfeed into the Company lines during distribution outages, Customer shall immediately disconnect the PV from the Company distribution system and shall only reconnect the PV System through a Customer-provided, Company approved, interconnect device that will prevent backfeed. Customer shall notify Company at least two (2) weeks in advance of the testing of the PV System and Company reserves the right to witness the testing. Customer shall provide to Company a copy of the certified test report verifying that the test procedure was successful.

(Continued on Sheet No. 9-19)

Date Filed: 10-31-13 By: David M. Sparby Effective Date: 07-23-14

President and CEO of Northern States Power Company, a Minnesota corporation

SOLAR*REWARDS CUSTOMER CONTRACT (CLOSED TO NEW APPLICANTS) (Continued)

Section No. 9
1st Revised Sheet No. 19

5. Requirements for PV System Installation, Operation, and Maintenance.

Interconnection to Company Distribution System. (Continued)

- k. Customer agrees to disconnect the PV System from the Company distribution system or to reimburse Company for cost of necessary system modifications if operation of the PV System causes radio, television or electrical service interference to other customers, or interference with the operation of Company's system.
- I. For purposes of this Contract, these terms have the following meanings:
 - "Area EPS" is an electric power system (EPS) that serves Local EPSs. Note: typically an Area EPS has primary access to public rights-of-way, priority crossing of property boundaries, etc. The Company is an Area EPS.
 - "EPS" (Electric Power System) are facilities that deliver electric power to a load. Note: this may include generation units.
 - "Generation" is any device producing electrical energy, for example, rotating generators driven by wind, steam turbines, internal combustion engines, hydraulic turbines, solar, fuel cells, or any other electric producing device, including energy storage technologies.
 - "Generation System" is the interconnected generator(s), controls, relays, switches, breakers, transformers, inverters and associated wiring and cables, up to the Point of Common Coupling.
 - "Grid Inter-Tie Inverter" is a device that converts DC electricity to AC electricity. A Grid Inter-Tie Inverter also has been specifically designed and constructed to safely interconnect with an Area EPS. For purposes of this Contract, a Grid Inter-Tie Inverter is also designed and tested to meet the requirements of IEEE 1547 and ANSI 929 standards. If the Grid Inter-Tie Inverter is tested under UL 1741, it meets these aforementioned requirements.
 - "Local EPS" is an electric power system (EPS) contained entirely within a single premises or group of premises.
 - "Point of Common Coupling" is the point where the Local EPS is connected to the Company.
 - "Point of Delivery" is the point where the energy changes possession from one party to the other. Typically this will be where the metering is installed but it is not required that the Point of Delivery is the same as where the energy is metered.

(Continued on Sheet No. 9-20)

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President and CEO of Northern States Power Company, a Minnesota corporation

SOLAR*REWARDS CUSTOMER CONTRACT-(CLOSED TO NEW APPLICANTS) (Continued) Section No. 9 1st Revised Sheet No. 20

5. Requirements for PV System Installation, Operation, and Maintenance.

Interconnection to Company Distribution System.

I. For purposes of this Contract, these terms have the following meanings: (Continued)

"Renewable Energy Credits" or "RECs" are all attributes of an environmental or other nature that are created or otherwise arise from the PV System's generation of energy using solar energy as a fuel, including, but not limited to, tags, certificates or similar products or rights associated with solar energy as a "green" or "renewable" electric generation resource, including any and all environmental air quality credits, emission reductions, off-sets, allowances or other benefits related to the generation of energy from the PV System that reduces, displaces or off-sets emissions resulting from fuel combustion at another location pursuant to any existing or future international, federal, state or local legislation or regulation or voluntary agreement, and the aggregate amount of credits, offsets or other benefits including any rights, attributes or credits arising from or eligible for consideration in the M-RETS program or any similar program pursuant to any international, federal, state or local legislation or regulation or voluntary agreement and any renewable energy certificates issued pursuant to any program, information system or tracking system associated with the renewable energy generated from the PV System. RECs do not include any federal, state or local tax credits, cash grants, production incentives or similar tax or cash benefits for which Customer or the PV System are eligible or which either receives, or any depreciation, expenses, credits, benefits or other federal, state or local tax treatment for which Customer or the PV System is eligible or that either receives

Installation, Operation and Maintenance of PV System.

- m. Customer agrees that its installation of the PV System will be in compliance with all applicable electric codes and the PV System will be operated only after the installation has been inspected and approved by the appropriate authorities. Customer shall be solely responsible for ensuring that the PV System equipment as installed and operated meets all applicable codes, standards, and regulatory requirements. Customer understands and agrees that Company's approval of the proposed or installed PV System does not preclude the necessity of Customer obtaining all required permits, building and zoning variations and applicable inspections.
- n. The proposed installation of the PV System will be reviewed by Company to determine adequacy of the associated Company distribution system components. Customer agrees to reimburse Company for the addition, modification, or replacement of any distribution system components made necessary by Customer's PV system installation.
- Customer shall effectively ground the PV System installation and to provide and install adequate surge arrester protection to prevent lighting damage to any Company distribution system equipment.

(Continued on Sheet No. 9-21)

Date Filed: 10-31-13 By: David M. Sparby Effective Date: 07-23-14

President and CEO of Northern States Power Company, a Minnesota corporation

SOLAR*REWARDS CUSTOMER CONTRACT (CLOSED TO NEW APPLICANTS) (Continued)

Section No. 9 2nd Revised Sheet No. 21

5. Requirements for PV System Installation, Operation, and Maintenance.

Installation, Operation and Maintenance of PV System. (Continued)

- p. Customer shall maintain the PV System and the individual components of the system in good working order at all times during the term of this Contract. The Company shall have no responsibility for the maintenance or repair of the PV System, or for its installation or removal. If during the term of this Contract the PV System or any of the individual components of the system should be damaged or destroyed, Customer shall promptly repair or replace the equipment to its original specifications, tilt and orientation as set forth in Exhibit 1 at Customer's sole expense. Damages for breach of this provision of the Contract include no further payment of any amounts otherwise owed by the Company to the Customer under this Contract shall be paid.
- q. Customer will give the Company reasonable access to Customer's property and PV System if the configuration of those facilities does not permit disconnection or testing from the Company's side of the interconnection. If the Company enters Customer's property, the Company will remain responsible for its personnel.
- r. Customer must operate its PV System within any rules, regulations, and policies adopted by the Company not prohibited by the Commission's rules on Cogeneration and Small Power Production which provide reasonable technical connection and operating specifications for Customer (Company's Rules and Regulations Applicable to Cogeneration and Small Power Production Facilities are attached as Exhibit 3).
- s. Customer will operate its PV System so that it conforms to the national, state, and local electric and safety codes, and Customer will be responsible for the costs of conformance.

Additional Requirements.

- t. This Contract shall apply to new PV solar equipment only. Used equipment does not qualify for the payment described in Section 3b.
- u. Customer shall comply with all of the rules stated in Company's applicable electric tariff related to photovoltaic systems, as the same may be revised from time to time. The Company's rules, regulations, and policies must conform to the Commission's rules on Cogeneration and Small Power Production. In the event of any conflict between the terms of this Contract and Company's electric tariff, the provisions of the tariff shall control.
- v. Customer will obtain and keep in force liability insurance against personal or property damage due to the installation, interconnection, and operation of its PV System. The amount of insurance coverage will be \$300,000. Customer shall provide proof of this insurance prior to interconnection of the PV System to the Company's distribution system.

(Continued on Sheet No. 22)

Date Filed: 10-31-13 By: David M. Sparby Effective Date: 07-23-14

President and CEO of Northern States Power Company, a Minnesota corporation

SOLAR*REWARDS CUSTOMER CONTRACT (CLOSED TO NEW APPLICANTS) (Continued)

Section No. 9 1st Revised Sheet No. 22

6. Limitations and Liabilities.

- a. Qualification for the one-time payment from Company does not imply any representation or warranty by Company of the design, installation, or operation of the PV equipment, and Company expressly disclaims any and all warranties of the equipment as to workmanship, quality, or performance, including the fitness of the equipment for the purpose intended.
- b. Company shall not be responsible or liable for any personal injury or property damage caused by the PV System or any individual component equipment of the system. Company shall not be liable for failure or fault in the delivery of electrical energy to Customer or for total or partial interruption of service caused by accidents, breakdown of equipment, acts of God, floods, storms, fires, strikes, riots, war, terrorist attacks, sabotage, labor disputes, shortage of materials, the forces or nature, the authority and orders of government, and other causes or contingencies of whatever nature beyond the reasonable control of the Company, or which reasonably could not have been anticipated and avoided by the Company.
- c. Nothing in this Contract shall be construed as any representation or warranty by Company of the design, installation or operation of the PV System or any component thereof, and Company expressly disclaims any and all warranties of the equipment as to workmanship, quality, or performance, including the fitness of the equipment for the purpose intended.
- d. Company shall not be liable for revenue lost by Customer due to Company's inability to purchase or wheel energy generated by the PV System.
- e. Customer shall indemnify, defend, and hold Company, its employees, agents, successors, assigns, subsidiaries and affiliates harmless against any and all claims, demands, liens, lawsuits, judgments or actions of whatsoever nature that may be brought on account of the installation, maintenance, operation, repair, or replacement of the PV System or any component equipment of the system. Company shall not be liable to the Customer for any punitive, special, exemplary or consequential damages, including but not limited to, lost profits, loss of use, and costs of replacement, whether based in contract, tort, upon any theory of indemnity, or otherwise. Company makes no warranty or representation concerning the taxable consequences, if any, to Customer with respect to its one-time payment to Customer for participation in the Solar*Rewards Program, or compensation for electric service sold to Company from the operation of Customer's PV System (if any), and Customer is urged to seek professional advice regarding this issue.

7. Commencement and Term; Assignment; Enforceability.

- a. This Contract becomes effective as soon as it is signed by the Customer and the Company and shall continue for a term of twenty (20) years.
- b. This Contract is assignable by Customer to any subsequent purchaser of Customer's premises at the Service Address. Company shall have ownership of all RECs produced by the PV System during the twenty (20) year term of this Contract. In order for an assignment to be effective, Customer is required to provide to assignee the following documents: Assignment Agreement, a copy of this Contract, and any remaining warranty information for the PV System. Customer is released from any and all future liability under this Contract upon its effective assignment.

(Continued on Sheet No. 9-23)

Date Filed: 10-31-13 By: David M. Sparby Effective Date: 07-23-14

President and CEO of Northern States Power Company, a Minnesota corporation

SOLAR*REWARDS CUSTOMER CONTRACT (CLOSED TO NEW APPLICANTS) (Continued)

Section No. 9 1st Revised Sheet No. 23

7. Commencement and Term; Assignment; Enforceability. (Continued)

- c. This Contract and the terms contained in the Contract shall be binding and enforceable against the parties, their successors and assigns for as long as the Contract remains in effect.
- d. This Contract does not waive Customer's right to bring a dispute before the Commission as authorized by Minnesota Rules, parts 7835.4800, 7835.5800, and 7835.4500, and any other provision of the Commission's rules on Cogeneration and Small Power Production authorizing Commission resolution of a dispute.
- e. If a Party defaults in performing its obligations under this Contract, the non-defaulting Party may give written notice to the defaulting Party identifying the nature of the default and stating that the non-defaulting Party may terminate this Contract if the defaulting Party does not cure the identified default within thirty (30) days of the date the non-defaulting Party mailed or delivered the written notice to the defaulting Party. If the defaulting Party does not cure the default identified in the written notice within that thirty (30) day period, then the non-defaulting Party may, at its sole option, terminate this Contract upon written notice of termination mailed or delivered to the defaulting Party. Any notices given under this Section shall be addressed to the Parties (or their successors in interest) at their respective mailing addresses identified in the first paragraph of this Contract.
- f. Each Party hereby irrevocably and unconditionally waives any right to a trial by jury for the resolution of any dispute arising under this Contract. Failure of either party to enforce any term or condition of this Contract shall not constitute a waiver of that term or condition or of any other term or condition of this Contract.

8. Miscellaneous.

- a. This Contract contains all the agreements made between Customer and the Company except that this Contract shall at all times be subject to all rules and orders issued by the Commission or other government agency having jurisdiction over the subject matter of this Contract. The terms of this Contract shall be modified and amended if required to comply with any order or regulation of the Commission, applicable state or federal laws or regulations, or other government agency having jurisdiction over the subject matter of this Contract. Company shall post all such modifications and amendments at its website at: www.xcelenergy.com/solar, and Customer and Company shall be bound by these posted modifications and amendments. Other than these exceptions, Customer and Company are not responsible for any agreements other than those stated in this Contract.
- This Contract shall be governed by and interpreted in accordance with the laws of the State of Minnesota.
- c. This Contract may be executed in two or more counterparts, each of which is deemed original but all constitute one and the same instrument. The Parties agree that a facsimile copy of a signature will be deemed original and binding.

(Continued on Sheet No. 9-24)

Date Filed: 10-31-13 By: David M. Sparby Effective Date: 07-23-14

President and CEO of Northern States Power Company, a Minnesota corporation

Docket No. E999/CI-15-755 Information Request MPUC-005 Attachment A.1., Pages 25 of 121

Northern States Power Company, a Minnesota corporation Minneapolis, Minnesota 55401

MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2

SOLAR*REWARDS CUSTOMER CONTRACT (CLOSED TO NEW APPLICANTS) (Continued)

Section No. 9 2nd Revised Sheet No. 24

8. Miscellaneous. (Continued)

- d. Except as otherwise specifically provided herein, this Contract is not intended to, and shall not, create rights, remedies, or any benefits of any character whatsoever, in favor of any person, corporation or other entity other than the Parties hereto, and the obligations herein assumed are for the use and benefit of the Parties, their successors in interest, and permitted assigns.
- e. This Contract and the rights and obligations of the parties hereunder shall be subject to all valid applicable state, local and federal laws, rules, regulations, ordinances, orders and decisions issued or promulgated for or by any court or regulatory agency having or asserting jurisdiction over this Contract, the services to be performed hereunder or either of the parties hereto.
- f. By executing this Contract, Customer grants to Company permission to share information concerning the location of the PV System and other information concerning the RECs owned by Company under this Contract to other Minnesota public utilities, municipalities, cooperatives and other entities that may be involved in REC transactions for the limited purpose of ensuring that the RECs associated with the Customer's PV System have not been sold to another entity.
- g. By executing this Contract, Customer grants to Company permission to share with Installer selected by Customer any Customer information necessary to Installer to complete installation of the PV system on Customer's behalf.
- h. No portion of any other Customer contract is intended to conflict with this Contract. In the case of a conflict between any such Customer contract and this Contract, the terms and conditions of this Contract shall control. Nothing in any other Customer contract shall prevent the Company from fully enforcing the terms and conditions of this Contract.
- i. CUSTOMER AND THE COMPANY HAVE READ THIS CONTRACT AND AGREE TO BE BOUND BY ITS TERMS. AS EVIDENCE OF THEIR AGREEMENT, THEY HAVE EACH SIGNED THIS CONTRACT BELOW ON THE DATE WRITTEN AT THE BEGINNING OF THIS CONTRACT.

As a qualified Company customer, I have read, understand, and agree to the terms of the Contract set forth above and accept the one-time payment described in Section 3(b).

Customer Name (printed):		
Customer Signature:	Date:	
	(Continued on Sheet No. 9-25)	

Date Filed: 10-31-13 By: David M. Sparby Effective Date: 07-23-14

President and CEO of Northern States Power Company, a Minnesota corporation

Docket No. E999/CI-15-755 Information Request MPUC-005 Attachment A.1., Pages 26 of 121

Northern States Power Company, a Minnesota corporation Minneapolis, Minnesota 55401 MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2

SOLAR*REWARDS CUSTOMER CONTRACT (CLOSED TO NEW APPLICANTS) (Continued)

Section No. 9 1st Revised Sheet No. 25

Based on the actual equipment information provided payment to Customer:	I, Company extends the following one-time
\$	
Northern States Power Company, a Minnesota co	rporation
Ву:	Date:
as authorized agent for Northern States Power Company	
Title:	
Please mail the signed Solar*Rewards Contract to th address shown below. The Contract will be signed I mailed back to you.	
Solar*Rewards Company 414 Nicollet Mall – 6th Floo Solar*Rewards Program Manager:	• •

(Continued on Sheet No. 9-26)

Date Filed: 10-31-13 By: David M. Sparby Effective Date: 07-23-14

President and CEO of Northern States Power Company, a Minnesota corporation

SOLAR*REWARDS CUSTOMER CONTRACT (CLOSED TO NEW APPLICANTS) (Continued)

Section No. 9 1st Revised Sheet No. 26

EXHIBIT 1: ACTUAL SYSTEM INSTALLATION INFORMATION
Installer completes the following AFTER project completion and installation.

Customer name:
Service Address:
Installer company:
Actual price for PV installation without batteries (attach PV invoice):
Company Account Number:
Date of PV installation:
Town / municipality / county:
Amount of Solar*Rewards Program payment (\$):
Please check the appropriate box(es) if this is the same as the application for each item:
Please check the appropriate box(es) if this is the same as the application for each item: Tilt:0 (90° is vertical, 0° is flat)
Orientation:º (180º is south, 90º is east, 270º is west)
Manufacturer of PV panels installed:
STC rating (kW DC):
☐ Model number of PV inverter installed:
☐ Inverter Quantity:
☐ Power rating:W
□ PV Watts estimate of annual kWh generated:
☐ Efficiency %:
☐ Battery backup:
As the installer for this project, I certify that the above-referenced PV equipment was installed at the Service Address listed above.
Installer's Signature Date
Installer's Name Printed

Date Filed: 10-31-13 By: David M. Sparby Effective Date: 07-23-14

President and CEO of Northern States Power Company, a Minnesota corporation

Docket No. E999/CI-15-755 Information Request MPUC-005 Attachment A.1., Pages 28 of 121

Northern States Power Company, a Minnesota corporation Minneapolis, Minnesota 55401 MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2

SOLAR*REWARDS CUSTOMER CONTRACT (CLOSED TO NEW APPLICANTS) (Continued)

Section No. 9 1st Revised Sheet No. 27

EXHIBIT 2: Attach a copy of current Company tariff elected by Customer

Date Filed: 10-31-13 By: David M. Sparby Effective Date: 07-23-14

President and CEO of Northern States Power Company, a Minnesota corporation

Docket No. E999/CI-15-755 Information Request MPUC-005 Attachment A.1., Pages 29 of 121

Northern States Power Company, a Minnesota corporation Minneapolis, Minnesota 55401 MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2

SOLAR*REWARDS CUSTOMER CONTRACT (CLOSED TO NEW APPLICANTS) (Continued)

Section No. 9 1st Revised Sheet No. 28

EXHIBIT 3: Attach a copy of current Rules and Regulations Applicable to Cogeneration and Small Power Production Facilities

Date Filed: 10-31-13 By: David M. Sparby Effective Date: 07-23-14

President and CEO of Northern States Power Company, a Minnesota corporation

MINNESOTA ELECTRIC RATE BOOK - MIF OC NO. 2

SOLAR*REWARDS CUSTOMER CONTRACT ADDENDUM ADDRESSING MINNESOTA BONUS REBATE (CLOSED TO NEW APPLICANTS)

Section No. 9 1st Revised Sheet No. 29

Addendum to Solar*Rewards Contract Addressing Minnesota Bonus Rebate

This Addendum modifies the Minnesota Solar*Rewards Customer Contract (Application ID: _______). This Addendum is only applicable where the Customer qualifies for participation in the Minnesota Bonus Rebate Program as authorized by Minn. Stat. §116C.7791 for a rebate to an owner of a qualified property for installing solar photovoltaic modules manufactured in Minnesota after December 31, 2009, and both the Customer and Company have signed this Addendum.

- 1. Definitions. For the purpose of this Addendum, the following terms have the meanings given.
 - (a) "Installation" means an array of solar photovoltaic modules attached to a building that will use the electricity generated by the solar photovoltaic modules or placed on a facility or property proximate to that building.
 - (b) "Manufactured" means:
 - (1) the material production of solar photovoltaic modules, including the tabbing, stringing, and lamination processes; or
 - (2) the production of interconnections of low-voltage photoactive elements that produce the final useful photovoltaic output by a manufacturer operating in this state on May 18, 2010.
 - (c) "Qualified owner" means an owner of a qualified property, but does not include an entity engaged in the business of generating or selling electricity at retail, or an unregulated subsidiary of such an entity.
 - (d) "Qualified property" means a residence, multifamily residence, business, or publicly owned building located in the assigned service area of the utility subject to Minn. Stat. §116C.779.
 - (e) "Solar photovoltaic module" means the smallest, nondivisible, self-contained physical structure housing interconnected photovoltaic cells and providing a single direct current of electrical output.

(Continued on Sheet No. 9-30)

Date Filed: 10-31-13 By: David M. Sparby Effective Date: 07-23-14

President and CEO of Northern States Power Company, a Minnesota corporation

Northern States Power Company, a Minnesota corporation Minneapolis, Minnesota 55401

MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2

SOLAR*REWARDS CUSTOMER CONTRACT ADDENDUM ADDRESSING MINNESOTA BONUS REBATE (CLOSED TO NEW APPLICANTS) (Continued)

Section No. 9 2nd Revised Sheet No. 30

2. Rebate eligibility.

- (a) To be eligible for a rebate under this section, a solar photovoltaic module:
 - (1) must be manufactured in Minnesota after December 31, 2009;
 - (2) must be installed on a qualified property as part of a system whose generating capacity does not exceed 40 kilowatts:
 - (3) must be certified by Underwriters Laboratory, must have received the ETL listed mark from Intertek, or must have an equivalent certification from an independent testing agency;
 - (4) must be installed, or reviewed and approved, by a person certified as a solar photovoltaic installer by the North American Board of Certified Energy Practitioners; and
 - (5) may not be used to sell, transmit, or distribute the electrical energy at retail, nor to provide end-use electricity to an offsite facility of the electrical energy generator. On-site generation is allowed to the extent provided for in Minn. Stat. §216B.1611.
- (b) To be eligible for a rebate under this section, an applicant must have applied for and been awarded a rebate under the Customer's Solar*Rewards Customer Contract with the Company. However, an applicant who is otherwise ineligible for a rebate under this paragraph is eligible if the applicant's failure to secure a rebate or other form of financial assistance is due solely to a lack of available funds on the part of the Company or the state.

3. Rebate amount and payment.

- (a) The amount of a rebate under this Addendum is the difference between the sum of all rebates described in the Customer's Solar*Rewards Customer Contract with the Company and \$5 per watt of installed generating capacity.
- (b) Notwithstanding paragraph (a), the amount of all rebates or other forms of financial assistance awarded to an applicant by a utility and the state, including any rebate paid under this section, net of applicable federal income taxes applied at the highest applicable income tax rates, must not exceed sixty percent (60%) of the total installed cost of the solar photovoltaic modules.
- (c) The rebate must be paid out proportionately in five (5) consecutive annual installments.

(Continued on Sheet No. 9-31)

Date Filed: 10-31-13 By: David M. Sparby Effective Date: 07-23-14

President and CEO of Northern States Power Company, a Minnesota corporation

Northern States Power Company, a Minnesota corporation Minneapolis, Minnesota 55401

MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2

SOLAR*REWARDS CUSTOMER CONTRACT ADDENDUM ADDRESSING MINNESOTA BONUS REBATE (CLOSED TO NEW APPLICANTS) (Continued)

Section No. 9 1st Revised Sheet No. 31

4. Calculation of payment.			
Upon compliance with, and verification of Bonus Rebate is \$ to be paid ou Company reserves the right to recalculate adjustments to the payments are retroact in response to legislation or otherwise. Th §116C.7791, including depreciation as ap Total Qualified Project Costs: \$	at proportionately in five consecutive these payments if any project detailively authorized by any Order issued the calculation of the payment is based uplicable and on the following assumption of the payment is based uplicable and on the following assumption of the payment is based uplicable and on the following assumption of the payment is based uplicable and on the following assumption of the payment is based up to the payment in the payment is based up to the payment in the payment in the payment is based up to the payment in the payment in the payment in the payment is based up to the payment in the payment in the payment is based up to the payment in the payment is based up to the payment in the payment is based up to the payment in the payment is based up to the payment in the payment is based up to the payment i	annual installments of \$ Is differ from the original app I by the Minnesota Public Ut ed on the provisions in Minn ptions:	The plication, or if tilities Commissic . Stat.
Highest applicable Federal Income Tax radepreciation:%;	ate of the system's owner or an entity	y benefitting from the projec	t's Federal tax
Total of all other rebates or other forms o	f financial assistance from the utility	or state \$.	
System	PV Panels	Inverters	
PV system size:kW direct current	Manufacturer:	Manufacturer:	
PVWatts.com annual energy production estimate:kWh	Model number:	Model number:	
	Count:	Count:	
	Tilt: $(0^{\circ} = flat)$	Power Rating:	
	Orientation: $(180^{\circ} = S)$	Efficiency:	
Customer Signature:		Date:	
Northern States Power Company, a Mi	nnesota corporation		
Ву:		Date:	
as authorized agent for Northern States F	Power Company		
Title:			
Please mail this Addendum to Solar*R program manager at the address show Addendum will be mailed back to you.	n below. The Contract will be sign		
Solar*Rewards Company 414 Nicollet Solar*Rewards Program Manager:	-	55401 Fax: 612-318-4785	
Date Filed: 10-31-13 President and CFO of	By: David M. Sparby Northern States Power Company, a	Effective Date:	07-23-14
Docket No. E002/M-13-1015	The second secon	Order Date:	07-23-14

Docket No. E999/CI-15-755 Information Request MPUC-005 Attachment A.1., Pages 33 of 121

Northern States Power Company, a Minnesota corporation Minneapolis, Minnesota 55401

MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2

SOLAR*REWARDS CUSTOMER CONTRACT ADDENDUM ADDRESSING WAIVER OF BI-DIRECTIONAL METERING (CLOSED TO NEW APPLICANTS)

Section No. 9 1st Revised Sheet No. 32

Addendum to Solar*Rewards Contract Addressing Customer Waiver of Bi-Directional Metering

This Addendum modifies the Minnesota Solar*Rewards Customer Contract (Application ID: ______). This Addendum addresses the situation when the Customer determines that it will not install a bi-directional meter as otherwise required by the Minnesota Solar*Rewards Customer Contract.

Notwithstanding any other provisions in the Minnesota Solar*Rewards Customer Contract to the contrary, the following provisions apply:

- 1. The Customer will not install, or cause to have installed, a bi-directional meter.
- 2. The Customer will not be compensated for any electricity received by the Company from the Customer.

Customer Name (printed):	
Customer Signature:	Date:
Northern States Power Company, a Minnesota corporation	
Ву:	Date:
as authorized agent for Northern States Power Company	
Title:	
Please mail this Addendum to Solar*Rewards Contract Addre Metering to the Solar*Rewards program manager at the addre by Company and a copy of this Addendum will be mailed bac	ess shown below. The Contract will be signed
Solar*Rewards Company 414 Nicollet Mall – 6th Floor Minnea Solar*Rewards Program Manager:	•

Date Filed: 10-31-13 By: David M. Sparby Effective Date: 07-23-14

President and CEO of Northern States Power Company, a Minnesota corporation

SOLAR*REWARDS CUSTOMER CONTRACT

Section No. 9 Original Sheet No. 33

Application	ID:

SOLAR*REWARDS

CUSTOMER CONTRACT

Customer-Sited Photovoltaic (PV) Systems Greater than 0.5 kW and Less than 20 kW DC Nameplate Capacity

This Contract is made and en	tered into by and between Northern States Power Company, a Minnesota corpo	oration
having a mailing address of 4	14 Nicollet Mall, Minneapolis, Minnesota 55401 ("Company"), and	
(whether one or more, "Custo	mer"), whose mailing address for billing and notice purposes	
is:, c	concerning electric service at the following address:	(the
"Service Address").		

1. Fact Background.

- a. Customer will be installing the electric generating facilities described in Exhibit 1 (the "PV System") and meeting the requirements stated in this Contract, with a nameplate capacity rated at greater than 0.5 kilowatts and less than 20 kilowatts direct current ("DC"), on property located at the Service Address.
- b. Customer's PV System also meets the requirements of the Minnesota Public Utilities Commission (the "Commission") Rules Chapter 7835 on Cogeneration and Small Power Production and any technical standards for interconnection the Company has established that are authorized by those Rules.
- c. Customer is prepared to generate electricity in parallel with the Company using the PV System.
- d. Customer has submitted to Company and paid an engineering review fee of \$250.00. Unfunded applicants for whom engineering review has not been completed will receive a full refund for this fee.
- e. The Company is obligated under federal and Minnesota state law to interconnect with Customer and to purchase electricity generated by Customer through qualifying facilities and offered for sale to Company by Customer.
- f. A Customer who receives approval for, or is a participant in, the Made in Minnesota program for the PV System covered by this Contract shall not receive any benefits under this Contract and shall return to the Company all monies paid or credited under this Contract.
- g. Customer and Company enter into this Contract which sets out the terms and conditions for the purchase and sale of the electricity generated by the PV System ("Solar*Rewards Program"), and related matters.

(Continued on Sheet No. 9-34)

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President and CEO of Northern States Power Company, a Minnesota corporation

Docket No. E002/M-13-1015 Order Date: 07-23-14

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Northern States Power Company, a Minnesota corporation Minneapolis, Minnesota 55401

MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2

SOLAR*REWARDS CUSTOMER CONTRACT	Section No.
(Continued)	Original Sheet No.

2. Purchases and Sales of Electricity.

Customer and Company agree:

- a. Company will sell electricity to Customer under the rate schedule in force for the class of customer to which Customer belongs.
- b. Customer agrees to supply electricity generated by the PV System in the form of ____ phase, ____ wire, alternating current at the nominal frequency of 60 hertz, and at a nominal voltage of ____.
- Company will buy electricity generated by the PV System from Customer under the applicable Company rate schedule filed with the Commission. Customer elects to sell electricity generated by the PV System in excess of Customer's own use under the terms of the following Company tariff:

Net Energy Billing Service, Rate Code A50
Purchase and Sale Billing Service, Rate Code A51
Time of Day Purchase Service, Rate Code A52

A copy of the currently filed elected tariff is attached as Exhibit 2. The rates, terms and conditions for sales and purchases of electricity, as referenced in the above tariffs, may be changed over the time this Contract is in force, due to actions of the Company or of the Commission, and Customer and Company agree that sales and purchases will be made under the rates in effect each month during the time this Contract is in force. However, the incentive payment discussed in Section 3(b) below shall remain the same for 10 years.

d. Customer will pay a monthly metering charge under the Company tariff elected by the Customer, provided in Exhibit 2, and according to meter installation requirements in Section 5b. The monthly metering charge pays for the cost and installation of a bi-directional meter at the Service Address which measures electricity delivered by the Company to the Customer and energy received by the Company from the Customer, and the associated billing, operating and maintenance expenses. The metering charge may be changed over the time this Contract is in force, due to actions of the Company or of the Commission, and Customer and Company agree that the metering charge will be under the rates in effect each month during the time this Contract is in force.

(Continued on Sheet No. 9-35)

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Northern States Power Company, a Minnesota corporation Minneapolis, Minnesota 55401

MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2

SOLAR*REWARDS CUSTOMER CONTRACT (Continued)

Section No. 9 Original Sheet No. 35

2. Purchases and Sales of Electricity. (Continued)

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- e. The Company will compute the charges and payments for purchases and sales of electricity for each billing period. If the payments for electricity generated by the PV System and sold to Company exceed the charges for electricity which the Company supplies and sells to Customer (i.e. net positive production by the PV System), the credit will accumulate on the Company's billing statement to Customer and will be paid by check to Customer within fifteen (15) days of the billing date once the accumulated credit exceeds \$25.00.
- f. Company may stop providing electricity to Customer during a system emergency, without notice. Company will give Customer prior notice by telephone or regular U.S. mail when Company is to stop providing electricity in non-emergency circumstances. The Company will not discriminate against Customer when it stops providing electricity or when it resumes providing electricity. Company may stop purchasing electricity from Customer when necessary to construct, install, maintain, repair, replace, remove, investigate or inspect any equipment or facilities within its electric system when this activity would be adversely affected if customer were supplying power to the system. Company will give Customer prior notice by telephone or regular U.S. mail letter when Company will stop purchasing electricity from Customer.

3. Ownership of Renewable Energy Credits and Incentive Payment.

Customer and Company agree:

- a. On the terms and subject to the conditions set forth in this Contract, the Customer agrees to convey to the Company and the Company will own all of the Renewable Energy Credits ("RECs"), defined in Section 5(I) below generated by the PV System at the Service Address for a term of ten (10) years from the installation date set forth in the "Actual System Installation Information" attached to this Contract as Exhibit 1.
- b. In consideration for Customer's participation in Company's Solar*Rewards Program, Company shall pay a predetermined per kWh financial incentive for the PV System production prior to any net metering adjustments for ten (10) years beginning with final commissioning. The incentive will remain set for the 10-year payment period and will not vary from year to year. PV System production will accumulate for each year. Within ninety (90) days after the end of each year, the Customer will receive an incentive check equal to the year's PV production, as measured by the billing statement that includes December 31, times the \$/kWh incentive. No incentive shall accrue after ten (10) years from the commissioning of the PV System, and the final incentive calculation will be at the end of that year, with the billing statement that includes December 31.
- c. The \$/kWh incentive is as follows: The Company shall pay \$0.08/kWh for the PV System production. This \$/kWh incentive amount may be changed by a tariff amendment to this Contract prior to both parties signing this Contract.
- d. The \$/kWh incentive may be assigned by the Customer to a third party.

(Continued on Sheet No. 9-36)

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President and CEO of Northern States Power Company, a Minnesota corporation

SOLAR*REWARDS CUSTOMER CONTRACT (Continued)

Section No. 9 Original Sheet No. 36

4. Representations by Customer.

Customer hereby makes the following representations and warranties to Company:

- a. Customer warrants that the person signing this Contract on behalf of Customer is authorized and competent to sign this Contract and to bind Customer to the terms of this Contract.
- b. Customer receives electric service from Company at the Service Address set forth above, is the person in whose name electric service is listed at the Service Address, and is the owner of the property at the Service Address.
- c. Customer is an end-use electric consumer located within the electric service territory of Company in Minnesota whose primary business is not the generation of electricity for retail or wholesale sale from the same facility. Customer is not installing the PV System at the Service Address in connection with a business of developing or improving real estate for resale.
- d. Customer shall install a new PV System at the Service Address, which shall have at least a five (5) year warranty, and shall be installed as of the date set forth in Exhibit 1.
- e. The PV System shall be located on the Customer's facilities at the Service Address at all times during the term of this Contract.
- f. The PV System has a minimum nameplate DC output capacity of 500 watts and a maximum capacity of less than 20 kilowatts.
- g. Customer represents that the PV System shall be sized, when combined with other distributed generation resources serving the Service Address, to supply no more than one hundred twenty percent (120%) of the previous annual (12-month) consumption of electric energy by Customer at the Service Address. Customer acknowledges that Solar*Rewards Program is only available to PV Systems where the estimated annual generation, as determined by the National Renewable Energy Laboratory's PVWatts™ calculator is not more than 120% of the previous annual (12-month) electric energy consumption at the Service Address. If historical electric energy consumption data is not available due to new construction, the Company will calculate the estimated annual electric energy consumption.
- h. PV equipment including, but not limited to modules, inverters, etc., as described in Customer's completed Exhibit 1 shall meet eligibility requirements when listed as qualified on the Company website: www.xcelenergy.com.
- i. [Intentionally left blank].
- j. The Customer is not a participant in the Made in Minnesota program for the PV System covered by this Contract.
- k. The Customer has not received an incentive under the Solar*Rewards program for another PV System installed at this Service Address, and is not a party to any other signed contract with the Company pertaining to the PV System. Customer shall not collect incentives from other state or utility programs for the PV system covered under this Contract.

(Continued on Sheet No. 9-37)

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SOLAR*REWARDS CUSTOMER CONTRACT (Continued)

Section No. 9 Original Sheet No. 37

5. Requirements for PV System Installation, Operation, and Maintenance.

Energy Audit.

a. Customer is required to conduct an Online Energy Assessment for the building at the Service Address which hosts a PV system, in compliance with Company's Energy Assessment program prior to Company's payment made as described in Section 3(b), unless such Assessment or an on-site Energy Audit has been completed within the past three years, or (for residential customers) the Customer's home was ENERGY STAR-certified under the Company's ENERGY STAR homes project, or (for business customers) the Customer participated in the Commercial Real Estate, Energy Design Assistance, Energy Efficient Buildings, Recommissioning, or ENERGY STAR Benchmark programs.

Metering.

- b. Two meters are required to be installed at the Service Address. One meter is located at the main service and is a bi-directional meter that will record energy delivered to the Customer from the Company, and energy received by the Company from Customer. Installation of a bi-directional meter may not be required if the configuration of Customer's facilities allows and a previously installed bi-directional meter provides the information necessary for billing purposes. The second (Production) meter will record energy generated by the PV System only. The Company shall install, or cause to be installed, own, operate and maintain the Production meter to measure the AC production of the PV System, at the Company's expense and including the cost of the Production meter itself. Customer will provide all meter housing and socket replacement and rewiring to install both meters. Customer shall be charged monthly the metering charge described in Section 2(d) above for the bi-directional meter. The metering charge assumes common use of all Company facilities up to the metering point, for both receipt and delivery of energy. Any additional facilities required by Company to accommodate the PV System will require Customer to pay a net interconnection charge in advance.
- c. Company shall receive all net energy, if any, generated by the PV System at the Service Address and not consumed by the Customer. If the production of the PV System is more than the Customer's usage as measured by the Company's meter, the negative consumption (i.e. net energy delivered to the Company) as measured by the Company's meter shall be considered as net energy and Customer shall be compensated as provided in Sections 2(c) and (e) above. Onsite use of energy generated by the PV System shall be unmetered for purposes of compensation, except for as provided in Section 3(b).

(Continued on Sheet No. 9-38)

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SOLAR*REWARDS CUSTOMER CONTRACT (Continued)

Section No. 9 Original Sheet No. 38

5. Requirements for PV System Installation, Operation, and Maintenance.

Interconnection to Company Distribution System.

- d. Company will permit Customer to connect the PV System to Company's distribution system on the load side of Customer's meter. The connection must be made through a Customer provided, Customer installed National Electrical Manufacturer's Association-approved, manual disconnect switch of adequate ampere capacity. The switch shall not open the neutral when the switch is open. This switch shall have provisions for being padlocked in the open position with a standard Company padlock. Customer agrees to locate the switch in a position accessible to Company personnel on the building exterior within ten (10) feet of the main service meter, unless another location is identified and approved in advance by Company. Customer further agrees that the switch may be operated by Company personnel at all times that such operation is deemed necessary by Company for safety and operating reasons. If the PV System uses commuted synchronous inverters, the inverters shall be connected on the load side (PV System side) of the safety disconnect switch.
- e. Customer shall pay Company for the actual, reasonable costs of interconnection, which will be determined by Company and communicated to Customer upon Company's receipt of Customer's application to participate in Company's Solar*Rewards Program. Customer must pay these costs to Company before Company will perform any work to its electric distribution system relating to Customer's PV System.
- f. Customer shall provide the necessary equipment as approved by Company to operate the PV System in parallel with Company's distribution system. The PV System must be equipped to instantaneously discontinue all output to and energization of Company's distribution system under any of the following conditions:
 - 1. De-energized Company system
 - 2. Sustained line faults on Company's system
 - 3. Faults on Customer's PV System

Customer shall consult with Company regarding these minimum requirements, additional protections recommended by Company, and proper operation of Customer's PV System. Since the power factor and the voltage at which Company's system and Customer's PV System are operated will vary, Customer and Company agree to operate their respective systems at a power factor as near unity as possible in such manner as to absorb its share of the reactive power, and voltage as conducive to the best operating standards.

g. Customer shall supply to Company a single-line diagram and associated equipment list for the PV System control circuitry to enable Company to determine if the PV System safety equipment provides a level of safety consistent with the safety level required by the Company. The singleline diagram shall show all major equipment of the PV System, including visual isolation equipment, Point of Common Coupling, Point of Delivery for Generation Systems that intentionally export, ownership of equipment and the location of metering.

(Continued on Sheet No. 9-39)

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SOLAR*REWARDS CUSTOMER CONTRACT (Continued)

Section No. 9 Original Sheet No. 39

5. Requirements for PV System Installation, Operation, and Maintenance.

Interconnection to Company Distribution System. (Continued)

- Customer understands and agrees that the Grid Inter-Tie Inverter System used in conjunction with its PV System must be certified as meeting the requirements of UL 1741.
- [Intentionally left blank.]
- j. Customer shall provide to Company for approval a copy of the test procedure that will be used to verify the protection and operation of the PV System. The PV system cannot backfeed the Company system upon loss of the utility source. If analysis of the proposed PV System by Company reveals that it is capable of backfeed into the Company lines during distribution outages, Customer shall immediately disconnect the PV from the Company distribution system and shall only reconnect the PV System through a Customer-provided, Company approved, interconnect device that will prevent backfeed. Customer shall notify Company at least two (2) weeks in advance of the testing of the PV System and Company reserves the right to witness the testing. Customer shall provide to Company a copy of the certified test report verifying that the test procedure was successful.
- k. Customer agrees to disconnect the PV System from the Company distribution system (until remedied) or to reimburse Company for cost of necessary system modifications if a malfunction of the PV System causes radio or television interference. Notice of cost impacts will be given to customer before the Company makes upgrades to the distribution system and charges upgrade costs to the customer. The Company will not provide prior notice if upgrades are required to safeguard health and safety in an emergency.
- I. For purposes of this Contract, these terms have the following meanings:
 - "Area EPS" is an electric power system (EPS) that serves Local EPSs. Note: typically an Area EPS has primary access to public rights-of-way, priority crossing of property boundaries, etc. The Company is an Area EPS.
 - "EPS" (Electric Power System) are facilities that deliver electric power to a load. Note: this may include generation units.
 - "Generation" is any device producing electrical energy, for example, rotating generators driven by wind, steam turbines, internal combustion engines, hydraulic turbines, solar, fuel cells, or any other electric producing device, including energy storage technologies.
 - "Generation System" is the interconnected generator(s), controls, relays, switches, breakers, transformers, inverters and associated wiring and cables, up to the Point of Common Coupling.
 - "Grid Inter-Tie Inverter" is a device that converts DC electricity to AC electricity. A Grid Inter-Tie Inverter also has been specifically designed and constructed to safely interconnect with an Area EPS. For purposes of this Contract, a Grid Inter-Tie Inverter is also designed and tested to meet the requirements of IEEE 1547 and ANSI 929 standards. If the Grid Inter-Tie Inverter is tested under UL 1741, it meets these aforementioned requirements.

(Continued on Sheet No. 9-40)

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SOLAR*REWARDS CUSTOMER CONTRACT (Continued)

Section No. 9
Original Sheet No. 4

5. Requirements for PV System Installation, Operation, and Maintenance.

Interconnection to Company Distribution System.

For purposes of this Contract, these terms have the following meanings: (Continued)
 "Local EPS" is an electric power system (EPS) contained entirely within a single premises or group of premises.

"Point of Common Coupling" is the point where the Local EPS is connected to the Company.

"Point of Delivery" is the point where the energy changes possession from one party to the other. Typically this will be where the metering is installed but it is not required that the Point of Delivery is the same as where the energy is metered.

"Renewable Energy Credits" or "RECs" are all attributes of an environmental or other nature that are created or otherwise arise from the PV System's generation of energy using solar energy as a fuel, including, but not limited to, tags, certificates or similar products or rights associated with solar energy as a "green" or "renewable" electric generation resource, including any and all environmental air quality credits, emission reductions, off-sets, allowances or other benefits related to the generation of energy from the PV System that reduces, displaces or off-sets emissions resulting from fuel combustion at another location pursuant to any existing or future international, federal, state or local legislation or regulation or voluntary agreement, and the aggregate amount of credits, offsets or other benefits including any rights, attributes or credits arising from or eligible for consideration in the M-RETS program or any similar program pursuant to any international, federal, state or local legislation or regulation or voluntary agreement and any renewable energy certificates issued pursuant to any program, information system or tracking system associated with the renewable energy generated from the PV System. RECs do not include any federal, state or local tax credits, cash grants, production incentives or similar tax or cash benefits for which Customer or the PV System are eligible or which either receives, or any depreciation, expenses, credits, benefits or other federal, state or local tax treatment for which Customer or the PV System is eligible or that either receives.

Installation, Operation and Maintenance of PV System.

- m. Customer agrees that its installation of the PV System will be in compliance with all applicable electric codes and the PV System will be operated only after the installation has been inspected and approved by the appropriate authorities. Customer shall be solely responsible for ensuring that the PV System equipment as installed and operated meets all applicable codes, standards, and regulatory requirements. Customer understands and agrees that Company's approval of the proposed or installed PV System does not preclude the necessity of Customer obtaining all required permits, building and zoning variations and applicable inspections.
- n. The proposed installation of the PV System will be reviewed by Company to determine adequacy of the associated Company distribution system components. Customer agrees to reimburse Company for the addition, modification, or replacement of any distribution system components made necessary by Customer's PV system installation. Notice of cost impacts will be given to customer before the Company makes upgrades to the distribution system and charges upgrade costs to the customer prior to interconnection. The Company will not provide prior notice if upgrades are required to safeguard health and safety in an emergency.
- Customer shall effectively ground the PV System installation and to provide and install adequate surge arrester protection to prevent lighting damage to any Company distribution system equipment.

(Continued on Sheet No. 9-41)

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SOLAR*REWARDS CUSTOMER CONTRACT (Continued)

Section No. 9
Original Sheet No. 41

5. Requirements for PV System Installation, Operation, and Maintenance.

Installation, Operation and Maintenance of PV System. (Continued)

- p. Customer shall maintain the PV System and the individual components of the system in good working order at all times during the term of this Contract. The Company shall have no responsibility for the maintenance or repair of the PV System, or for its installation or removal. If during the term of this Contract the PV System or any of the individual components of the system should be damaged or destroyed, Customer shall promptly repair or replace the equipment to its original specifications as set forth in Exhibit 1 at Customer's sole expense. Damages for breach of this provision of the Contract include no further payment of any amounts otherwise owed by the Company to the Customer under this Contract shall be paid.
- q. Customer will give the Company reasonable access to Customer's property and PV System if the configuration of those facilities does not permit disconnection or testing from the Company's side of the interconnection. If the Company enters Customer's property, the Company will remain responsible for its personnel.
- r. Customer must operate its PV System within any rules, regulations, and policies adopted by the Company not prohibited by the Commission's rules on Cogeneration and Small Power Production which provide reasonable technical connection and operating specifications for Customer (Company's Rules and Regulations Applicable to Cogeneration and Small Power Production Facilities are attached as Exhibit 3).
- s. Customer will operate its PV System so that it conforms to the national, state, and local electric and safety codes, and Customer will be responsible for the costs of conformance.

Additional Requirements.

- t. This Contract shall apply to new PV solar equipment only. Used equipment does not qualify for the payment described in Section 3(b).
- u. Customer shall comply with all of the rules stated in Company's applicable electric tariff related to photovoltaic systems, as the same may be revised from time to time. The Company's rules, regulations, and policies must conform to the Commission's rules on Cogeneration and Small Power Production. The Customer and Company shall comply with all the rules stated in the Company's applicable electric tariff and the tariffed version of this Contract, as the same may be changed from time to time. In the event of any conflict between the terms of this Contract and Company's electric tariff, the provisions of the tariff shall control.
- v. Customer will obtain and keep in force liability insurance against personal or property damage due to the installation, interconnection, and operation of its PV System. The amount of insurance coverage will be \$300,000 at minimum. Customer shall provide proof of this insurance prior to interconnection of the PV System to the Company's distribution system.

(Continued on Sheet No. 42)

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SOLAR*REWARDS CUSTOMER CONTRACT (Continued)

Section No. 9 Original Sheet No. 42

6. Limitations and Liabilities.

a. Company does not imply any representation or warranty by Company of the design, installation, or operation of the PV equipment, and Company expressly disclaims any and all warranties of the equipment as to workmanship, quality, or performance, including the fitness of the equipment for the purpose intended.

- b. Company shall not be responsible or liable for any personal injury or property damage caused by the PV System or any individual component equipment of the system. Company shall not be liable for failure or fault in the delivery of electrical energy to Customer or for total or partial interruption of service caused by accidents, breakdown of equipment, acts of God, floods, storms, fires, strikes, riots, war, terrorist attacks, sabotage, labor disputes, shortage of materials, the forces or nature, the authority and orders of government, and other causes or contingencies of whatever nature beyond the reasonable control of the Company, or which reasonably could not have been anticipated and avoided by the Company.
- c. Nothing in this Contract shall be construed as any representation or warranty by Company of the design, installation or operation of the PV System or any component thereof, and Company expressly disclaims any and all warranties of the equipment as to workmanship, quality, or performance, including the fitness of the equipment for the purpose intended.
- d. Company shall not be liable for revenue lost by Customer due to Company's inability to purchase or wheel energy generated by the PV System.
- e. Customer shall indemnify, defend, and hold Company, its employees, agents, successors, assigns, subsidiaries and affiliates harmless against any and all claims, demands, liens, lawsuits, judgments or actions of whatsoever nature that may be brought on account of the installation, maintenance, operation, repair, or replacement of the PV System or any component equipment of the system. Company shall not be liable to the Customer for any punitive, special, exemplary or consequential damages, including but not limited to, lost profits, loss of use, and costs of replacement, whether based in contract, tort, upon any theory of indemnity, or otherwise. Company makes no warranty or representation concerning the taxable consequences, if any, to Customer with respect to its payments to Customer for participation in the Solar*Rewards Program, or compensation for electric service sold to Company from the operation of Customer's PV System (if any), and Customer is urged to seek professional advice regarding this issue.

7. Commencement and Term; Assignment; Enforceability.

- a. This Contract becomes effective as soon as it is signed by the Customer and the Company and shall continue for a term of ten (10) years. At the end of the term of this Contract, the Customer's energy production and the REC ownership will be subject to the applicable tariff approved by the Commission.
- b. This Contract is assignable by Customer to any subsequent purchaser of Customer's premises at the Service Address. Company shall have ownership of all RECs produced by the PV System during the ten (10) year term of this Contract. In order for an assignment to be effective, Customer is required to provide to assignee the following documents: Assignment Agreement, a copy of this Contract, and any remaining warranty information for the PV System. Customer is released from any and all future liability under this Contract upon its effective assignment.

(Continued on Sheet No. 9-43)

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MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2

SOLAR*REWARDS CUSTOMER CONTRACT (Continued)

Section No. 9 Original Sheet No. 43

7. Commencement and Term; Assignment; Enforceability. (Continued)

- c. This Contract and the terms contained in the Contract shall be binding and enforceable against the parties, their successors and assigns for as long as the Contract remains in effect.
- d. This Contract does not waive Customer's right to bring a dispute before the Commission as authorized by Minnesota Rules, parts 7835.4800, 7835.5800, and 7835.4500, and any other provision of the Commission's rules authorizing Commission resolution of a dispute.
- e. If a Party defaults in performing its obligations under this Contract, the non-defaulting Party may give written notice, mailed or delivered, to the defaulting Party: (a) identifying the nature of the default; and (b) stating that the non-defaulting Party may terminate this Contract if the defaulting Party does not cure the identified default within ninety (90) days for PV system operational issues and within thirty (30) days for non-operational issues, unless the failure to cure is due to factors beyond the defaulting Party's control, in which case the defaulting Party shall be given an additional period of time to cure that is reasonable under the circumstances. If the defaulting Party does not cure the default identified in the written notice within the identified time period, then the non-defaulting Party may, at its sole option, terminate this Contract upon written notice of termination mailed or delivered to the defaulting Party. Any notices given under this Section shall be addressed to the Parties (or their successors in interest) at their respective mailing addresses identified in the first paragraph of this Contract.
- f. Each Party hereby irrevocably and unconditionally waives any right to a trial by jury for the resolution of any dispute arising under this Contract. Failure of either party to enforce any term or condition of this Contract shall not constitute a waiver of that term or condition or of any other term or condition of this Contract.

8. Miscellaneous.

- a. This Contract contains all the agreements made between Customer and the Company except that this Contract shall at all times be subject to all rules and orders issued by the Commission or other government agency having jurisdiction over the subject matter of this Contract. The terms of this Contract shall be modified and amended if required to comply with any order or regulation of the Commission, applicable state or federal laws or regulations, or other government agency having jurisdiction over the subject matter of this Contract. Company shall post all such modifications and amendments at its website at: www.xcelenergy.com, and Customer and Company shall be bound by these posted modifications and amendments. Other than these exceptions, Customer and Company are not responsible for any agreements other than those stated in this Contract.
- This Contract shall be governed by and interpreted in accordance with the laws of the State of Minnesota.
- c. This Contract may be executed in two or more counterparts, each of which is deemed original but all constitute one and the same instrument. The Parties agree that a facsimile copy of a signature will be deemed original and binding.

(Continued on Sheet No. 9-44)

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Docket No. E999/CI-15-755 Information Request MPUC-005 Attachment A.1., Pages 45 of 121

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SOLAR*REWARDS CUSTOMER CONTRACT

Section No. 9 Original Sheet No. 44

8. Miscellaneous. (Continued)

(Continued)

- d. Except as otherwise specifically provided herein, this Contract is not intended to, and shall not, create rights, remedies, or any benefits of any character whatsoever, in favor of any person, corporation or other entity other than the Parties hereto, and the obligations herein assumed are for the use and benefit of the Parties, their successors in interest, and permitted assigns.
- e. This Contract and the rights and obligations of the parties hereunder shall be subject to all valid applicable state, local and federal laws, rules, regulations, ordinances, orders and decisions issued or promulgated for or by any court or regulatory agency having or asserting jurisdiction over this Contract, the services to be performed hereunder or either of the parties hereto.
- f. By executing this Contract, Customer grants to Company permission to share information concerning the location of the PV System and other information concerning the RECs owned by Company under this Contract to other Minnesota public utilities, municipalities, cooperatives and other entities that may be involved in REC transactions for the limited purpose of ensuring that the RECs associated with the Customer's PV System have not been sold to another entity.
- g. By executing this Contract, Customer grants to Company permission to share with Installer selected by Customer any Customer information necessary to Installer to complete installation of the PV system on Customer's behalf.
- h. No portion of any other Customer contract is intended to conflict with this Contract. In the case of a conflict between any such Customer contract and this Contract, the terms and conditions of this Contract shall control. Nothing in any other Customer contract shall prevent the Company from fully enforcing the terms and conditions of this Contract.
- i. CUSTOMER AND THE COMPANY HAVE READ THIS CONTRACT AND AGREE TO BE BOUND BY ITS TERMS. AS EVIDENCE OF THEIR AGREEMENT, THEY HAVE EACH SIGNED THIS CONTRACT BELOW ON THE DATE WRITTEN AT THE BEGINNING OF THIS CONTRACT.

As a qualified Company customer, I have read, understand, and agree to the terms of the Contract set forth above and accept the 10-year payments described in Section 3(b).

Customer Name (printed):		
Customer Signature:	Date:	

(Continued on Sheet No. 9-45)

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President and CEO of Northern States Power Company, a Minnesota corporation

Docket No. E002/M-13-1015 Order Date: 07-23-14

MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2

SOLAR*REWARDS CUSTOMER CONTRACT (Continued)	Section No. 9 Original Sheet No. 45	
Company provides the per kWh payment referenced in Section period following commissioning to Customer.	n 3(b) for production over the 10-year	Ν
Northern States Power Company, a Minnesota corporation		
By: as authorized agent for Northern States Power Company	Date:	
Title:		
Please mail the signed Solar*Rewards Contract to the Solar*Readdress shown below. The Contract will be signed by Comparmailed back to you.		
Solar*Rewards Company 414 Nicollet Mall – 6th Floor Minneap Solar*Rewards Program Manager:	oolis, MN 55401 Fax: 800-252-4371	Ν

(Continued on Sheet No. 9-46)

Date Filed: 10-31-13 By: David M. Sparby Effective Date: 07-23-14

President and CEO of Northern States Power Company, a Minnesota corporation

MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2

(Continued)	Original Sheet No. 46
EXHIBIT 1: ACTUAL SYSTEM INSTALLATION INFORMATION Installer completes the following AFTER project completion and installer	ıllation.
Customer name:	
Service Address:	
Installer company:	
Actual price for PV installation without batteries (attach PV invoice):	
Company Account Number:	
Date of PV installation:	
Town / municipality / county:	
Please check the appropriate box(es) if this is the same as the application	for each item:
Please check the appropriate box(es) if this is the same as the applicat Manufacturer of PV panels installed: Model number of PV panels installed: STC rating (kW DC): Manufacturer of PV inverter installed: Model number of PV inverter installed:	tion for each item:
Inverter Quantity:Power rating:W	
PV Watts estimate of annual kWh generated: Efficiency %: Battery backup:	
As the installer for this project, I certify that the above-referenced PV Address listed above.	equipment was installed at the Service
Installer's Signature Da	ate
Installer's Name Printed	1

Date Filed: 10-31-13 By: David M. Sparby Effective Date: 07-23-14

President and CEO of Northern States Power Company, a Minnesota corporation

Docket No. E999/CI-15-755 Information Request MPUC-005 Attachment A.1., Pages 48 of 121

Northern States Power Company, a Minnesota corporation Minneapolis, Minnesota 55401 MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2

SOLAR*REWARDS CUSTOMER CONTRACT (Continued)

Section No. 9 Original Sheet No. 47

EXHIBIT 2: Attach a copy of current Company tariff elected by Customer

Ν

Date Filed: 10-31-13 By: David M. Sparby Effective Date: 07-23-14

President and CEO of Northern States Power Company, a Minnesota corporation

Docket No. E999/CI-15-755 Information Request MPUC-005 Attachment A.1., Pages 49 of 121

Northern States Power Company, a Minnesota corporation Minneapolis, Minnesota 55401 MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2

SOLAR*REWARDS CUSTOMER CONTRACT (Continued)

Section No. 9 Original Sheet No. 48

EXHIBIT 3: Attach a copy of current Rules and Regulations Applicable to Cogeneration and Small Power Production Facilities

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Date Filed: 10-31-13 By: David M. Sparby Effective Date: 07-23-14

President and CEO of Northern States Power Company, a Minnesota corporation

Docket No. E999/CI-15-755 Information Request MPUC-005 Attachment A.1., Pages 50 of 121

Northern States Power Company, a Minnesota corporation Minneapolis, Minnesota 55401 MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2

RESERVED FOR FUTURE USE

Section No. 9 Original Sheet No. 49

RESERVED FOR FUTURE USE

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President and CEO of Northern States Power Company, a Minnesota corporation

Northern States Power Company, a Minnesota corporation Minneapolis, Minnesota 55401

MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2

SOLAR*REWARDS COMMUNITY CONTRACT FOR THOSE RECEIVING SOLAR*REWARDS INCENTIVE Section No. 9 Original Sheet No. 50

Application	ID:

SOLAR*REWARDS COMMUNITY CONTRACT FOR THOSE RECEIVING SOLAR*REWARDS INCENTIVE

CONTRACT

Solar Garden Photovoltaic (PV) Systems Greater than 1 kW and Less than 20 kW DC Nameplate Capacity

his Contract is made and entered into by and between Northern States Power Company, a Minnesota corporation
aving a mailing address of 414 Nicollet Mall, Minneapolis, Minnesota 55401 ("Company"), and
Community Solar Garden Operator"), whose mailing address for billing and notice purposes
:, concerning electric service at the following address: (the
Service Address").

1. Fact Background.

- a. Community Solar Garden Operator will be installing the electric generating facilities described in Exhibit 1 (the "PV System") and meeting the requirements stated in this Contract, with a nameplate capacity rated at greater than 1 kilowatts and less than 20 kilowatts direct current ("DC"), on property located at the Service Address.
- Community Solar Garden Operator is prepared to generate electricity in parallel with the Company using the PV System.
- c. Community Solar Garden Operator has submitted to Company an application to participate in Company's Solar*Rewards program using the PV System.
- d. The Company is obligated under federal and Minnesota state law to interconnect with Community Solar Garden Operator and to purchase electricity generated by Community Solar Garden Operator through qualifying facilities and offered for sale to Company by the Community Solar Garden Operator.
- e. A Community Solar Garden Operator who receives approval for, or is a participant in, the Made in Minnesota program for the same PV System shall not receive any benefits under this Contract and shall return to the Company all monies paid or credited under this Contract.
- f. The Community Solar Garden Operator has an active application as a garden operator with Company's Solar*Rewards Community Program.
- g. Community Solar Garden Operator and Company enter into this Contract which sets out the terms and conditions for the purchase and sale of the electricity generated by the PV System ("Solar*Rewards Program"), and related matters.

(Continued on Sheet No. 9-51)

Date Filed: 09-30-13 & 10-31-13 By: David M. Sparby Effective Date: 09-17-14

President and CEO of Northern States Power Company, a Minnesota corporation

Docket No. E002/M-13-867 & E002/M-13-1015 Order Date: 09-17-14

Northern States Power Company, a Minnesota corporation Minneapolis, Minnesota 55401

MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2

SOLAR*REWARDS COMMUNITY CONTRACT FOR THOSE RECEIVING SOLAR*REWARDS INCENTIVE (Continued)

Section No. 9 Original Sheet No. 51

2. Purchases and Sales of Electricity.

Customer and Company agree:

- a. Company will sell electricity to the Community Solar Garden Operator under the rate schedule in force for the class of customer to which the Community Solar Garden Operator belongs.
- b. Community Solar Garden Operator agrees to supply electricity generated by the PV System in the form of ____ phase, ____ wire, alternating current at the nominal frequency of 60 hertz, and at a nominal voltage of ____.
- c. Company will buy electricity generated by the PV System from the Community Solar Garden Operator under the applicable Company rate schedule filed with the Commission. The Community Solar Garden Operator elects to sell electricity generated by the PV System under the terms of the Standard Contract for Solar*Rewards Community (as may be amended, hereinafter "Standard Contract for Solar*Rewards Community") and this Solar*Rewards Community Contract for those Receiving Solar*Rewards Incentive.
- d. Community Solar Garden Operator will pay a monthly metering charge as set forth under the Standard Contract for Solar*Rewards Community. House Power and other metering requirements set forth in the Standard Contract for Solar*Rewards Community also apply.
- e. Sale of energy will be as set forth under the Standard Contract for Solar*Rewards Community and as set forth in this Solar*Rewards Community Contract for those Receiving Solar*Rewards Incentive.
- f. Company may stop providing electricity to the Community Solar Garden Operator during a system emergency, without notice. Company will give Community Solar Garden Operator prior notice by telephone or regular U.S. mail when Company is to stop providing electricity in non-emergency circumstances. The Company will not discriminate against Community Solar Garden Operator when it stops providing electricity or when it resumes providing electricity. Company may stop purchasing electricity from Community Solar Garden Operator when necessary to construct, install, maintain, repair, replace, remove, investigate or inspect any equipment or facilities within its electric system when this activity would be adversely affected if the Community Solar Garden Operator were supplying power to the system. Company will give the Community Solar Garden Operator notice consistent with the Standard Contract for Solar*Rewards Community when Company will stop purchasing electricity from the Community Solar Garden Operator.

(Continued on Sheet No. 9-52)

Date Filed: 09-30-13 & 10-31-13 By: David M. Sparby Effective Date: 09-17-14

President and CEO of Northern States Power Company, a Minnesota corporation

Docket No. E002/M-13-867 & E002/M-13-1015 Order Date: 09-17-14

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MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2

SOLAR*REWARDS COMMUNITY CONTRACT FOR THOSE RECEIVING SOLAR*REWARDS INCENTIVE (Continued)

Section No. 9 Original Sheet No. 52

3. Ownership of Renewable Energy Credits and Incentive Payment.

Community Solar Garden Operator and Company agree:

- a. On the terms and subject to the conditions set forth in this Contract, the Community Solar Garden Operator agrees to convey to the Company and the Company will own all of the Renewable Energy Credits ("RECs"), defined in Section 5(c) below generated by the PV System at the Service Address for a term of ten (10) years from the installation date set forth in the "Actual System Installation Information" attached to this Contract as Exhibit 1.
- b. In consideration for Community Solar Garden Operator's participation in Company's Solar*Rewards Program, Company shall pay a predetermined per kWh financial incentive for the PV System production for ten (10) years beginning with final commissioning. The incentive will remain set for the 10-year payment period and will not vary from year to year. PV System production will accumulate for each year. Within ninety (90) days after the end of each year, the Community Solar Garden Operator will receive an incentive check equal to the year's PV production, as measured by the billing statement that includes December 31, times the \$/kWh incentive. No incentive shall accrue after ten (10) years from the commissioning of the PV System, and the final incentive calculation will be at the end of that year, with the billing statement that includes December 31.
- c. The \$/kWh incentive is as follows: The Company shall pay \$0.08/kWh for the PV system production. This \$/kWh incentive amount may be changed by a tariff amendment to this Contract prior to both parties signing this Contract.
- d. The \$/kWh incentive may be assigned by the Community Solar Garden Operator to a third party.

4. Representations by Community Solar Garden Operator.

Community Solar Garden Operator hereby makes the following representations and warranties to Company:

- a. Community Solar Garden Operator warrants that the person signing this Contract on behalf of Community Solar Garden Operator is authorized and competent to sign this Contract and to bind Community Solar Garden Operator to the terms of this Contract.
- b. Community Solar Garden Operator is an end-use electric consumer located within the electric service territory of Company in Minnesota.
- c. Community Solar Garden Operator shall install a new PV System at the Service Address, which shall have at least a five (5) year warranty, and shall be installed as of the date set forth in Exhibit 1.

(Continued on Sheet No. 9-53)

Date Filed: 09-30-13 & 10-31-13 By: David M. Sparby Effective Date: 09-17-14

President and CEO of Northern States Power Company, a Minnesota corporation

Docket No. E002/M-13-867 & E002/M-13-1015 Order Date: 09-17-14

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MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2

SOLAR*REWARDS COMMUNITY CONTRACT FOR THOSE RECEIVING SOLAR*REWARDS INCENTIVE (Continued)

Section No. 9 Original Sheet No. 53

4. Representations by Community Solar Garden Operator. (Continued)

- d. The PV System shall be located on the Community Solar Garden Operator's facilities at the Service Address at all times during the term of this Contract.
- e. The PV System has a minimum nameplate DC output capacity of 1000 watts and a maximum capacity of less than 20 kilowatts.
- f. PV equipment including, but not limited to modules, inverters, etc., as described in the Community Solar Garden Operator's completed Exhibit 1 shall meet eligibility requirements when listed as qualified on the Company website: www.xcelenergy.com.
- g. [Intentionally left blank].
- h. The Community Solar Garden Operator is not a participant in the Made in Minnesota program for the PV System covered by this Contract.
- i. The Community Solar Garden Operator has not received an incentive under the Solar*Rewards production incentive program for another PV system installed at this Service Address, and is not a party to any other signed contract with the Company pertaining to the PV System other than the Standard Contract for Solar*Rewards Community. Customer shall not collect incentives from other state or utility programs for the PV system covered under this Contract.
- j. This Contract shall not be effective until the Community Solar Garden Operator has an effective Standard Contract for Solar*Rewards Community. In the event that Community Solar Garden Operator has breached the Standard Contract for Solar*Rewards Community or is otherwise for some period of time not entitled to payments under that contract, then for the same period of time the Community Solar Garden Operator is not entitled to payments under this Contract. Any period of time under which the Customer is not entitled to incentive payments shall not extend the ten (10) year payment period referenced in Section 3(b). In the event that the Standard Contract for Solar*Rewards Community is terminated, then this Contract shall also be terminated.

5. Requirements for PV System Installation, Operation, and Maintenance.

Metering.

a. The metering requirements are set forth in the Standard Contract for Solar*Rewards Community.

Interconnection to Company Distribution System.

 Interconnection requirements are set forth in the Standard Contract for Solar*Rewards Community.

(Continued on Sheet No. 9-54)

Date Filed: 09-30-13 & 10-31-13 By: David M. Sparby Effective Date: 09-17-14

President and CEO of Northern States Power Company, a Minnesota corporation

Docket No. E002/M-13-867 & E002/M-13-1015 Order Date: 09-17-14

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MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2

SOLAR*REWARDS COMMUNITY CONTRACT FOR THOSE RECEIVING SOLAR*REWARDS INCENTIVE (Continued)

Section No. 9 Original Sheet No. 54

5. Requirements for PV System Installation, Operation, and Maintenance.

Interconnection to Company Distribution System. (Continued)

c. For purposes of this Contract, these terms have the following meanings: (Continued)

"Renewable Energy Credits" or "RECs" are all attributes of an environmental or other nature that are created or otherwise arise from the PV System's generation of energy using solar energy as a fuel, including, but not limited to, tags, certificates or similar products or rights associated with solar energy as a "green" or "renewable" electric generation resource, including any and all environmental air quality credits, emission reductions, off-sets, allowances or other benefits related to the generation of energy from the PV System that reduces, displaces or off-sets emissions resulting from fuel combustion at another location pursuant to any existing or future international, federal, state or local legislation or regulation or voluntary agreement, and the aggregate amount of credits, offsets or other benefits including any rights, attributes or credits arising from or eligible for consideration in the M-RETS program or any similar program pursuant to any international, federal, state or local legislation or regulation or voluntary agreement and any renewable energy certificates issued pursuant to any program, information system or tracking system associated with the renewable energy generated from the PV System. RECs do not include any federal, state or local tax credits, cash grants, production incentives or similar tax or cash benefits for which Community Solar Garden Operator or the PV System are eligible or which either receives, or any depreciation, expenses, credits, benefits or other federal, state or local tax treatment for which Community Solar Garden Operator or the PV System is eligible or that either receives.

Installation, Operation and Maintenance of PV System.

d. Community Solar Garden Operator shall maintain the PV System and the individual components of the system in good working order at all times during the term of this Contract. The Company shall have no responsibility for the maintenance or repair of the PV System, or for its installation or removal. If during the term of this Contract the PV System or any of the individual components of the system should be damaged or destroyed, Community Solar Garden Operator shall promptly repair or replace the equipment to its original specifications as set forth in Exhibit 1 at Community Solar Garden Operator's sole expense. Damages for breach of this provision of the Contract include no further payment of any amounts otherwise owed by the Company to the Community Solar Garden Operator under this Contract shall be paid.

Additional Requirements.

- e. This Contract shall apply to new PV solar equipment only. Used equipment does not qualify for the payment described in Section 3(b).
- f. Community Solar Garden Operator shall comply with all of the rules stated in Company's applicable electric tariff related to photovoltaic systems, as the same may be revised from time to time. The Community Solar Garden Operator and Company shall comply with all of the rules stated in the Company's applicable electric tariff and the tariffed version of this Contract, as the same may be changed from time to time. In the event of any conflict between the terms of this Contract and Company's electric tariff, the provisions of the tariff shall control.

(Continued on Sheet No. 9-55)

Date Filed: 09-30-14 & 10-31-13 By: David M. Sparby Effective Date: 09-17-14

President and CEO of Northern States Power Company, a Minnesota corporation

Docket No. E002/M-13-867 & E002/M-13-1015 Order Date: 09-17-14

Docket No. E999/CI-15-755 Information Request MPUC-005 Attachment A.1., Pages 56 of 121

SOLAR*REWARDS COMMUNITY CONTRACT FOR THOSE RECEIVING SOLAR*REWARDS INCENTIVE (Continued)

Section No. 9 Original Sheet No. 55

6. Limitations and Liabilities.

- a. Company does not imply any representation or warranty by Company of the design, installation, or operation of the PV equipment, and Company expressly disclaims any and all warranties of the equipment as to workmanship, quality, or performance, including the fitness of the equipment for the purpose intended.
- b. Company shall not be responsible or liable for any personal injury or property damage caused by the PV System or any individual component equipment of the system. Company shall not be liable for failure or fault in the delivery of electrical energy to the Community Solar Garden Operator or for total or partial interruption of service caused by accidents, breakdown of equipment, acts of God, floods, storms, fires, strikes, riots, war, terrorist attacks, sabotage, labor disputes, shortage of materials, the forces or nature, the authority and orders of government, and other causes or contingencies of whatever nature beyond the reasonable control of the Company, or which reasonably could not have been anticipated and avoided by the Company.
- c. Nothing in this Contract shall be construed as any representation or warranty by Company of the design, installation or operation of the PV System or any component thereof, and Company expressly disclaims any and all warranties of the equipment as to workmanship, quality, or performance, including the fitness of the equipment for the purpose intended.
- d. Company shall not be liable for revenue lost by the Community Solar Garden Operator due to Company's inability to purchase or wheel energy generated by the PV System.
- e. Community Solar Garden Operator shall indemnify, defend, and hold Company, its employees, agents, successors, assigns, subsidiaries and affiliates harmless against any and all claims, demands, liens, lawsuits, judgments or actions of whatsoever nature that may be brought on account of the installation, maintenance, operation, repair, or replacement of the PV System or any component equipment of the system. Company shall not be liable to the Community Solar Garden Operator for any punitive, special, exemplary or consequential damages, including but not limited to, lost profits, loss of use, and costs of replacement, whether based in contract, tort, upon any theory of indemnity, or otherwise. Company makes no warranty or representation concerning the taxable consequences, if any, to Community Solar Garden Operator with respect to its payments to Community Solar Garden Operator for participation in the Solar*Rewards Program, or compensation for electric service sold to Company from the operation of Community Solar Garden Operator's PV System (if any), and Community Solar Garden Operator is urged to seek professional advice regarding this issue.

7. Commencement and Term; Assignment; Enforceability.

- a. This Contract becomes effective as soon as it is signed by the Community Solar Garden Operator and the Company and shall continue for a term of ten (10) years. At the end of the term of this Contract, the Community Solar Garden Operator's energy production and the REC ownership will continue to be subject to Standard Contract for Solar*Rewards Community or other applicable tariff approved by the Commission.
- b. This Contract is assignable by Community Solar Garden Operator to any subsequent purchaser of Community Solar Garden Operator's premises at the Service Address. Company shall have ownership of all RECs produced by the PV System during the ten (10) year term of this Contract. In order for an assignment to be effective under this contract, Community Solar Garden Operator is required to provide to assignee the following documents: Assignment Agreement, a copy of this Contract, and any remaining warranty information for the PV System. Community Solar Garden Operator is released from any and all future liability under this Contract upon its effective assignment.

(Continued on Sheet No. 9-56)

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President and CEO of Northern States Power Company, a Minnesota corporation

Docket No. E002/M-13-867 & E002/M-13-1015 Order Date: 09-17-14

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Northern States Power Company, a Minnesota corporation Minneapolis, Minnesota 55401

MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2

SOLAR*REWARDS COMMUNITY CONTRACT FOR THOSE RECEIVING SOLAR*REWARDS INCENTIVE (Continued)

Section No. 9 Original Sheet No. 56

7. Commencement and Term; Assignment; Enforceability. (Continued)

- c. This Contract and the terms contained in the Contract shall be binding and enforceable against the parties, their successors and assigns for as long as the Contract remains in effect.
- d. This Contract does not waive Community Solar Garden Operator's right to bring a dispute before the Commission based on any provision of the Commission's rules authorizing Commission resolution of a dispute.
- e. If a Party defaults in performing its obligations under this Contract, the non-defaulting Party may give written notice, mailed or delivered, to the defaulting Party; (a) identifying the nature of the default; and (b) stating that the non-defaulting Party may terminate this Contract if the defaulting Party does not cure the identified default within ninety (90) days for PV system operational issues and within thirty (30) days for non-operational issues, unless the failure to cure is due to factors beyond the defaulting Party's control, in which case the defaulting Party shall be given an additional period of time to cure that is reasonable under the circumstances. If the defaulting Party does not cure the default identified in the written notice within the identified time period, then the non-defaulting Party may, at its sole option, terminate this Contract upon written notice of termination mailed or delivered to the defaulting Party. Any notices given under this Section shall be addressed to the Parties (or their successors in interest) at their respective mailing addresses identified in the first paragraph of this Contract.
- f. Each Party hereby irrevocably and unconditionally waives any right to a trial by jury for the resolution of any dispute arising under this Contract. Failure of either party to enforce any term or condition of this Contract shall not constitute a waiver of that term or condition or of any other term or condition of this Contract.

8. Miscellaneous.

- a. This Contract contains all the agreements made between Community Solar Garden Operator and the Company except that this Contract shall at all times be subject to all rules and orders issued by the Commission or other government agency having jurisdiction over the subject matter of this Contract. The terms of this Contract shall be modified and amended if required to comply with any order or regulation of the Commission, applicable state or federal laws or regulations, or other government agency having jurisdiction over the subject matter of this Contract. Company shall post all such modifications and amendments at its website at: www.xcelenergy.com, and Community Solar Garden Operator and Company shall be bound by these posted modifications and amendments. Other than these exceptions, Community Solar Garden Operator and Company are not responsible for any agreements other than those stated in this Contract.
- This Contract shall be governed by and interpreted in accordance with the laws of the State of Minnesota.
- c. This Contract may be executed in two or more counterparts, each of which is deemed original but all constitute one and the same instrument. The Parties agree that a facsimile copy of a signature will be deemed original and binding.

(Continued on Sheet No. 9-57)

Date Filed: 09-30-13 & 10-31-13 By: David M. Sparby Effective Date: 09-17-14

President and CEO of Northern States Power Company, a Minnesota corporation

Docket No. E002/M-13-867& E002/M-13-1015 Order Date: 09-17-14

Docket No. E999/CI-15-755 Information Request MPUC-005 Attachment A.1., Pages 58 of 121

Northern States Power Company, a Minnesota corporation Minneapolis, Minnesota 55401

MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2

SOLAR*REWARDS COMMUNITY CONTRACT FOR THOSE RECEIVING SOLAR*REWARDS INCENTIVE (Continued)

Section No. 9 Original Sheet No. 57

8. Miscellaneous. (Continued)

- d. Except as otherwise specifically provided herein, this Contract is not intended to, and shall not, create rights, remedies, or any benefits of any character whatsoever, in favor of any person, corporation or other entity other than the Parties hereto, and the obligations herein assumed are for the use and benefit of the Parties, their successors in interest, and permitted assigns.
- e. This Contract and the rights and obligations of the parties hereunder shall be subject to all valid applicable state, local and federal laws, rules, regulations, ordinances, orders and decisions issued or promulgated for or by any court or regulatory agency having or asserting jurisdiction over this Contract, the services to be performed hereunder or either of the parties hereto.
- f. By executing this Contract, Community Solar Garden Operator grants to Company permission to share information concerning the location of the PV System and other information concerning the RECs owned by Company under this Contract to other Minnesota public utilities, municipalities, cooperatives and other entities that may be involved in REC transactions for the limited purpose of ensuring that the RECs associated with the Community Solar Garden Operator's PV System have not been sold to another entity.
- g. By executing this Contract, Community Solar Garden Operator grants to Company permission to share with Installer selected by the Community Solar Garden Operator any Community Solar Garden Operator information necessary to Installer to complete installation of the PV system on Community Solar Garden Operator's behalf.
- h. COMMUNITY SOLAR GARDEN OPERATOR AND THE COMPANY HAVE READ THIS CONTRACT AND AGREE TO BE BOUND BY ITS TERMS. AS EVIDENCE OF THEIR AGREEMENT, THEY HAVE EACH SIGNED THIS CONTRACT BELOW ON THE DATE WRITTEN AT THE BEGINNING OF THIS CONTRACT.

As a qualified Community Solar Garden Operator, I have read, understand, and agree to the terms of the Contract set forth above and accept the 10-year payments described in Section 3(b).

Community Solar Garden Operator Name (printed):	
Community Solar Garden Operator Signature:	_ Date:

(Continued on Sheet No. 9-58)

Date Filed: 09-30-13 & 10-31-13 By: David M. Sparby Effective Date: 09-17-14

President and CEO of Northern States Power Company, a Minnesota corporation

Docket No. E002/M-13-867 & E002/M-13-1015 Order Date: 09-17-14

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MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2

SOLAR*REWARDS COMMUNITY CONTRACT FOR THOSE RECEIVING SOLAR*REWARDS INCENTIVE (Continued)

Section No. 9
Original Sheet No. 58

Company provides the per kWh payment referenced in Section 3(b) for production over the 10-year period following commissioning to Community Solar Garden Operator.

Northern States Power Company, a Minnesota corporation		
Зу:	y:	Date:
	as authorized agent for Northern States Power Company	
Γitl	tle:	
nc	lease mail this signed Solar*Rewards Community Contract centive to the Solar*Rewards program manager at the add gned by Company and a copy of the Contract will be maile	ress shown below. The Contract will be
	olar*Rewards Company 414 Nicollet Mall – 6th Floor Minne olar*Rewards Program Manager:	• •

•

Date Filed: 09-30-13 & 10-31-13 By: David M. Sparby Effective Date: 09-17-14

President and CEO of Northern States Power Company, a Minnesota corporation

Docket No. E002/M-13-867 & E002/M-13-1015 Order Date: 09-17-14

Northern States Power Company, a Minnesota corporation Minneapolis, Minnesota 55401 MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2

SOLAR*REWARDS COMMUNITY CONTRACT FOR THOSE RECEIVING SOLAR*REWARDS INCENTIVE (Continued)

Section No. 9 Original Sheet No. 59

EXHIBIT 1: ACTUAL SYSTEM INSTALLATION INFORMATION Installer completes the following AFTER project completion and installation.			
Community Solar Garden Operator name:			
Service Address:			
Installer company:			
Actual price for PV installation without batteries (attach PV invoice):			
Company Account Number:			
Date of PV installation:			
Town / municipality / county:			
Please check the appropriate box(es) if this is the same as the application for each item:			
Please check the appropriate box(es) if this is the same as the application for each item: Manufacturer of PV panels installed:			
☐ Model number of PV panels installed:			
STC rating (kW DC):			
☐ Manufacturer of PV inverter installed:			
☐ Model number of PV inverter installed:			
☐ Inverter Quantity:			
Power rating:W			
PV Watts estimate of annual kWh generated:			
☐ Efficiency %:			
☐ Battery backup:			
As the installer for this project, I certify that the above-referenced PV equipment was installed at the Service Address listed above.			
Installer's Signature Date			
Installer's Name Printed			

Date Filed: 09-30-13 & 10-31-13 By: David M. Sparby Effective Date: 09-17-14

President and CEO of Northern States Power Company, a Minnesota corporation

Docket No. E002/M-13-867 & E002/M-13-1015 Order Date: 09-17-14

MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2

ASSIGNMENT OF CONTRACT

Section No. 9 Original Sheet No. 60

ASSIGNMENT OF SOLAR*REWARDS CONTRACT

A Solar*Rewards Customer Contract ("Contract") having been made as of [insert date of underlying Solar*Rewards Contract] (a copy of which is attached hereto), by and between Northern States Power Company, a Minnesota corporation, having its principal office and place of business located at 414 Nicollet Mall, Minneapolis, Minnesota, 55401, hereinafter referred to as the Company, and [insert name of current party to the Solar*Rewards Customer Contract] ("Assignor") for service provided at [insert Service Address] ("Service Address"); and

WHEREAS, the Assignor intends to sell or has sold the premises at the Service Address to [<u>insert name of new purchaser of the Service Address</u>] ("Assignee"); and

WHEREAS, the Assignor intends to assign the Contract to the Assignee; and

NOW, THEREFORE, upon:

- The execution of this Assignment of Contract by Company, the Assignor, and the Assignee and the delivery of all signatures to Company;
- 2. The Assignor providing to the Company any remaining warranty information for the PV System; and,
- 3. The actual sale of the premises at the Service Address from the Assignor to the Assignee and notice provided by either the Assignee or Assignor to the Company of this actual sale,

the attached Contract is hereby further amended as follows:

- 1. The Assignor hereby irrevocably assigns the attached Contract in all respects to the Assignee and the Assignee accepts the assignment thereof in all respects.
- 2. Company consents to this assignment and, as assigned, the attached Contract is hereby amended so that wherever the name of the Assignor is used therein it shall mean the Assignee.
- Any and all payments made by Company under the Contract to either the Assignor or the Assignee shall be deemed to have been made to both and shall discharge Company from any further liability with regard to said payment.
- 4. If Assignor or any of its predecessors in interest under the Contract has assigned the incentive payments under the Contract to a third party, the assignment of the Contract is subject to that assignment of incentive payments. In this event, Assignee hereby provides consent for the Company to provide to such third party (and to any other person or entity who in the future the incentive payments may be subsequently reassigned) the following information related to the assigned Contract:
 - a. Customer's (Assignee's) name, address, account number, premise number and meter number(s).
 - b. Meter reading information pertaining to the PV System.
 - c. The compensation rate applicable to the PV System production.

(Continued on Sheet No. 9-61)

Date Filed: 10-31-13 By: David M. Sparby Effective Date: 07-23-14

President and CEO of Northern States Power Company, a Minnesota corporation

Docket No. E002/M-13-1015 Order Date: 07-23-14

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Northern States Power Company, a Minnesota corporation Minneapolis, Minnesota 55401

MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2

ASSIGNMENT OF CONTRACT Section No. 9 (Continued) Original Sheet No. 61 Company shall have ownership of all RECs produced by the PV System during the term of the attached 5. Contract. It is further agreed that all terms and conditions of the Contract, as amended, shall remain in full force and effect. Facsimile signatures, or signatures to the Assignment of Contract sent electronically, shall have the same effect as original signatures. Photocopies, or electronically stored versions of this Assignment of Contract, shall have the same validity as the original. IN WITNESS WHEREOF, Company, the Assignor, and the Assignee have executed this Assignment of Solar*Rewards Contract as of this _____ day of _____, 20__. Assignor - [insert actual name] Assignee - [insert actual name] By: _____ By: _____ Title: _____ Title: **Northern States Power Company** d/b/a Xcel Energy By: _____

Date Filed: 10-31-13 By: David M. Sparby Effective Date: 07-23-14

President and CEO of Northern States Power Company, a Minnesota corporation

Docket No. E002/M-13-1015 Order Date: 07-23-14

Title: _____

Docket No. E999/CI-15-755 Information Request MPUC-005 Attachment A.1., Pages 63 of 121

Northern States Power Company, a Minnesota corporation Minneapolis, Minnesota 55401 MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2

ASSIGNMENT OF STANDARD CONTRACT FOR SOLAR*REWARDS COMMUNITY (Continued)

Section No. 9 Original Sheet No. 61.1

ASSIGNMENT OF STANDARD CONTRACT FOR SOLAR*REWARDS COMMUNITY

	A Standard Contract for Solar*Rewards Community, including any amendments thereto approved by the
Minneso	ota Public Utilities Commission ("Contract") having been made as of [insert date of underlying Contract] (a
copy of	which is attached hereto), by and between Northern States Power Company, a Minnesota corporation, having
-	ipal office and place of business located at 414 Nicollet Mall, Minneapolis, Minnesota, 55401, hereinafter referred
	e Company, and [insert name of current party to the Contract ("Assignor") for a
Commu	nity Solar Garden with a nameplate capacity of kW (AC) located at
	<u>insert address</u>]; and
	WHEREAS, the Assignor intends to convey its interest as the Community Solar Garden Operator of the above- ced Community Solar Garden to [insert name of Assignee] ("Assignee");
and	
	WHEREAS, the Assignor intends to assign the Contract to the Assignee; and
Assigne	NOW, THEREFORE , upon the execution of this Assignment of Contract by Company, the Assignor, and the e and the delivery of all signatures to Company, the attached Contract is hereby further amended as follows:
۱.	The Assignor hereby irrevocably assigns the attached Contract in all respects to the Assignee and the Assignee accepts the assignment thereof in all respects.
2.	Company consents to this assignment and, as assigned, the attached Contract is hereby amended so that wherever the name of the Assignor is used therein it shall mean the Assignee.
3.	Any and all payments made by Company under the Contract to either the Assignor or the Assignee shall be deemed to have been made to both and shall discharge Company from any further liability with regard to said payment.
1.	Any and all financial liability, including but not limited to amounts due, from the Community Solar Garden Operator to the Company, occurring or accruing under the Contract on or before the date of the Company's signature to this Assignment shall be deemed to be the obligation of both the Assignor and Assignee, and the Company may recover any such amounts jointly and severally from the Assignor and Assignee.
5.	The Assignor will inform Assignee of all passwords associated with the Salesforce system relating to the Community Solar Garden.

(Continued on Sheet No. 9-61.2)

Date Filed: 12-18-15 By: Christopher B. Clark Effective Date: 12-18-15 President, Northern States Power Company, a Minnesota corporation

Docket No. E002/M-13-867 Order Date: 12-15-15

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Docket No. E999/CI-15-755 Information Request MPUC-005 Attachment A.1., Pages 64 of 121

Northern States Power Company, a Minnesota corporation Minneapolis, Minnesota 55401 MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2

ASSIGNMENT OF STANDARD CONTRACT FOR SOLAR*REWARDS COMMUNITY (Continued)

Section No. 9 Original Sheet No. 61.2

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ASSIGNMENT OF STANDARD CONTRACT FOR SOLAR*REWARDS COMMUNITY (Continued)

6.	The contact information, including name Assignee is as follows:	e, primary contact, address, telephone number and email address of the
7.	It is further agreed that all terms and co	nditions of the Contract, as amended, shall remain in full force and effect.
signat		ment of Contract sent electronically, shall have the same effect as original versions of this Assignment of Contract, shall have the same validity as
Solar*	IN WITNESS WHEREOF, Company, the Rewards Contract as of this day	e Assignor, and the Assignee have executed this Assignment of of, 20
Assig	nor – [insert actual name]	Assignee – [insert actual name]
Ву:		Ву:
Name	:	Name:
Title: _		Title:
	ern States Power Company Xcel Energy	
Ву:		
Name	:	
Title: ₋		

Date Filed: 12-18-15 By: Christopher B. Clark Effective Date: 12-18-15

President, Northern States Power Company, a Minnesota corporation

MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2

ASSIGNMENT OF INCENTIVE PAYMENTS

Section No. 9 1st Revised Sheet No. 62

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ASSIGNMENT OF INCENTIVE PAYMENTS

A Solar*Rewards Customer Contract or Solar*Rewards Community Contract for those receiving Solar*Rewards Incentive ("Contract") having been made as of [insert date of underlying Contract], by and between Northern States Power Company, a Minnesota corporation, having its principal office and place of business located at 414 Nicollet Mall, Minneapolis, Minnesota, 55401, hereinafter referred to as the Company, and [insert name of current party to the Contract] ("Assignor") for service provided at [insert Service Address] ("Service Address"); and

WHEREAS, the Assignor intends to assign the incentive payments referenced in paragraph 3.b of the Contract to [<u>insert name</u>, <u>address and telephone number</u>] ("Assignee"); and

NOW, THEREFORE, upon the execution of this Assignment by Company, the Assignor, and the Assignee and the delivery of all signatures to Company;

the following provisions apply:

- 1. The Assignor hereby irrevocably assigns the incentive payments in the Contract in all respects to the Assignee and the Assignee accepts the assignment thereof in all respects.
- 2. Company consents to this assignment and, as assigned, the Contract is hereby so amended.
- 3. Any and all incentive payments made by Company to either the Assignor or the Assignee shall be deemed to have been made to both and shall discharge Company from any further liability with regard to said payment.
- 4. The Assignor hereby provides consent for the Company to provide to the Assignee (and to any other person or entity who in the future the incentive payments may be subsequently re-assigned) with the following information on an ongoing basis until the incentive payments in the Contract are no longer due or payable:
 - a. Customer's (Assignor's) name, address, account number, premise number and meter number(s).
 - b. Meter reading information pertaining to the PV System, which may include historical meter reading information.
 - c. The compensation rate applicable to the PV System production.

It is further agreed that all terms and conditions of the Contract, as amended, shall remain in full force and effect.

Facsimile signatures, or signatures to the Assignment sent electronically, shall have the same effect as original signatures. Photocopies, or electronically stored versions of this Assignment, shall have the same validity as the original.

(Continued on Sheet No. 9-63)

Date Filed: 09-30-13 & 10-31-13 By: David M. Sparby Effective Date: 09-17-14

President and CEO of Northern States Power Company, a Minnesota corporation

Docket No. E002/M-13-867 & E002/M-13-1015 Order Date: 09-17-14

Docket No. E999/CI-15-755 Information Request MPUC-005 Attachment A.1., Pages 66 of 121

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Northern States Power Company, a Minnesota corporation Minneapolis, Minnesota 55401 MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2

ASSIGNMENT OF INCENTIVE PAYMENTS Section No. 9 (Continued) Original Sheet No. 63

IN WITNESS WHEREOF, Company, the Incentive Payments as of this day of	e Assignor, and the Assignee have executed this Assignment of, 20
Assignor – [insert actual name]	Assignee – [<i>insert</i> actual name]
By:	Ву:
Title:	Title:
Northern States Power Company d/b/a Xcel Energy	
By:	
Title:	-

Date Filed: 10-31-13 By: David M. Sparby Effective Date: 07-23-14

President and CEO of Northern States Power Company, a Minnesota corporation

MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2

SOLAR*REWARDS COMMUNITY PROGRAM

Section No. 9 1st Revised Sheet No. 64

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AVAILABILITY

Available to any Residential, Commercial, and Industrial customer who elects to offset electric charges through a subscription in a company-approved community solar garden.

RATE

The Bill Credit Rate below applicable to the subscriber is dependent on the customer class under which the subscriber receives service and the Bill Credit Type selected by the garden operator in the tariffed Standard Contract for Solar*Rewards Community.

		Bill Credit Rate per kWh (AC)
		for Energy Delivered to
Customer Class Bill Credit Type		Company
	Standard	\$0.12743
Residential Service	Enhanced – Solar Gardens > 250 KW (AC)	\$0.14743
	Enhanced – Solar Gardens ≤ 250 KW (AC)	\$0.15743
	Standard	\$0.12431
Small General Service	Enhanced – Solar Gardens > 250 KW (AC)	\$0.14431
	Enhanced – Solar Gardens ≤ 250 KW (AC)	\$0.15431
	Standard	\$0.09914
General Service	Enhanced – Solar Gardens > 250 KW (AC)	\$0.11914
	Enhanced – Solar Gardens ≤ 250 KW (AC)	\$0.12914

(Continued on Sheet No. 9-65)

Date Filed: 03-02-15 By: Christopher B. Clark Effective Date: 04-14-15

President, Northern States Power Company, a Minnesota corporation

Northern States Power Company, a Minnesota corporation Minneapolis, Minnesota 55401 MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2

SOLAR*REWARDS COMMUNITY PROGRAM (Continued)

Section No. 9 Original Sheet No. 64.1

RATE (Continued)

The Standard Bill Credit is the applicable retail rate in effect at the time of energy generation.

The Enhanced Bill Credit is the sum of the applicable Standard Bill Credit and the Commission approved REC pricing. A Solar*Rewards Community garden electing to sell its RECs (via the Enhanced Bill Credit) to the Company for subscribed energy shall be at the Commission approved REC price in place on the date the garden's application is considered by the Company to be complete.

The REC price pertaining to an individual garden shall remain fixed for the entire 25-year contract period. Subsequent Commission approved REC prices shall only apply to new garden applications.

(Continued on Sheet No. 9-65)

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President and CEO of Northern States Power Company, a Minnesota corporation

Docket No. E002/M-13-867 Order Date: 09-17-14

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MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2

SOLAR*REWARDS COMMUNITY PROGRAM (Continued)

Section No. 9 Original Sheet No. 65

RATE (Continued)

The Company will buy (through Bill Credits to the subscribers) all subscribed energy generated by the Community Solar Garden and delivered to the Company during a particular calendar production month at the Bill Credit Rate. Each subscriber to the Solar*Rewards Community Program will receive a Bill Credit at the Bill Credit Rate for electricity generated attributable to the subscriber's subscription. Each subscriber will also be charged for all electricity consumed by the subscriber at the applicable rate schedule for sales to that class of customer. If the Bill Credit exceeds the amount owed in any billing period, the excess portion of the Bill Credit in any billing period shall be carried forward and credited against all charges. All Bill Credits must be carried forward for at least a 12-month cycle. The Company shall purchase all Bill Credits with the billing statement which includes the last day in February and restart the credit cycle on the following period with a zero credit balance. Consistent with Minn. R. 7820.3800, Subp. 2, the purchase of the Bill Credits will only be made when the Bill Credit amount is more than \$1 due for an existing customer or \$2 or more due a person or legal entity who is no longer a customer of the Company.

TERMS AND CONDITIONS

The Company offers a service to provide Bill Credits to subscribers of a Solar*Rewards Community garden for solar photovoltaic energy delivered to the Company which complies with the following requirements:

- a. The garden must not have less than five (5) subscribers;
- b. No single subscriber may have more than a forty (40) percent interest in the garden;
- c. The garden must have a nameplate capacity of no more than one (1) megawatt alternating current (AC);
- d. Each subscription shall be sized to represent at least two hundred (200) watts of the garden's generating capacity;
- e. Each subscription shall be sized so that when combined with other distributed generation resources serving the premises of each subscriber that the subscription size does not exceed one hundred twenty (120) percent of the average annual consumption of electricity (over the prior twenty four (24) months) by each subscriber to which the subscription is attributed (based on the annual estimated generation of the PV System as determined by PVWATTS). If twenty four (24) months of historical electric energy consumption data is not available for a particular subscriber, the Company will calculate the estimated annual electric energy consumption as follows: if there is less than twenty four (24) months but four (4) months or more of consumption history, the average monthly consumption is multiplied by twelve (12) to figure the yearly consumption. In cases where there is less than four (4) months of consumption history, home usage is estimated based on the historical average energy use of homes of a similar size. Homes are assumed to have central A/C, electric appliances, and natural gas water and space heating. For commercial properties and all properties over 4,500 square feet with less than four (4) months of consumption history, the subscriber must submit an energy audit (HERS Rating or similar) or load calculations for the property stating the estimated annual consumption. Load calculations must be documented and sent to the Solar*Rewards Community Program Manager for approval. The compliance check by the Company with this 120% rule will be performed once at the beginning of a subscription and later only if the subscriber changes his or her subscription size or relocates to a new address.

(Continued on Sheet No. 9-66)

Date Filed: 09-30-13 By: David M. Sparby Effective Date: 09-17-14

President and CEO of Northern States Power Company, a Minnesota corporation

Docket No. E002/M-13-867 Order Date: 09-17-14

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Docket No. E999/CI-15-755 Information Request MPUC-005 Attachment A.1., Pages 70 of 121

Northern States Power Company, a Minnesota corporation Minneapolis, Minnesota 55401

MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2

SOLAR*REWARDS COMMUNITY PROGRAM (Continued)

Section No. 9 1st Revised Sheet No. 66

TERMS AND CONDITIONS (Continued)

- f. The garden must be located in the service territory of the Company;
- g. Each subscriber to the garden must be a retail customer of the Company and each must be located in the same county or a county contiguous to where the garden is located;
- h. All energy produced by the garden, and all capacity attributable to the garden, shall be assigned to the Company;
- i. All Renewable Energy Credits (RECs) shall be assigned to the Company under any or all of the following circumstances:
 - (1) Where the garden or any person or entity on its behalf has received or intends to accept a Made in Minnesota benefit, as defined as defined in Minn. Stat. § 216C.411, pursuant to Minn. Stat. §§ 216C.411 through 216C.415.
 - (2) Where the garden or any person or entity on its behalf has received or intends to accept a Solar*Rewards benefit, as defined in Minn. Stat. § 116C.7792.
 - (3) Where the garden or any person or entity on its behalf has elected to transfer the solar RECs to the Company under the Standard Contract for Solar*Rewards Community.
 - (4) Where a Value of Solar rate is applicable to the garden.
 - j. All terms and conditions apply as stated in the tariffed Standard Contract for Solar*Rewards Community between the Company and the garden operator (as may be varied by terms of any revised tariff, any amended contract or individually negotiated contract between the parties which has been approved or been deemed to have been approved by the Commission). Consistent with the Uniform Electronic Transactions Act, Minn. Stat. § 325L.01, et seq. and any successor thereto, electronic signatures on documents relating to the Solar*Rewards Community program are not required but may be allowed, such as applications to the program, the Standard Contract for Solar*Rewards Community, the Subscriber Agency Agreement and Consent Form, applications for interconnection under the Section 10 tariff, the Section 10 tariff Interconnection Agreement, and other forms and communications exchanged between the parties. However, the Company may still insist on original hard copy signatures on Letters of Credit, escrow documents, or other financial instruments associated with the program. Where electronic signatures are provided, they shall have the same effect as original signatures. Electronically stored versions of such documents shall have the same validity as the original.

(Continued on Sheet No. 9-66.1)

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President, Northern States Power Company, a Minnesota corporation

Docket No. E999/CI-15-755 Information Request MPUC-005 Attachment A.1., Pages 71 of 121

Northern States Power Company, a Minnesota corporation Minneapolis, Minnesota 55401

MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2

SOLAR*REWARDS COMMUNITY PROGRAM (Continued)

Section No. 9 Original Sheet No. 66.1

TERMS AND CONDITIONS (Continued)

- k. Where the garden operator has begun the application process the following provisions apply:
 - (1) Prior to the Company processing the application, the garden operator must submit an application fee of \$1,200 to the Company. This application fee may be by check or wire transfer. The application fee is meant to cover the cost to the Company of processing the application.
 - (2) Prior to the Company processing the application, the garden operator must submit a deposit of an amount equal to \$100/kW to the Company. This deposit may be submitted by check or wire transfer. Within thirty (30) days after either the project is completed or the date when the garden operator informs the Company that it will no longer continue pursuing completion of the garden project, or if the project is not completed within the twenty four (24) month timeline (including day-for-day extensions) detailed below, the Company shall return to the garden operator the deposit. When the deposit qualifies to be returned to the garden operator, it shall also include interest. Consistent with Minn. Stat. § 325E.02, the rate of interest will be set annually and will be equal to the weekly average yield of one-year United States Treasury securities adjusted for constant maturity for the last full week in November. The interest rate will be rounded to the nearest tenth of one percent. The rate of interest announced by the Commissioner of Commerce on or about December 15 of each year will be the rate of interest that will be paid on deposits returned during the subsequent calendar year.
- I. Notwithstanding any other law, neither the garden operator nor the subscribers to a garden facility shall be considered a utility solely as a result of their participation in the garden facility.

(Continued on Sheet No. 9-67)

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President, Northern States Power Company, a Minnesota corporation

Docket No. E999/CI-15-755 Information Request MPUC-005 Attachment A.1., Pages 72 of 121

Northern States Power Company, a Minnesota corporation Minneapolis, Minnesota 55401

MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2

SOLAR*REWARDS COMMUNITY PROGRAM Section No. 9 (Continued) 1st Revised Sheet No. 67

APPLICATION TO THE PROGRAM

Applications will be accepted and processed on a first-ready, first-served basis. Applications are deemed "Ready" once they meet the following criteria:

- (i) Applications are considered submitted (and will advance to engineering review) once the applicant furnishes all requested documents and information in the Solar*Rewards Community online application system, including:
 - a. the applicant's contact information,
 - b. garden information including system location and specifications,
 - c. application fee and deposit,
 - d. engineering documents, including one-line diagrams, site plan, and Interconnection Application;
- (ii) The applicant has submitted evidence the project has obtained or arranged appropriate insurance or has entered into an insurance broker agreement;
- (iii) The applicant has submitted evidence of control of the Community Solar Garden site;
- (iv) The applicant has submitted evidence of projected subscription at the time of construction;
- (v) The applicant has submitted evidence the project proposal complies with all applicable material terms of the tariff and standard contract and any additional considerations that the Company, solar garden developers, the Minnesota Department of Commerce, the Office of the Attorney General, and interested parties participating in the workgroup have agreed to include in the plan; and
- (vi) The applicant has submitted signed agreements, including Standard Contract for Solar*Rewards Community and the Interconnection Agreement.

Once the operator's application has been submitted according to step (i), the Company will determine its completeness within thirty (30) days for purposes of advancing for engineering review. The Company will approve or reject an operator application within sixty (60) days of determining completeness unless the applicant has agreed to an extension. Where the Company has timely rejected an application, the Company will allow the applicant to provide additional documents or information and the sixty (60) day timeframe will begin anew for the Company to accept or reject the application.

After the Company determines initial application completeness, the applicant will submit information according to steps (ii) – (vi). The applicant shall complete the project within twenty-four (24) months from the Company finding that the application is complete. Failure of the Company to meet the timeframes for completing engineering studies and interconnection cost estimates set forth in the Commission's September 28, 2004 Order in Docket No. E999/CI-01-1023 as implemented in Section 10 of the Company's tariff will extend this twenty-four (24) month period on a day-for-day basis. If the project is not completed within this twenty-four (24) month period (including any day-for-day extension referenced above), then the Company will return the deposit and the garden operator, if it still intends to proceed with the project, will need to reapply and submit a new application fee and deposit.

(Continued on Sheet No. 9-68)

Date Filed: 12-18-15 By: Christopher B. Clark Effective Date: 12-18-15

President, Northern States Power Company, a Minnesota corporation

MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2

SOLAR*REWARDS COMMUNITY PROGRAM Section No. 9 (Continued) 1st Revised Sheet No. 68

ADDITIONAL TERMS AND CONDITIONS

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- 1. <u>Definitions</u>. As used in this section, the following definitions apply:
 - a. Community Solar Gardens shall be considered "Co-Located" if they exhibit characteristics of a single development, such as:
 - i. common ownership structure,
 - ii. an umbrella sale arrangement,
 - iii. shared interconnection,
 - iv. revenue-sharing arrangements, and
 - v. common debt or equity financing.

Community Solar Gardens will not be considered Co-located solely because the same person or entity provided tax equity financing for the garden or garden project.

- b. "Co-Location Determination Notice" means a notice sent by the Company to applicant that the Company has determined that the application(s) for a Community Solar Garden Site exceed the Co-Location Limits.
- c. "Co-Location Limits" means the following:
- i. For any Community Solar Garden application submitted (i.e., applicant has entered enough information into the CSG Application System for an Solar*Rewards Community # to be assigned) on or prior to September 25, 2015, no more than 5 MW (AC) will be allowed at a Community Solar Garden Site in the aggregate.
- ii. For any application submitted after September 25, 2015, through September 15, 2016, no more than 1 MW (AC) will be allowed at a Community Solar Garden Site in the aggregate.
- d. "Community Solar Garden Site" means one Community Solar Garden or where two or more Community Solar Gardens are Co-Located.
- e. "Engineering Scoping Study" means the engineering scoping study per Steps 3-4 of the Section 10 tariff which provides an indicative cost estimate.
- f. "Initial Application Completeness" means the requirements in tariff Section 9, sheet 67, step (i).
- g. "Initial Revised Tariff Effective Date" means December 18, 2015.
- h. "Interconnection Agreement Time Line" means: Where the conditions described in pars. 5-8 below are met, but beginning no sooner than 10 business days after the Initial Revised Tariff Effective Date the Company will within 40 days on a best efforts basis, and, but not more than 50 business days, provide an Interconnection Agreement. The Interconnection Agreement will then need to be signed by the applicant and countersigned by the Company.
- i. "Study Queue" means the priority sequencing of Interconnection Applications for a certain feeder or substation waiting to be studied, or in fact being studied, as part of the Engineering Scoping Study, or which have completed the Engineering Scoping Study and which do not yet have an Interconnection Agreement signed by the Company.
- j. "Study Queue Position" means the applicant's place in the Study Queue.

(Continued on Sheet No. 9-68.1)

Date Filed: 12-18-15 By: Christopher B. Clark Effective Date: 12-18-15

President, Northern States Power Company, a Minnesota corporation

Docket No. E002/M-13-867 Order Date: 12-15-15

J.

Section No.

Original Sheet No.

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68.1

Northern States Power Company, a Minnesota corporation Minneapolis, Minnesota 55401

MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2

SOLAR*REWARDS COMMUNITY PROGRAM (Continued)

- 2. <u>Scale Down</u>. Any applicant with application(s) for a Community Solar Garden Site which in the aggregate exceed the Co-Location Limits, or who otherwise desires to scale down a Community Solar Garden Site to a lower capacity, must fulfill all of the following requirements:
 - a. Applicant must identify which Community Solar Garden applications comprise the new lower capacity compliant with the Co-Location Limits. In other words, the applicant must specify which applications it will pursue under the Co-Location Limits.
 - b. Applicant must submit a new site plan and one-line diagram showing each point of common coupling for the Community Solar Garden(s) comprising the scaled down Community Solar Garden Site, meter locations, and the point of interconnection (i.e., point from where the Company's existing system would be extended). These documents must be approved by the Company.

The process of scaling down does not alter Study Queue Position, except as provided below.

- 3. Expedited Ready. Once the applicant receives notification of Initial Application Completeness, and prior to the Company initiating the Engineering Scoping Study, the applicant must show that each application is "Expedited Ready". An application is "Expedited Ready" as of the date that all of the factors below are satisfied. The requirements for being considered Expedited Ready are:
 - a. The application has received Company notice of Initial Application Completeness.
 - b. Applicant has submitted a complete Appendix C (sheets 105-110 of the Section 10 tariff).
 - c. Applicant has paid to Company the Engineering Scoping Study fee.
 - d. If the size of the Community Solar Garden Site is greater than 1 MW (AC), applicant has shown that each Community Solar Garden application comprising the Community Solar Garden Site has met the requirements in par. 8 below.
 - e. In the situations as specified below in pars. 5.c. (applicant does not appeal to the Department the Company Co-Location Determination Notice), 7.c. (the Department or Commission rule against the applicant on its challenge to the Company Co-Location Determination Notice), 8.c. (the applicant has failed to show that the applications within a Community Solar Garden Site are making progress), or 2 (applicant has chosen to scale down), the applications within the Community Solar Garden Site must be scaled down consistent with the provisions of par. 2 above.

At the request of the applicant, the Company will endeavor to provide reasonable and timely certification of the applicant's compliance or non-compliance with this provision. The Company will provide notice to the applicant via email as to the date the application is Expedited Ready and the Interconnection Agreement Time Line begins.

(Continued on Sheet No. 9-68.2)

Date Filed: 12-18-15 By: Christopher B. Clark Effective Date: 12-18-15

President, Northern States Power Company, a Minnesota corporation

Docket No. E002/M-13-867 Order Date: 12-15-15

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MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2

SOLAR*REWARDS COMMUNITY PROGRAM (Continued)

Section No. 9 Original Sheet No. 68.2

4. Appeals relating to Co-Location Determination

a. The Company provided a Co-Location Determination Notice to certain applicants on or about August 18, 2015. On or before 10 business days after the Initial Revised Tariff Effective Date the applicant must submit via email a dispute to the Department of Commerce (Department) on the Company's Co-Location Determination Notice sent on or about August 18, 2015. The Company must be copied on this email for this formal dispute resolution request to be effective. Informal efforts to resolve disputes with the Company may be made at the Applicant's discretion prior to formally initiating the dispute process.

b. If the Company provides any subsequent Co-Location Determination Notice(s), the applicant has the later of 10 business days from each such subsequent notice, or 10 business days after the Initial Revised Tariff Effective Date, to submit via email such a dispute to the Department for the Co-Location which is the subject of such notice. The Company will check for compliance with Co-Location size at two times: 1.) in addition to the notices sent on August 18, 2015, on or about the time of the determination of the Initial Application Completeness; and 2.) on or before the Date of Commercial Operation. A Company signed Standard Contract for Solar*Rewards Community prevents the Company from subsequently challenging compliance with the Co-Location Limits for the Community Solar Garden Site at issue. The applicant shall provide as part of this email all information and documents it relies upon for its position. The Company must be copied on this email for this request to be effective.

- c. By the later of the Initial Revised Tariff Effective Date or 5 business days of each of the above applicant dispute(s) submitted to the Department, the Company shall respond to the Department with an email containing all information and documents the Company relies upon for its position. A dispute delivered via email after 4:30 pm (central standard or central daylight savings time, as applicable) shall be considered to be delivered on the next business day. The applicant must be copied on this email for this response to be effective.
- d. There is an expectation that the Department will issue its determination on each such Co-Location dispute within 30 calendar days of the dispute being submitted to it.
- e. The applicant or the Company may appeal to the Commission the Department determination by making a filing in Docket No. 13-867 (or such other docket designated by the Commission) within 5 business days of the Department determination. A Department determination delivered after 4:30 pm (central standard or central daylight savings time, as applicable) shall be considered to be delivered on the next business day. Such an appeal should include all information relied upon by that party. Responses to any such appeal are due 10 business days from the date of the filing of the appeal. No reply to the response will be allowed.

(Continued on Sheet No. 9-68.3)

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SOLAR*REWARDS COMMUNITY PROGRAM

(Continued)

Section No. 9 Original Sheet No. 68.3

5. Interconnection Agreement Time Line Review

- a. One of the requirements to be Expedited Ready above is that the applicant has paid to Company the Engineering Scoping Study fee. To help inform the applicant of the amount owed and to give the applicant time to make this payment, on or before September 18, 2015, the Company notified each applicant of the dollar amount which the applicant owes for the Engineering Scoping Study fee for each Community Solar Garden Site which by September 4, 2015, had received Company notice of Initial Application Completeness. For applications which receive Company notice of Initial Application Completeness after September 4, 2015, the Company will notify applicant of the dollar amount owed for the Engineering Scoping Study fee within 10 business days of the Initial Application Completeness.
- b. The notice provided by the Company in par. 5.a. above as to the dollar amount of the Engineering Scoping Study fee will be based on the size and complexity of the Community Solar Garden Site as asserted by the applicant as of September 4, 2015, or when Company provides a notice of Initial Application Completeness. For example, if the applicant maintains that it does not have a 10 MW Community Solar Garden Site, but instead has two separate 5 MW Community Solar Garden Sites, the notice will be based on the applicant having two separate 5 MW Community Solar Garden Sites. Each notice will be for a study based on an asserted Community Solar Garden Site size of 5 MW or less. Each Community Solar Garden Site will be charged an independent Engineering Scoping Study fee that is non-refundable once the study begins. The Company by providing such notice will not be waiving its position that the Community Solar Garden Site size exceeds the Co-Location Limits.
- c. If applicant receives a Company Co-Location Determination Notice but does not timely submit a dispute to the Department as provided for in par. 4 above, and does not scale down its applications per par. 3 above, the applications will not be considered to be Expedited Ready and the application(s) will not be further considered as part of the Solar*Rewards Community program until it meets the requirements for being Expedited Ready.
- d. If applicant receives a notice of the Company's Co-Location Determination Notice and timely submits a dispute to the Department as provided for in par. 4 above, the application can be considered to be Expedited Ready provided that the other requirements for being Expedited Ready are met.
- e. Each application which is Expedited Ready on or before 10 business days following the Initial Revised Tariff Effective Date will be studied based on its pre-existing Study Queue position.

(Continued on Sheet No. 9-68.4)

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SOLAR*REWARDS COMMUNITY PROGRAM (Continued)

Section No. 9 Original Sheet No. 68.4

5. <u>Interconnection Agreement Time Line Review</u> (Continued)

- f. If an application becomes Expedited Ready after 10 business days following the Initial Revised Tariff Effective Date, its Study Queue position will be behind all others Expedited Ready prior to it. If there are non-garden applications in the Study Queue, they will maintain their queue position and be processed along the timelines associated with the Section 10 tariff. The non-garden applications at or under 5 MW (AC) in capacity will not impact, and not be subject to, the Interconnection Agreement Time Line for the Community Solar Garden applications. A non-garden application above 5 MW (AC) capacity will be studied according to the timelines and terms in the Section 10 tariff (including the 10 MW (AC) size limitation), and any Community Solar Garden application behind it in queue will be studied, and the Interconnection Agreement Time Line will start, only after the 5+MW (AC) non-garden application has completed its Section 10 engineering studies. Any interconnection application which was associated with a Community Solar Garden application at the time of its filling may drop out of the Community Solar Garden program and continue as a non-garden distributed generation interconnection application and maintain its place in the Study Queue. Every non-garden interconnection application is subject to the Section 10 terms and timelines, and is not subject to the "Material Upgrade" limitations below.
- g. Except as provided in par. 5.h.ii. below, if the applicant makes a substantial modification to its application at any point after receiving notice of Initial Application Completeness, the process of engineering review will begin again with a new Interconnection Agreement Time Line. Study Queue position will slip behind all others who are already Expedited Ready and a new Study Queue position will be determined when it is again Expedited Ready. Examples of "substantial modifications" include taking a design initially based on primary service and changing that to secondary service and vice-versa. Examples where there is no "substantial modifications" include changing panels or changes that result in no more than a plus or minus 10% difference in AC output from the originally approved design.
- h. Beginning on the 10th business day following the Initial Revised Tariff Effective Date, once a Community Solar Garden is Expedited Ready it will undergo Engineering Scoping Studies which will include among other matters the following:
 - i. The Company will determine whether a "Material Upgrade" to the Company network is needed to accommodate a Community Solar Garden. A Material Upgrade will not be performed. The material upgrade limitations in this section shall only apply to co-located community solar gardens.
 - aa. Material Upgrades that will not be performed are limited to the following:
 - New substation transformer
 - Upgrade substation transformer¹
 - Install new feeder bay
 - Install new overhead or underground feeder²
 - Changes that require a substation outage that materially affect service to customers or create an unreasonable operational risk

(Continued on Sheet No. 9-68.5)

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¹ A substation transformer upgrade is defined by the replacement of entire unit. Auxiliary relaying, instrumentation, and other minor upgrades do not fall in this category.

² This provision only applies to a switchgear substation. A switchgear substation is one that contains pre-manufactured feeder breaker assemblies.

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SOLAR*REWARDS COMMUNITY PROGRAM (Continued)

Section No. 9 Original Sheet No. 68.5

5. Interconnection Agreement Time Line Review (Continued)

h. Beginning with the Initial Revised Tariff Filing Date, once a Community Solar Garden is Expedited Ready it will undergo Engineering Scoping Studies which will include among other matters the following:_ (Continued)

bb. In addition, a Material Upgrade includes the following upgrades or additions resulting from the engineering indicative cost estimate which, in the aggregate (and not including computation of any applicable contribution in aid of construction (CIAC)) exceed \$1 million for a Community Solar Garden Site:

- Three-phase line extension on existing feeders
- Reconductor/build Line

For a material upgrade exceeding the \$1 million limitation applicable to (1) three-phase line extension on existing feeders and (2) reconductor/build line, the Company will provide the applicant with an itemized list of the cost inputs, including unit costs and any underlying data and documentation related to those unit costs, that comprise the Company's determination.

ii. If a Material Upgrade is needed, the Company will inform the applicant that the Community Solar Garden Site size cannot be accommodated. If the Company believes that it could accommodate a lower capacity at that location compliant with the Material Upgrade threshold, it will so inform the applicant. In such a situation, the applicant would be allowed to resize the applications, and the Community Solar Garden Site would proceed at the lower capacity without a change to its Study Queue position. If the Company makes an offer to the applicant to resize application(s) under these circumstances, the applicant will have 30 business days to do so. If the the applicant timely resizes application(s), the Company will proceed with completing the Engineering Scoping Study, and the timeline for completion of the Engineering Scoping Study will be extended by 30 business days.

iii. If no Material Upgrade is needed, the Company will develop and provide to the applicant an engineering indicative cost estimate as to the construction needed by the Company to accommodate the Community Solar Garden Site, along with providing to the applicant the total number of MWs ahead of it in the Study Queue at the time of providing the indicative cost estimate. No detailed estimates per Step 5 of the Section 10 tariff will be performed. The engineering indicative cost estimate will be provided to the applicant within the Interconnection Agreement Time Line. Applications becoming Expedited Ready at a later date will have the Interconnection Agreement Time Line begin when Expedited Ready. The Interconnection Agreement Time Line is subject to the provisions in par. 6 below.

i. Beginning with the Initial Revised Tariff Effective Date, once a Community Solar Garden is Expedited Ready, the Company will have the time in the Interconnection Agreement Time Line as defined above to provide an Interconnection Agreement for signature subject to the provisions in par.6 below. The Interconnection Agreement will then need to be signed by applicant and countersigned by the Company.

(Continued on Sheet No. 9-68.6)

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SOLAR*REWARDS COMMUNITY PROGRAM (Continued)

Section No. 9 Original Sheet No. 68.6

5. Interconnection Agreement Time Line Review (Continued)

- j. Notwithstanding the above, based on the applicant's Study Queue position after being Expedited Ready and the Company's general knowledge of the feeder or substation, if in the Company's judgment an Engineering Scoping Study would be a needless expense because a Material Upgrade such as a new or upgraded substation transformer would be needed to accommodate any portion of the proposed Community Solar Garden Site, then the Company may so inform the applicant and offer to refund to the applicant the Engineering Scoping Study fee without such a study being performed. However, if an Engineering Scoping Study is performed and the results show that a Material Upgrade is needed to accommodate any portion of the Community Solar Garden Site, the applicant is still responsible for the costs of that study as reflected in the Engineering Scoping Study fee which had been assessed. If an offer of refund is made to the applicant, and the applicant decides within 30 business days to reject the refund and have the Company proceed with the Engineering Scoping Study, then: 1.) the Company will proceed with the Engineering Scoping Study, and, 2.) the timeline for completion of the Engineering Scoping Study will be extended by 30 business days.
- k. Metering, monitoring and control is governed by the Section 10 tariff. However, the Company will develop a process to aid commissioning of community solar gardens prior to installation of a telecommunications upgrade between the Company's substation and its operational network if to do so would not affect the safety or reliability of the Company's system.

6. Conditions Precedent and Conditions to Signing Interconnection Agreement

- a. The Company will not provide an Interconnection Agreement for signature for a Community Solar Garden studied per par. 5 above to the applicant or to anyone behind the applicant in Study Queue, where the applicant has submitted to the Department a timely dispute on the Co-Location Limits, and:
 - i. The Department has not yet made a determination on the issue;
 - ii. The Department has determined the issue adverse to the Company, and either:
 - time to file a timely appeal to the Commission remains, or
 - the Company has filed a timely appeal to the Commission which is still pending, or
 - the Commission has issued an order adverse to the Company and the time to file a petition for rehearing or reconsideration has not expired, or
 - such a petition for rehearing or reconsideration has been filed and is pending.
- b. Where the applicant has submitted to the Department a timely dispute on the Co-Location Limits and either:
 - i. the Department rules in favor of the applicant and the time for filing an appeal to the Commission has expired without the Company bringing such an appeal to the Commission, or
 - ii. the Commission issues an order on such an appeal adverse to the Company and the time for a petition for rehearing has expired without such a petition having been filed, or the Commission issues an order denying such a petition filed by the Company

then the Company will have the later of the Interconnection Agreement Time Line as provided for in par. 5.i or the later of 5 business days from such determination or order in par. 6.b.i or ii to provide the Interconnection Agreement(s) for signature with the applicant and for those behind the applicant in Study Queue provided that the other requirements have been met. After signature by the applicant(s), the Interconnection Agreement(s) will need to be countersigned by the Company.

(Continued on Sheet No. 9-68.7)

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SOLAR*REWARDS COMMUNITY PROGRAM (Continued)

Section No. 9 Original Sheet No. 68.7

6. Conditions Precedent and Conditions to Signing Interconnection Agreement (Continued)

c. Following engineering review in par. 5 above, or par. 7 below, and subject to the provisions in pars. 6.a, 6.b, 8 and 9, the Company will, contingent on the following, provide an Interconnection Agreement for signature by the applicant to then be countersigned by the Company:

- i. Applicant has made appropriate payments to the Company for construction or provided appropriate letter of credit for unpaid balance, consistent with the tariffed Interconnection Agreement. For the applicant which is first in the Study Queue, payments and providing appropriate letter of credit for unpaid balance must be completed within 30 days of the Company notice to applicant of this payment which is due or the application will be removed from the Study Queue and the applicant will be required to start a new Community Solar Garden application if it later determines it wants to proceed. For any applicant which is second or further in the Study Queue, subject to the provisions of par. 6.c.iv. below, payments and providing appropriate letter of credit for unpaid balance must be completed within 30 days of the later of:
 - 1.) Company notice to applicant of the payment amount which is due; or,
 - 2.) Company notice to applicant that all applicants above it in the Study Queue have either signed an Interconnection Agreement or have let the 30 day period lapse without signing an Interconnection Agreement.

or the application will be removed from the Study Queue and the applicant will be required to start a new Community Solar Garden application if it later determines it wants to proceed.

- ii. Applicant has fulfilled insurance requirements under the tariffed Interconnection Agreement.
- iii. The engineering indicative cost estimate is based on the assumption that all projects ahead of the application in the Study Queue and already studied and passing engineering review will have a signed Interconnection Agreement and will proceed with all distributed generation capacity which the Company studied for those other projects. Note: If any Community Solar Garden application ahead of it in the Study Queue and so approved decides not to proceed with an Interconnection Agreement, the actual costs of engineering interconnection construction for the applicant's Community Solar Garden could be markedly different from the engineering indicative cost estimate. To help the applicant to assess the risk of this, the Company will provide to the applicant the total number of MWs ahead of it in the Study Queue at the time of providing the indicative cost estimate.
- iv. Where another Engineering Scoping Study needs to be performed for any applicant later in the Study Queue on account of an applicant ahead of it deciding not to proceed with an Interconnection Agreement, the Company will not charge an additional Engineering Scoping Study fee for those in the Study Queue behind the applicant which decided not to proceed with a signed Interconnection Agreement. Any such additional Engineering Scoping Study will take time to develop and will be completed within 30 business days after the deadline for the applicant next ahead of it in the Study Queue to sign an Interconnection Agreement without one being signed. Once applicant receives the results of this additional Engineering Scoping Study, payments and providing appropriate letter of credit for unpaid balance must be completed within 30 days after Company notice to applicant of the payment amount which is due, or the application will be removed from the Study Queue and the applicant will be required to start a new Community Solar Garden application if it later determines it wants to proceed.

(Continued on Sheet No. 9-68.8)

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SOLAR*REWARDS COMMUNITY PROGRAM (Continued)

Section No. 9 Original Sheet No. 68.8

6. Conditions Precedent and Conditions to Signing Interconnection Agreement (Continued)

- d. The Company will countersign a valid applicant-signed Interconnection Agreement within 15 business days of receiving a signed Interconnection Agreement from the applicant and applicant has provided all prerequisites, including the following: 1.) paid at least 1/3 of the Indicative Cost Estimate; 2.) provided a Letter of Credit in a form acceptable to the Company for the remaining portion of the Indicative Cost Estimate; and 3.) provided appropriate insurance documentation.
- e. The Company will sign the tariffed Standard Contract for Solar*Rewards Community for an applicant who so qualifies at about the time that the production meter is being installed, provided that the applicant has paid at least 2/3 of the Indicative Cost Estimate, has provided appropriate proof of insurance, and complies with the Co-Location Limits.

7. Procedures Following Co-Location Ruling Adverse to Applicant on Co-Location Limits Issue

- a. A "Department Co-Location Ruling Adverse to Applicant" is where applicant has timely submitted via email a dispute to the Department per par. 4 above on the Company's Co-Location Determination Notice, and the Department makes a determination adverse to the applicant (regardless of whether applicant has filed an appeal to the Commission).
- b. A "Co-Location Final Ruling Adverse to Applicant" is where applicant has timely submitted via email a dispute to the Department per par. 4 above on the Company's Co-Location Determination Notice, and the Department makes a ruling in favor of the applicant, but the Company has appealed this decision to the Commission and the Commission rules on any such appeal inconsistent with allowing the applications for a Community Solar Garden Site to be processed under the program as advocated by the applicant and either the time to file a petition for rehearing or reconsideration of the Commission order has expired without such a petition being filed or such a petition has been denied.
- c. Where there has been either a Department Co-Location Ruling Adverse to Applicant or a Co-Location Final Ruling Adverse to Applicant, the Interconnection Agreement Time Line applicable to the applicant and to those behind the applicant in the Study Queue will be restarted. The Community Solar Garden Sites subject to either such ruling will need to be scaled down by the applicant and otherwise become Expedited Ready. To be considered Expedited Ready at this step, the applicant needs to comply with the requirements in par. 3 above, plus it needs completion of the requirements of par. 2 to appropriately scale down the project. If the applicant for the Community Solar Garden Site at issue has already paid the Engineering Scoping Study fee, it will need to pay an additional Engineering Scoping Study fee as a new study will be required not only for it but also for those behind it in the Study Queue. The new Engineering Scoping Study fee assessed to the applicant will be based on the Company's actual costs for conducting not only the new Engineering Scoping Study for it, but also for the new Engineering Scoping Studies for those behind it in the Study Queue.

(Continued on Sheet No. 68.9)

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SOLAR*REWARDS COMMUNITY PROGRAM (Continued)

Section No. 9 Original Sheet No. 68.9

7. Procedures Following Co-Location Ruling Adverse to Applicant on Co-Location Limits Issue (Continued)

- d. The applicant will have 5 business days from the earlier of the:
 - i. date of the Department Co-Location Ruling Adverse to Applicant, or
 - ii. the date the petition for rehearing or reconsideration of the Co-Location Final Ruling Adverse to Applicant Commission has expired without such a petition being filed or such a petition has been denied

to scale down its project and to otherwise become Expedited Ready to maintain its position in the Study Queue. If the applicant is not Expedited Ready within this time frame, it will be liable to pay the Company's costs to restudy those which had been behind it in Study Queue. If it is Expedited Ready for its scaled down project later than 5 business days from the earlier of the above dates it will rejoin the Study Queue in a position after all others who were Expedited Ready before it. It can not become Expedited Ready until it pays for the costs to restudy those which had been behind it in the Study Queue.

- e. The Interconnection Agreement Time Line will restart as follows:
- i. If the applicant is Expedited Ready within this 5 business day time frame, the Interconnection Agreement Time Line will restart for it and for those behind it in the Study Queue 5 business days after it being Expedited Ready.
- ii. If the applicant is not Expedited Ready within this 5 business day time frame, the Interconnection Agreement Time Line will restart for those behind it in the Study Queue after the expiration of this 5 business day time frame. The Interconnection Agreement Time Line for the application will restart once it is Expedited Ready.
- iii. The Company will use best efforts to shorten the time frame for providing Interconnection Agreement(s) for signature by the applicant followed by countersignature by the Company in this circumstance.

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(Continued on Sheet No. 9-68.10)

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SOLAR*REWARDS COMMUNITY PROGRAM (Continued)

Section No. 9 Original Sheet No. 68.10

8. Requirement to Show Progress for Co-Located Sites above 1 MW (AC)

a. For Community Solar Garden Site applications where more than 1 MW(AC) are Co-Located and as of June 1, 2015 had received Company notice of Initial Application Completeness, applicant must have demonstrated to the Company three of the following by September 1, 2015: (a) site control (e.g., official documentation of deed, purchase agreement, lease or option to lease or buy; official documents or detailed proof of recordation will be accepted), (b) sufficient project financing (e.g., official documentation of letter of intent from financer to finance costs to bring Community Solar Garden to operation), (c) possession of required local permits (e.g., official land use or building permits from the applicable permitting authority), (d) providing a certification from an officer of the applicant affying that the project complies with the requirements set forth in Federal Energy Regulatory Commission Form 556 (e.g., signed copy of FERC Form 556), (e) subscriptions for at least fifty (50) percent of project output (e.g., valid subscriptions, including a signed agency agreement, loaded in the Solar*Rewards Community application system for at least 50 percent of the Community Solar Garden's output), and (f) equipment and panel procurement contracts (e.g., purchase order, procurement contract or receipt for equipment needed to operate solar system of the applicant's Community Solar Garden size), and (g) insurance (e.g., proof of liability insurance).

- b. For Community Solar Garden Site applications where more than 1 MW(AC) are Co-Located, but which as of June 1, 2015, had not received Company notice of Initial Application Completeness, the Community Solar Garden Site applicant must have demonstrated to the Company three of the factors in the above sub-paragraph and this demonstration must have occurred within 90 days of receiving Company notice of Initial Application Completeness.
- c. If the Company determines that the documentation provided under pars. 8.a. or 8.b. above to be inadequate, the Company will inform the applicant via email. The applicant will then have up to 10 business days from the later of the notification or the deadline to provide adequate documentation. If the documentation remains insufficient, the Company will cancel all Co-Located applications in excess of 1 MW (AC) that lack appropriate documentation.

(Continued on Sheet No. 9-68.11)

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SOLAR*REWARDS COMMUNITY PROGRAM (Continued)

Section No. 9 Original Sheet No. 68.11

9. Requests for Independent Engineer to Resolve Material Disputes Affecting Interconnection Application (Continued)

a. Any applicant may submit interconnection disputes materially affecting the application to an independent engineer selected or approved by the Department to ensure neutrality. The independent engineer shall be available on a standing basis to resolve disputes on the study process, including material disputes related to the Company's determination of application completeness, timeliness of application and study processing, and the cost and necessity of required study costs and distribution system upgrades. The applicant requesting such an independent engineer review shall share 50% of the costs of the independent engineer. The safety and reliability of the Company's system should be given paramount consideration in any analysis. The review of the independent engineer must consider industry standards for interconnection, including the current version of the National Electric Safety Code, National Electric Code as adopted in Minnesota, FERC rules, NERC rules, Minnesota rules and Minnesota Interconnection Standards and must consider, on a case-by-case basis, the Company's standards for building, safety, power quality, reliability and long-term stable operations for building facilities even where such standards are more restrictive than the minimum requirements set forth in the codes, standards and rules. Continuity and consistency of using Company standards is paramount for employee safety. The standards employed by the Company (and as used by the independent engineer) should not vary, where applicable, from the standards which the Company uses when constructing, maintaining, or repairing its distribution network for purposes of providing service to its own retail customers. However, if the independent engineer determines that a particular piece of equipment or engineering alternative proposed by Xcel is more restrictive than industry standards but does not discourage cogeneration or small power production, the Company may implement that alternative, if the Company pays the incremental cost in excess of the amount necessary to implement the industry standard. The additional incremental costs paid by Xcel cannot be included in the \$1 million material upgrade limit. Xcel would continue to have the burden of proof to show that it is reasonable for its ratepayers to pay for the costs of the more restrictive standards. This engineering review specifically excludes appeals relating to Co-Location Determination addressed in par. 4 above, and excludes disputes not related to the interconnection application such as disputes after interconnection has been achieved.

(Continued on Sheet No. 9-68.12)

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SOLAR*REWARDS COMMUNITY PROGRAM (Continued)

Section No. 9 Original Sheet No. 68.12

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- 9. Requests for Independent Engineer to Resolve Material Disputes Affecting Interconnection Application (Continued)
 - b. The applicant shall initiate such a request by submitting via email any such dispute to the Department. The Company must be copied on this email for this request to be effective. The submission of a such a dispute to the independent engineer may take place before the applicant is Expedited Ready, after being Expedited Ready but before a signed Interconnection Agreement, or after the Interconnection Agreement is signed but only related to issues occurring prior to initial energization of the Generation System.
 - c. Such a dispute which is submitted before the applicant is Expedited Ready or after the Interconnection Agreement is signed shall not affect Study Queue position.
 - d. A dispute which is submitted after an Interconnection Agreement is signed is limited to disputes on the actual costs incurred by the Company to interconnect the Community Solar Garden. A condition precedent to filing such a dispute is that the applicant must have first paid the amount in controversy. Such a dispute must be brought within 60 days of the date the bill is mailed or electronically sent by the Company under Section 10, Sheet 117, par. V.2.b.iii.
 - e. A dispute which is submitted after an application is Expedited Ready but before the Interconnection Agreement is signed may impact processing in the Study Queue for the applicant and for those behind the applicant in queue. If the issues presented to the independent engineer are in the Company's judgment so significant that they may impact the results of the engineering indicative cost study or impact as a practical matter how the Company studies the application or those in queue behind the applicant, then the Company may send notice to the applicant and to those behind the applicant in queue that it will not sign an Interconnection Agreement until the dispute raised to the independent engineer is resolved. Similarly, if the consequence of the independent engineer's determination (or any determination as affirmed or reversed by the Commission if any such appeal is taken) is that the scope of assumptions in the Engineering Scoping Cost study must be redone, then such studies will be redone and the Interconnection Agreement Time Line will be reset accordingly for all applications impacted by this determination.
 - f. Once a dispute is submitted, the independent engineer will determine what additional information is needed from the applicant and/or the Company and when that information is needed. Both the applicant and the Company shall be included on all emails and communications to and from the independent engineer. The independent engineer will make a determination of the issues in a written report which provides a description of the pertinent facts, the conclusions and basis for the conclusions.
 - g. There is an expectation that the independent engineer will issue its written determination on such a dispute within 30 calendar days of the dispute being submitted to it. The independent engineer will provide a copy of such report via email to both the applicant and the Company.

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SOLAR*REWARDS COMMUNITY PROGRAM (Continued)

Section No. 9 Original Sheet No. 68.13

9. Requests for Independent Engineer to Resolve Material Disputes Affecting Interconnection Application (Continued)

h. The applicant or the Company may appeal to the Commission the determination of the independent engineer by making a filing in Docket No. 13-867 (or such other docket as designated by the Commission) within 5 business days of the delivery of the independent engineer's written determination. A report delivered after 4:30 pm (central standard or central daylight savings time, as applicable) shall be considered to be delivered on the next business day. Such an appeal should include all information relied upon by that party. Responses to any such appeal are due 10 business days from the date of the filing of the appeal. No reply to the response will be allowed.

10. Capacity Screen

- a. Any Community Solar Garden applicant may enter into a reasonable and customary non-disclosure agreement with the Company to receive distribution infrastructure and load analysis on a per feeder basis, and study results for previously studied projects. A response to such an information request must be fulfilled within 15 business days of the request. Information requests may include feeder specific voltage, concurrent minimum and peak loading analysis, existing distributed generation under operation, amount of distributed generation in the interconnection queue or Study Queue, terminated maximum distance substation, and any other pertinent information for the purposes of interconnection.
- b. The response to the distribution infrastructure and load analysis on a per feeder basis will consist of the following:
 - i) Substation name
 - ii) Distance from Substation
 - iii) Substation transformer nameplate capacity
 - iv) Substation transformer minimum daytime load
 - v) Substation transformer maximum load
 - vi) Feeder name
 - vii) Feeder Voltage
 - viii) Feeder minimum daytime load
 - ix) Feeder maximum load
 - x) Presence of a voltage regulator
 - xi) Presence of a reclosure
 - xii) Distributed resources in operation per feeder and substation
 - xiii) Distributed energy resources in the interconnection queue or Study Queue per feeder and substation
 - xiv) Conductor size and material

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SOLAR*REWARDS COMMUNITY PROGRAM (Continued)

Section No. 9 Original Sheet No. 68

68.14

10. Capacity Screen (Continued)

c. The study results for previously studied projects will consist of the following when available:

- i) Distributed Energy Resource Type
- ii) Approximate POI distance from substation
- iii) Facility AC Nameplate Requested
- iv) Facility AC Nameplate Approved
- v) Non-unity DER Power Factor Required? (Y/N)
- vi) Line Reconductor or Rebuild Required? (Y/N)
- vii) Protection Upgrades Required? (Y/N)
- viii) Voltage Regulation Upgrades Required? (Y/N)
- ix) Date study results delivered

d. The applicant at the time of the request for this information must also pay a fee of \$250.00 per request, and each request is on a per feeder basis based on the specific location of a proposed Community Solar Garden Site. There is no requirement that there be an actual application submitted in the CSG Application System for the specific location of the proposed Community Solar Garden Site which is the subject of the request. The above 15 business day response time begins upon providing such a request along with the required payment.

11. Engineering Communication

Upon request of either party, the Company and any applicant for a Community Solar Garden shall each identify one point of contact with technical expertise for their organizations. Upon the request of either party, bi-weekly status calls shall be established.

12. Escrow

The Company will allow for the use of an escrow agreement for deposits made and will facilitate the transfer of deposits currently held by the Company into escrow upon the applicant's request and at the applicant's cost. Wherever this tariff or the Standard Contract for Solar*Rewards Community requires a deposit, those provisions shall be read to allow an escrow agreement as described below to qualify as a deposit. In such a situation, the Company will not pay any interest on the funds held in escrow, but instead the applicant's interest on those funds held in escrow will depend on the terms of the escrow agreement with the bank. All bank fees relating to the escrow shall be paid by the applicant.

a. The Company will allow an applicant to deposit the deposit for an application into an escrow account arrangement that the Company has arranged with a bank. If the applicant has already paid the deposit to the Company, then the Company will withdraw the applicable funds (together with any interest accrued to that time) from the amounts held by it on deposit and pay those funds into the escrow after execution of the escrow documentation.

(Continued on Sheet No. 9-68.15)

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MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2

SOLAR*REWARDS COMMUNITY PROGRAM (Continued)

Section No. 9 Original Sheet No. 68

68.15

Ν

12. Escrow (Continued)

- b. The Company will consent to applicant granting a security interest in funds on deposit in the escrow account.
- c. Different Community Solar Gardens from the same applicant may participate in the same escrow account provided that each separate Community Solar Garden is in a separate subaccount.
- d. If applicant (or any party acting on behalf of applicant, including any party to whom applicant has granted a security interest in the escrow funds) causes funds to be disbursed from the escrow account and as a result the funds on deposit in the escrow account are less than the amount required to be on deposit for the application, then applicant shall be deemed to have irrevocably requested the Company to withdraw such application(s) from the Solar*Rewards Community Program for each Community Solar Garden Site associated with that escrow account, and the Company shall terminate and cancel such application(s) unless the applicant cures this insufficient funds violation within 10 business days of it occurring. In such an uncured situation, any signed Interconnection Agreement will still be in place until terminated under the provisions of section VII of the Interconnection Agreement; however, the Generation System which is the subject of the Interconnection Agreement can not be used as part of the Solar*Rewards Community program.
- e. If the escrow agent shall disburse funds from the escrow account for the purpose of paying fees or other amounts due to escrow agent or any related party pursuant to the escrow documentation, and as a result the funds on deposit in the escrow account are less than an amount equal to ninety percent (90%) of the amount required to be on deposit for the application, then applicant shall be deemed to have irrevocably requested the Company to withdraw the application(s) from the Solar*Rewards Community Program for each Community Solar Garden Site associated with that escrow account, and the Company shall terminate and cancel such application(s) from the Solar*Rewards Community Program, unless the applicant cures this insufficient funds violation within 10 business days of it occurring. In such an uncured situation, any signed Interconnection Agreement will still be in place until terminated under the provisions of section VII of the Interconnection Agreement; however, the Generation System which is the subject of the Interconnection Agreement can not be used as part of the Solar*Rewards Community program.

(Continued on Sheet No. 9-68.16)

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Section No.

Original Sheet No.

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68.16

Northern States Power Company, a Minnesota corporation Minneapolis, Minnesota 55401

MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2

SOLAR*REWARDS COMMUNITY PROGRAM (Continued)

13. Divesting.

An applicant is not allowed to transfer the Study Queue Position of a Community Solar Garden application to a different entity for projects that exceed the applicable Co-Location Limits.

14. Cancellation for Non-payment of Application Fee or Deposit.

The following application fees and deposits (each referenced in tariff Section 9, Sheet 66.1) must be paid within 30 calendar days of an SRC application number being assigned for the application to continue as an active project:

- 1. Application Fee of \$1,200.
- 2. Deposit in the amount of \$100/kW.

If there is any untimely, incomplete, or non-payment of these amounts then the entire application will be cancelled automatically without further notice. The provisions in this paragraph 14 will become effective immediately upon the Initial Revised Tariff Effective Date. However, those applications with an SRC application number assigned prior to the Initial Revised Tariff Effective Date will have 30 calendar days after the Initial Revised Tariff Effective Date to make the payments referenced in this paragraph 14.

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President, Northern States Power Company, a Minnesota corporation

STANDARD CONTRACT FOR SOLAR*REWARDS COMMUNITY

Section No. 9 Original Sheet No. 69

("Community Solar Garden").

electricity generated in proportion to the size of the Subscription.

The Community Solar Garden Operator is prepared to generate electricity in parallel with the Company.

The Community Solar Garden is a facility that generates electricity by means of a ground mounted or roof mounted solar photovoltaic device(s) whereby a Subscriber to the Community Solar Garden receives a Bill Credit for the

DEFINITIONS

"Bill Credit" shall mean the dollar amount paid by the Company to each Subscriber as a credit on the Subscriber's retail electric service bill to compensate the Subscriber for its beneficial share of solar photovoltaic electricity produced by the Community Solar Garden and delivered to the Company from the Community Solar Garden.

"Bill Credit Rate" shall mean the then current applicable Bill Credit Rate as found in the Company's rate book applicable to the Solar*Rewards Community Program. The Bill Credit Type is either the "Standard" Bill Credit or "Enhanced" Bill Credit found at that sheet in the rate book. The Standard Bill Credit is based on the applicable retail rate, which shall be the full retail rate, including the energy charge, demand charge, customer charge and applicable riders, for the customer class applicable to the Subscriber receiving the credit, and shall not reflect compensation for RECs. The "Enhanced" Bill Credit found at that sheet in the rate book is the sum of the Standard Bill Credit and the REC price and is the applicable Bill Credit Rate only where the Community Solar Garden Operator has made an election under Section 14.iii of this Contract to transfer the solar RECs to the Company. The REC prices embedded within the Enhanced Bill Credit are fixed for the duration of the term of this Contract and are fixed at the REC price in place at the time the Community Solar Garden has filed a completed application. Accordingly, the Standard and Enhanced Bill Credit rates will change over the term of this Contract and the Bill Credit Rate will be based on the then-current Standard or Enhanced Bill Credit as provided for in this Contract, but the REC value embedded within the Enhanced Bill Credit will not change during the Contract term. Once a Standard or Enhanced Bill Credit applies, that Bill Credit Type applies for the term of the Contract.

(Continued on Sheet No. 9-70)

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Docket No. E999/CI-15-755 Information Request MPUC-005 Attachment A.1., Pages 91 of 121

Northern States Power Company, a Minnesota corporation Minneapolis, Minnesota 55401

MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2

STANDARD CONTRACT FOR SOLAR*REWARDS COMMUNITY (Continued)

Section No. 9 1st Revised Sheet No. 70

"Community Solar Garden Allocation" shall mean the monthly allocation, stated in Watts direct current (DC) as a portion of the total nameplate capacity of the Community Solar Garden, applicable to each Subscriber's Subscription reflecting each Subscriber's allocable portion of photovoltaic electricity produced by the Community Solar Garden in a particular Production Month.

"Community Solar Garden Operator" is identified above and shall mean the organization whose purpose is to operate or otherwise manage the Community Solar Garden for its Subscribers. A Community Solar Garden Operator may be an individual or any for-profit or non-profit entity permitted by Minnesota law.

"Community Solar Garden Location" is the location of the single point of common coupling located at the production meter for the Community Solar Garden associated with the parcel or parcels of real property on which the PV System will be constructed and located, including any easements, rights of way, and other real-estate interests reasonably necessary to construct, operate, and maintain the garden. Multiple Community Solar Garden Locations may be situated in close proximity to one another in order to share in distribution infrastructure.

"Community Solar Garden Statutory Requirements" are based on the provisions in Minn. Stat. § 216B.1641 and Minn. Stat. § 216B.1691, and for purposes of this Contract mean the following:

- a. The Community Solar Garden must have not less than five (5) Subscribers;
- b. No single Subscriber may have more than a forty (40) percent interest in the Community Solar Garden;
- c. The Community Solar Garden must have a nameplate capacity of no more than one (1) megawatt alternating current (AC);
- d. Each Subscription shall be sized to represent at least two hundred (200) watts of the Community Solar Garden's generating capacity;
- e. Each Subscription shall be sized so that, when combined with other distributed generation resources serving the premises of each Subscriber, the Subscription size does not exceed one hundred twenty (120) percent of the average annual consumption of electricity over the prior twenty four (24) months by each Subscriber to which the Subscription is attributed (based on the annual estimated generation of the PV System as determined by PVWATTS), provided that if historical electric energy consumption data is not available for a particular subscriber, the Company will calculate the estimated annual electric energy consumption under the process detailed in the Company's rate book applicable to the Solar*Rewards Community Program.
- f. The Community Solar Garden must be located in the service territory of the Company;
- g. Each Subscriber to the Community Solar Garden must be a retail customer of the Company and each must be located in the same county or a county contiguous to the Community Solar Garden Location; and,
- h. Customers who are exempt from the Solar Energy Standard (SES) under Minn. Stat. § 216B.1691, subd. 2(f)d, shall not participate in or subscribe to Community Solar Gardens.

(Continued on Sheet No. 9-71)

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STANDARD CONTRACT FOR **SOLAR*REWARDS COMMUNITY (Continued)**

Section No. 9 Original Sheet No. 71

"CSG Application System" or "Community Solar Gardens Application and Subscriber Management System" is the interactive, internet website-based interface maintained by or on behalf of the Company through which the Community Solar Garden Operator may establish qualifications, provide information and complete documents necessary for acceptance in the Company's Solar*Rewards Community Program, and may enter or change the Monthly Subscription Information reflecting updated information for each Subscriber, including any changes to any Subscriber's name, account number, address, and Community Solar Garden Allocation.

"Date of Commercial Operation" shall mean the first day of the first full calendar month upon which commercial operation is achieved following completion of all Interconnection Agreement requirements and processes.

"House Power" shall mean the electricity needed to assist in the PV System's generation, including system operation, performance monitoring and associated communications, except for energy directly required for the local control and safe operation of the PV System. It also means other electricity used by the Community Solar Garden, such as for perimeter lighting, a visitor's center or any other structures or facilities at the Community Solar Garden Site.

"Interconnection Agreement" shall mean the Interconnection Agreement in Section 10 of the Company's rate book.

"Monthly Subscription Information" shall mean the information stored within the CSG Application System, as timely entered or changed by the Community Solar Garden Operator via the CSG Application System, setting forth the name, account number and service address each Subscriber holding Subscriptions in the Community Solar Garden, and the Community Solar Garden Allocation applicable to each such Subscriber's Subscription, reflecting each Subscriber's allocable portion of photovoltaic energy produced by the Community Solar Garden during a particular Production Month.

"Production Meter" shall mean the meter which will record the energy generated by the PV System only and which will be reported on the Solar Garden Operator's bill. The readings on the Production Meter showing the energy generated by the PV System will also be used to determine the RECs generated by the PV System.

"Production Month" shall mean the calendar month during which photovoltaic energy is produced by the Community Solar Garden's PV System and delivered to the Company at the Production Meter.

"PV System" shall mean the solar electric generating facility to be located at the Community Solar Garden, including the photovoltaic panels, inverter, output breakers, facilities necessary to connect to the Production Meter, protective and associated equipment, improvements, and other tangible assets, contract rights, easements, rights of way, surface use agreements and other interests or rights in real estate reasonably necessary for the construction, operation, and maintenance of the electric generating facility that produces the photovoltaic energy subject to this Contract.

(Continued on Sheet No. 9-72)

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STANDARD CONTRACT FOR SOLAR*REWARDS COMMUNITY (Continued)

Section No. 9 Original Sheet No. 72

"Subscribed Energy" means electricity generated by the PV System attributable to the Subscribers' Subscriptions and delivered to the Company at the Production Meter on or after the Date of Commercial Operation.

"Subscriber" means a retail customer of the Company who owns one or more Subscriptions of a community solar garden interconnected with the Company.

"Subscriber's Account Information" consists of the Subscriber's name, account number, service address, telephone number, email address, web site URL, information on Subscriber participation in other distributed generation serving the premises of the Subscriber, and Subscriber specific Bill Credit(s).

"Subscriber's Energy Usage Data" includes the past, present and future electricity usage attributable to the Subscriber for the service address and account number identified for participation in the Community Solar Garden.

"Subscription" means a contract between a Subscriber and the Community Solar Garden Operator.

"Term of the Contract" means the term of this contract which shall be the same as for the Interconnection Agreement applicable to the Community Solar Garden, and shall begin when this Contract is signed by the Parties and end twenty five (25) years after the Date of Commercial Operation unless otherwise provided below.

"Unsubscribed Energy" means electricity generated by the PV System and delivered to the Company at the Production Meter which is not Subscribed Energy and also includes electricity generated by the PV System and delivered to the Company prior to the Date of Commercial Operation.

(Continued on Sheet No. 9-73)

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STANDARD CONTRACT FOR SOLAR*REWARDS COMMUNITY (Continued)

Section No. 9 1st Revised Sheet No. 73

AGREEMENTS

The Community Solar Garden Operator and the Company agree:

1. Sale of Electricity Generated by the Community Solar Garden. Effective upon the Date of Commercial Operation, the Community Solar Garden shall sell and deliver to the Company at the Production Meter all of the photovoltaic energy produced by the PV System. Payment for the Subscribed Energy which is produced and delivered will be solely by a Bill Credit to Subscribers as detailed below. Payment for Unsubscribed Energy will be paid to the Community Solar Garden Operator at the then current: 1.) Company's avoided cost rate (found in the Company's rate book, Rate Code A51) for solar gardens of 40 kW (AC) capacity or larger, or 2.) Company's average retail energy rate (found in the Company's rate book, Rate Code A50) for solar gardens under 40 kW (AC) capacity. Where the Community Solar Garden Operator has elected to transfer the solar RECs to the Company under the Standard Contract for Solar*Rewards Community, an additional payment of \$0.01/kWh will be paid to the Community Solar Garden Operator shall not sell any photovoltaic energy generated from the PV System, or any capacity associated with the PV System, to any person other than the Company during the term of this Contract, and the Company shall purchase and own all photovoltaic energy produced by the PV System. This Contract conveys to the Company all energy generated from the PV System for the Term of the Contract.

A. The Company will buy (through Bill Credits to the Subscribers) all Subscribed energy generated by the Community Solar Garden and delivered to the Company during a particular Production Month at the Bill Credit Rate. Each Subscriber to the Solar*Rewards Community Program will receive a Bill Credit at the Bill Credit Rate for electricity generated attributable to the Subscriber's Subscription. Each Subscriber will also be charged for all electricity consumed by the Subscriber at the applicable rate schedule for sales to that class of customer. If the Bill Credit exceeds the amount owed in any billing period, the excess portion of the Bill Credit in any billing period shall be carried forward and credited against all charges. All Bill Credits must be carried forward for at least a twelve (12) month cycle. The Company shall purchase all Bill Credits with the billing statement which includes the last day in February and restart the credit cycle on the following period with a zero credit balance. Consistent with Minn. R. 7820.3800, Subp. 2, the purchase of the Bill Credits will only be made when the Bill Credit amount is more than \$1 due for an existing customer or \$2 or more due a person or legal entity no longer a customer of the Company.

B. A copy of the presently filed Solar*Rewards Community Program tariff of the Company's rate book is attached to this Contract. The rates for sales and purchases of Subscribed Energy shall be changed annually or otherwise as provided by order of the MPUC. The Community Solar Garden Operator shall comply with all of the rules stated in the Company's applicable electric tariff related to the Solar*Rewards Community Program and the tariffed version of this Contract, as the same may be revised from time to time, or as otherwise allowed by an amendment to this Contract approved, or deemed approved, by the Minnesota Public Utilities Commission. In the event of any conflict between the terms of this Contract and Company's electric tariff, the provisions of the tariff shall control.

(Continued on Sheet No. 9-74)

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STANDARD CONTRACT FOR SOLAR*REWARDS COMMUNITY (Continued)

Section No. 9 Original Sheet No. 74

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- C. For the purchases by the Company, the Company shall apply a Bill Credit each billing period to each Subscriber's bill for retail electric service at the Bill Credit Rate based upon the Subscriber's allocation as set forth in the Monthly Subscription Information applicable to the preceding Production Month. The Production Month to which the Bill Credit is applicable shall not necessarily match the billing period for the retail electric service bill in which the Bill Credit is applied.
- D. For purposes of applying the Bill Credit to each Subscriber's bill, the Company shall be entitled to rely exclusively on the Monthly Subscription Information as timely entered by the Community Solar Garden Operator via the CSG Application System.
- E. The correction of any allocation of previously-applied Bill Credits among Subscribers or payments to the Community Solar Garden Operator for Unsubscribed Energy, pertaining to a particular month due to any inaccuracy reflected in such Monthly Subscription Information with regard to a Subscriber's Subscription in the PV System and the beneficial share of photovoltaic energy produced by the PV System, or the share of Unsubscribed Energy, shall be the full responsibility of the Community Solar Garden Operator, unless such inaccuracies are caused by the Company.
- 2. <u>House Power</u>. The Company will sell House Power to the Community Solar Garden under the rate schedule in force for the class of customer to which the Community Solar Garden Operator belongs. The Community Solar Garden Operator shall be solely responsible for arranging retail electric service exclusively from the Company in accordance with the Company's Electric Rate Book. The Community Solar Garden Operator shall obtain House Power solely through separately metered retail service and shall not obtain House Power through any other means, and waives any regulatory or other legal claim or right to the contrary. Because the Company must purchase from the Community Solar Garden all energy generated by the Community Solar Garden, the Community Solar Garden may not use the energy it generates to be consumed by it. It may not net-out or use energy it generates for House Power. The Parties acknowledge and agree that the performance of their respective obligations with respect to House Power shall be separate from this Contract and shall be interpreted independently of the Parties' respective obligations under this Contract. Notwithstanding any other provision in this Contract, nothing with respect to the arrangements for House Power shall alter or modify the Community Solar Garden Operator's or the Company's rights, duties and obligations under this Contract. This Contract shall not be construed to create any rights between the Community Solar Garden Operator and the Company with respect to the arrangements for House Power.

(Continued on Sheet No. 9-75)

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STANDARD CONTRACT FOR SOLAR*REWARDS COMMUNITY (Continued)

Section No. 9
1st Revised Sheet No. 75

3. Metering Charges and Requirements

A. Metering Charge per Month: Single Phase \$5.50 Three Phase \$8.00

- B. Two (2) Company-owned meters are required to be installed at each service location associated with each Community Solar Garden generation source subject to this Contract. One meter is located at the main service and will record energy delivered to the Community Solar Garden Operator from the Company. The second meter (the "Production Meter") will record energy generated by the PV System only. For the sake of clarity, the amount of energy used as House Power consists of that shown on the meter located at the main service plus electricity recorded as reverse flowing through the Production Meter. The Company shall install, or cause to be installed, own, operate and maintain the Production Meter to measure the AC production of the PV System, at the Community Solar Garden Operator's expense and including the cost of the Production Meter itself. Community Solar Garden Operator will provide all meter housing and socket replacement and rewiring to install both meters. Community Solar Garden Operator shall be charged monthly the metering charge for the main service meter. The metering charge assumes common use of all Company facilities up to the metering point, for both receipt and delivery of energy. Any additional facilities required by Company to accommodate the PV System will require Community Solar Garden Operator to pay an interconnection charge in advance.
- 4. <u>Title, Risk of Loss, and Warranty of Title.</u> As between the Parties, the Community Solar Garden Operator shall be deemed to be in control of the photovoltaic energy output from the PV System up to and until delivery and receipt by the Company at the Production Meter and the Company shall be deemed to be in control of such energy from and after delivery and receipt at such Production Meter. Title and risk of loss related to the photovoltaic energy shall transfer to the Company at the Production Meter. The Community Solar Garden warrants and represents to the Company that it has or will have at the time of delivery good and sufficient title to all photovoltaic energy output and/or the ability to transfer good and sufficient title of same to the Company.
- 5. <u>Interconnection Requirements</u>. The Community Solar Garden Operator must sign an Interconnection Agreement under Section 10 of the Company's rate book, and comply with all of the terms and conditions of that Interconnection Agreement except as otherwise specified in this Contract. The following additional interconnection terms also apply.
- A. Term of Interconnection Agreement. While the Company's tariff pertaining to its Interconnection Agreement generally provides that the term of the Interconnection Agreement may be up to twenty (20) years, where the tariffed Interconnection Agreement is used in conjunction with this tariffed Contract, the term of the Interconnection Agreement may end twenty five (25) years after the Date of Commercial Operation.
- B. To the extent to which the ADDITIONAL TERMS AND CONDITIONS set forth in Section 9, Sheets 68 through 68.16 differ from the Section 10 tariff, these ADDITIONAL TERMS AND CONDITIONS shall control.

(Continued on Sheet No. 9-76)

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STANDARD CONTRACT FOR SOLAR*REWARDS COMMUNITY (Continued)

Section No. 9 1st Revised Sheet No. 76

6. Community Solar Garden Requirements.

- A. The Community Solar Garden Operator shall assure that each of the Community Solar Garden Statutory Requirements is met.
- B. For each Subscriber, there must be a completed and fully-executed Subscriber Agency Agreement and Consent Form (Attachment "A" to this Contract) which is delivered to the Company prior to the Date of Commercial Operation, or prior to adding each Subscriber.
- C. <u>Code Compliance</u>. The Community Solar Garden Operator shall be responsible for ensuring that the PV System equipment installed at the Community Solar Garden meets all applicable codes, standards, and regulatory requirements at the time of installation and throughout its operation.
- D. <u>Project Completion</u>. The Company will determine whether an application from the Community Solar Garden Operator is complete within thirty (30) days of its submission to the Company and approve or reject the application based on engineering review within sixty (60) days of finding it complete unless the Community Solar Garden Operator has agreed to an extension. The date an application shall be considered to be submitted to the Company is the date on which the Community Solar Garden Operator has uploaded to the CSG Application System all documents and information to allow the Company to begin engineering review which include the following:
 - (i) the contact information for the Community Solar Garden Operator;
 - (ii) the Community Solar Garden information, including system location and specifications;
 - (iii) application fee and deposit; and,
 - (iv) engineering documents, including one line diagram, site plan and signed Interconnection application.

Where the Company has timely rejected an application, the Company will allow the Community Solar Garden Operator to provide additional documents or information and the sixty (60) day timeframe will begin anew for the Company to accept or reject the application. The Community Solar Garden Operator shall complete the project and the Date of Commercial Operation shall be within twenty-four (24) months from the Company finding that the application is complete. Failure of the Company to meet the timeframes for completing engineering studies and interconnection cost estimates set forth in the Commission's September 28, 2004 Order in Docket No. E999/CI-01-1023 as implemented in Section 10 of the Company's rate book will extend this twenty-four (24) month period on a day-for-day basis. If the Date of Commercial Operation is not within this twenty-four (24) month period (including any day-for-day extension referenced above), then the Company will return the Deposit and the Community Solar Garden Operator, if it still intents to proceed with the project, will need to reapply and submit a new application fee and deposit.

E. The ADDITIONAL TERMS AND CONDITIONS set forth in tariff Section 9, Sheets 68 through 68.16, fully apply.

(Continued on Sheet No. 9-77)

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STANDARD CONTRACT FOR SOLAR*REWARDS COMMUNITY (Continued)

Section No. 9
Original Sheet No. 77

6. Community Solar Garden Requirements. (Continued)

F. <u>Annual Report</u>. The Community Solar Garden Operator shall issue (and provide to the Company and each Subscriber) public annual reports as of the end of the calendar or other fiscal year containing, at a minimum, the energy produced by the Community Solar Garden; audited financial statements including a balance sheet, income statement, and sources and uses of funds statement; and the management and operatorship of the Community Solar Garden Operator. The identity of specific Subscribers should not be listed in the public annual report, unless if there is explicit informed Subscriber consent. The Community Solar Garden Operator shall take care to preserve the privacy expectations of the Subscribers, such as not publicly providing the Subscriber's Account Information or Subscriber Energy Usage Data or Bill Credits, unless there is explicit informed consent or otherwise provided for in this Contract. Each Subscriber shall have an opportunity to submit comments to the Community Solar Garden Operator with a copy to the Company on the accuracy and completeness of the annual reports.

- G. <u>Audits</u>. The Company reserves the right to inspect the PV System as necessary to assure the safety and reliability of the system at any time during the Term of this Contract, and for an additional period of one (1) year thereafter.
- H. <u>Application Fee</u>. Upon application, and prior to the Company processing the application, the Community Solar Garden Operator must submit an application fee of \$1,200 to the Company. This application fee may be by check or wire transfer. The application fee is meant to cover the cost to the Company of processing the application.
- I. <u>Deposit</u>. Upon application, and prior to the Company processing the application, the Community Solar Garden Operator must submit a deposit of an amount equal to \$100/kW to the Company. This Deposit may be submitted by check or wire transfer. Within thirty (30) days after either the Date of Commercial Operation or the date when the Community Solar Garden Operator informs the Company that it will no longer continue pursuing completion of the Community Solar Garden project, or if the Date of Commercial Operation does not occur within the twenty four (24) month timeline (including day-for-day extensions) detailed in Section 6.D above, the Company shall return to Community Solar Garden Operator the deposit paid. When the deposit qualifies to be returned to the Community Solar Garden Operator, it shall also include interest. Consistent with Minn. Stat. § 325E.02, the rate of interest will be set annually and will be equal to the weekly average yield of one-year United States Treasury securities adjusted for constant maturity for the last full week in November. The interest rate will be rounded to the nearest tenth of one (1) percent. The rate of interest announced by the Commissioner of Commerce on or about December 15 of each year will be the rate of interest that will be paid on deposits returned during the subsequent calendar year.
- J. <u>Participation Fee</u>. Each year, the Community Solar Garden Operator will submit a participation fee of \$300 to the Company for ongoing costs incurred of administering the Solar*Rewards Community Program. The first participation fee will be charged after the Date of Commercial Operation, and the final participation fee will be charged prior to the Term of the Contract expiring.

(Continued on Sheet No. 9-78)

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STANDARD CONTRACT FOR SOLAR*REWARDS COMMUNITY (Continued)

Section No. 9 1st Revised Sheet No. 78

6. Community Solar Garden Requirements. (Continued)

K. <u>Inverter Capacity</u>. The Community Solar Garden must have an inverter with a capacity of no more than one (1) megawatt alternating current (AC) to assure that the Community Solar Garden has a nameplate capacity of no more than one (1) megawatt AC.

L. <u>Maintenance and Repair of the PV System</u>. The Community Solar Garden Operator shall maintain the PV System and the individual components of the PV System in good working order at all times during the Term of the Contract. If during the Term of the Contract the PV System or any of the individual components of the system should be damaged or destroyed, or taken out of service for maintenance, the Community Solar Garden Operator shall provide the Company written notice within thirty (30) calendar days of the event and promptly repair or replace the damaged or destroyed equipment at the Community Solar Garden Operator's sole expense. If the time period for repair or replacement is reasonably anticipated to exceed one hundred eighty (180) days, the Company shall have the right to request to terminate this Contract by written notice.

M. <u>No Relocation</u>. The PV system shall be located at the Community Solar Garden as shown in its application at all times during the Term of the Contract.

N. <u>Disclosure of Production Information</u>. The Community Solar Garden Operator acknowledges and agrees that, in order for the Company to carry out its responsibilities in applying Bill Credits to each Subscriber's bills for electric service, the Company may be required and shall be permitted to provide access or otherwise disclose and release to any Subscriber any and all production data related to the PV System in its possession and information regarding the total Bill Credits applied by the Company with respect to the PV System and any information pertaining to a Subscriber's Subscription. Any additional detailed information requested by a Subscriber shall be provided only upon the Community Solar Garden Operator's consent in writing or email to the Company, or unless the Minnesota Public Utilities Commission or the Minnesota Department of Commerce requests that the Company provides such information to the Subscriber.

O. <u>Disclosure of Community Solar Garden Information</u>. The Community Solar Garden Operator acknowledges and agrees that the Company may publicly disclose the Community Solar Garden Location, Community Solar Garden Operator, nameplate capacity and generation data of the Community Solar Garden. Additionally, the Company will periodically provide a bill message to Subscribers clarifying that questions or concerns related to their Subscription should be directed to the Community Solar Garden Operator, including a statement that the Community Solar Garden Operator is solely responsible for resolving any disputes with the Company or the Subscriber about the accuracy of the Community Solar Garden production and that the Company is solely responsible for resolving any disputes with the Subscriber about the applicable rate used to determine the amount of the Bill Credit.

(Continued on Sheet No. 9-79)

Date Filed: 12-18-15 By: Christopher B. Clark Effective Date: 12-18-15

President and CEO of Northern States Power Company, a Minnesota corporation

Docket No. E002/M-13-867 Order Date: 12-15-15

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STANDARD CONTRACT FOR SOLAR*REWARDS COMMUNITY (Continued)

Section No. 9 Original Sheet No. 79

6. Community Solar Garden Requirements. (Continued)

- P. <u>Certain Tax and Securities Law Issues</u>. The Company makes no warranty or representation concerning the taxable consequences, if any, to Community Solar Garden Operator or its Subscribers with respect to its Bill Credits to the Subscribers for participation in the Community Solar Garden. Additionally, the Company makes no warranty or representation concerning the implication of any federal or state securities laws on how Subscriptions to the Community Solar Garden are handled. The Community Solar Garden Operator and Subscribers are urged to seek professional advice regarding these issues.
- Q. <u>Full Cooperation with the MPUC, Minnesota Department of Commerce, and Minnesota Office of the Attorney General</u>. The Parties agree to fully cooperate with any request for information from the MPUC, the Minnesota Department of Commerce, or the Minnesota Office of the Attorney General pertaining in any way to the Community Solar Garden, and will provide such information upon request in a timely manner. To the extent to which any request calls for producing a specific Subscriber's Account Information, Subscriber Energy Usage Data or Bill Credits, such information shall be provided and marked as Trade Secret or Confidential Information.
- R. <u>New PV Systems</u>. The PV System must not be built or previously interconnected at the time of application to the Solar*Rewards Community Program.
- S. <u>Fair Disclosure</u>. Prior to the time when any person or entity becomes a Subscriber, the Community Solar Garden Operator will fairly disclose the future costs and benefits of the Subscription, and provide to the potential Subscriber a copy of this Contract. The Community Solar Garden Operator shall comply with all other requirements of the MPUC and applicable laws with respect to communications with Subscribers.

(Continued on Sheet No. 9-80)

Date Filed: 09-30-13 By: David M. Sparby Effective Date: 09-17-14

President and CEO of Northern States Power Company, a Minnesota corporation

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STANDARD CONTRACT FOR SOLAR*REWARDS COMMUNITY (Continued)

Section No. 9 Original Sheet No. 80

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- 7. <u>Requirements Applicable to the CSG Application System</u>. The Community Solar Garden Operator must comply with all of the following:
- A. Required use of the CSG Application System. The Community Solar Garden Operator must utilize the CSG Application System to submit an application for approval to operate a Community Solar Garden and to manage Subscribers and Subscriptions.
- B. <u>Subscriber Information</u>. The Community Solar Garden Operator shall issue Subscriptions in the PV System only to eligible retail electric service customers of the Company and provide to the Company the name, account number and service address attributable to each Subscription and the Community Solar Garden Allocation for each Subscriber's Subscription stated in Watts direct current (DC). The Community Solar Garden Operator shall take care to preserve the privacy expectations of the Subscribers, such as not publicly providing a Subscriber's Account Information, Subscriber Energy Usage Data, or Bill Credits. The Community Solar Garden Operator will not disclose such information to third parties, other than to the MPUC, the Minnesota Department of Commerce, or the Minnesota Office of Attorney General, unless the Subscriber has provided explicit informed consent or such disclosure is compelled by law or regulation.
- C. <u>Subscription Transfers</u>. Subscriptions may be transferred or sold to any person or entity who qualifies to be a Subscriber under this Contract or to the Community Solar Garden Operator for resale by the Operator to other Subscribers. A Subscriber may change the premise or account number that the Community Solar Garden energy is attributed to, as long as the Subscriber continues to qualify under these rules. Any transfer of Subscriptions needs to be coordinated through the Community Solar Garden Operator, who in turn needs to provide the required updated information in the CSG Application System within thirty (30) days of the transfer.
- D. <u>Updating Subscriber Information</u>. On or before five (5) business days immediately preceding the first day of each Production Month, the Community Solar Garden Operator shall provide to the Company any and all changes to the Monthly Subscription Information, by entering new or updating previously-entered data through the use of the CSG Application System. Such data to be entered or changed by the Community Solar Garden Operator shall include additions, deletions or changes to the listing of Subscribers holding Subscriptions in the PV System, including any changes to the Subscriber's account number and service address attributable to each Subscription and the Community Solar Garden Allocation for each Subscriber's Subscription, stated in Watts DC.
- E. <u>Responsibility for Verification</u>. The Community Solar Garden Operator shall verify that each Subscriber is eligible to be a Subscriber in the Community Solar Garden and that the Community Solar Garden Statutory Requirements are met.

(Continued on Sheet No. 9-81)

Date Filed: 09-30-13 By: David M. Sparby Effective Date: 09-17-14

President and CEO of Northern States Power Company, a Minnesota corporation

STANDARD CONTRACT FOR SOLAR*REWARDS COMMUNITY (Continued)

Section No. 9
Original Sheet No. 81

- 8. The Community Solar Garden Operator will give the Company reasonable access to its property and to the electric generating facilities if the configuration of those facilities does not permit disconnection or testing from the Company's side of the interconnection. If the Company enters the Community Solar Garden Operator's property, the Company will remain responsible for its personnel.
- 9. The Company may stop providing electricity to the Community Solar Garden Operator during a system emergency. The Company will not discriminate against the Community Solar Garden Operator when it stops providing electricity or when it resumes providing electricity. In the event of an emergency requiring disconnection of the Community Solar Garden, the Company shall follow the process, and provide notice to the Community Solar Garden Operator, consistent with the provisions of the Interconnection Agreement, in Section 10 of the Company's rate book, or as otherwise provided for in the Interconnection Agreement.
- 10. <u>Remedies for Breach</u>. In the event of any breach of this Contract by the Community Solar Garden Operator, then the Company shall have available to it any other remedy provided for in this Contract and any or all of the following remedies which can be used either singularly or cumulatively.
 - a. In the event there is a breach resulting in some production from the Community Solar Garden being assigned in excess of a Subscriber's allowable Subscription under the Community Solar Garden Statutory Requirements, then the Company may treat this excess as Unsubscribed Energy and not provide a Bill Credit to any Subscriber for any such excess production.
 - b. For any breach of this Contract by the Community Solar Garden Operator:
 - At any time the Company seeks a remedy for any breach of this Contract it shall provide in writing a Notice to the Community Solar Garden Operator to remedy the breach within thirty (30) days.
 - ii. If after the thirty (30) days provided for in the Notice the Community Solar Garden Operator is still not in compliance with this Contract, then the Company shall have the right to request by written Notice to disconnect the Community Solar Garden from its network if the Community Solar Garden Operator is not in compliance with the Contract within thirty (30) days. The Company shall send copies of the Notice of Disconnection to Community Solar Garden Operator, all Subscribers of the Community Solar Garden, the Department of Commerce, OAG and MPUC.
 - iii. The Community Solar Garden Operator, the Department of Commerce, OAG, and/or MPUC may object in writing to the Notice of Disconnection within thirty (30) days. Copies of any written objection shall be provided to all of the above entities. An objection to the Notice of Disconnection will trigger Section 12 of this Contract.

(Continued on Sheet No. 9-82)

Date Filed: 09-30-13 By: David M. Sparby Effective Date: 09-17-14

President and CEO of Northern States Power Company, a Minnesota corporation

Docket No. E002/M-13-867 Order Date: 09-17-14

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STANDARD CONTRACT FOR SOLAR*REWARDS COMMUNITY (Continued)

Section No. 9 Original Sheet No. 82

10. Remedies for Breach. In the event of any breach of this Contract by the Community Solar Garden Operator, then the Company shall have available to it any other remedy provided for in this Contract and any or all of the following remedies which can be used either singularly or cumulatively.

- b. For any breach of this Contract by the Community Solar Garden Operator: (Continued)
 - iv. If the Community Solar Garden Operator, the Minnesota Department of Commerce, OAG and/or MPUC do not object to the Notice of Disconnection, the Company is authorized to physically disconnect the Community Solar Garden pursuant to this Notice of Disconnection without providing further notice. No Bill Credits will be applied for any production occurring during physical disconnection. If within ninety (90) days of any such disconnection, the Community Solar Garden Operator returns to being in compliance with the Contract, then the Company will reconnect the Community Solar Garden to its network. Any periods of disconnection will not extend the Term of the Contract. The Community Solar Garden Operator will be financially responsible for the Company's costs of sending crews to disconnect and reconnect the Community Solar Garden to the Company's network.
 - v. If ninety (90) or more consecutive days elapse during which the Community Solar Garden has been disconnected or has otherwise not been in compliance with this Contract, then the Company shall have the right to request to terminate this Contract by written notice to the Community Solar Garden Operator. The Company shall send copies of any Notice requesting termination to all Subscribers of the Community Solar Garden, the Minnesota Department of Commerce, OAG and MPUC. If the Notice is objected to within thirty (30) days by the Community Solar Garden Operator, the Department of Commerce, and/or OAG, Section 12 of this agreement shall apply. Any request to terminate the Contract must be approved by the MPUC, and there is no further obligation of the Parties to perform hereunder following the effective date of such termination except as set forth in Sections 6.G and 16 of this Contract.
- c. For any breach of the Interconnection Agreement, the Company shall also have all remedies provided for in Section 10 of the Company's rate book, or as otherwise provided for in the Interconnection Agreement. In the event this results in disconnection or termination of the Interconnection Agreement, the Company shall provide notice to the Minnesota Department of Commerce, OAG and MPUC. In the event that Community Solar Garden has been disconnected under the terms of the Interconnection Agreement and/or the Interconnection Agreement has been terminated, then the Company shall have the right to request to terminate this Contract by written notice to the Community Solar Garden Operator, with no further obligation of the Parties to perform hereunder following the effective date of such termination. The Company shall send copies of any Notice requesting termination of this Contract to all Subscribers of the Community Solar Garden, the Minnesota Department of Commerce, OAG and MPUC. If the Notice is objected to within thirty (30) days by the Community Solar Garden Operator, the Department of Commerce, and/or OAG, Section 12 of this agreement shall apply. Any request to terminate this Contract must be approved by the MPUC.

(Continued on Sheet No. 9-82.1)

Date Filed: 09-30-13 By: David M. Sparby Effective Date: 09-17-14

President and CEO of Northern States Power Company, a Minnesota corporation

Docket No. E002/M-13-867 Order Date: 09-17-14

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STANDARD CONTRACT FOR SOLAR*REWARDS COMMUNITY (Continued)

Section No. 9
Original Sheet No. 82.1

10. Remedies for Breach. In the event of any breach of this Contract by the Community Solar Garden Operator, then the Company shall have available to it any other remedy provided for in this Contract and any or all of the following remedies which can be used either singularly or cumulatively. (Continued)

- d. In the event of an alleged breach of this Contract by the Community Solar Garden Operator for which the Company sends a Notice pursuant to Section 10(b)(i), Company shall also send a copy of the Notice as soon as practicable to any financing party for the Community Solar Garden whose contact information has been provided to the Company. Any such financing party shall have the right to cure the alleged breach within the cure period provided in Section 10(b)(ii) and Company agrees to accept any such cure as if made by the Community Solar Garden Operator. The Company shall be under no obligation to provide any such financing party with any information that would violate the Data Privacy Policies set forth in Exhibit 1 to Attachment "A" of this Contract. The Company shall be under no obligation to provide any such financing party with any information it may have which is confidential to the Community Solar Garden Operator unless the Community Solar Garden Operator has provided written consent to the Company permitting the release to the financing party of such confidential information.
- e. In the event of any breach of this Contract by Company, the Community Solar Garden Operator shall provide Company with a written Notice of the breach. Company shall have up to thirty (30) days to cure the breach. If the breach is not cured within the thirty (30) days, the Community Solar Garden Operator may utilize the procedures set forth in Section 12. If the breach results in Bill Credits not being issued to one or more individual Subscribers, in the absence of a cure by Company within the allowed time following the Notice, the applicable Subscriber(s) may also seek a remedy for any past due Bill Credits from the MPUC pursuant to Section 12.

(Continued on Sheet No. 9-83)

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President and CEO of Northern States Power Company, a Minnesota corporation

Docket No. E002/M-13-867 Order Date: 09-17-14

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STANDARD CONTRACT FOR **SOLAR*REWARDS COMMUNITY (Continued)**

Original Sheet No. 83

Section No. 9

11. Limitation of Liability

A) Each Party shall at all times indemnify, defend, and save the other Party harmless from any and all damages, losses, claims, including claims and actions relating to injury or death of any person or damage to property, costs and expenses, reasonable attorneys' fees and court costs, arising out of or resulting from the Party's performance of its obligations under this agreement, except to the extent that such damages, losses or claims were caused by the negligence or intentional acts of the other Party.

- B) Each Party's liability to the other Party for failure to perform its obligations under this Contract shall be limited to the amount of direct damage actually incurred. In no event shall either Party be liable to the other Party for any punitive, incidental, indirect, special, or consequential damages of any kind whatsoever, including for loss of business opportunity or profits, regardless of whether such damages were foreseen.
- C) Notwithstanding any other provision, with respect to the Company's duties or performance or lack of performance under this Contract, the Company's liability to the Community Solar Garden Operator shall be limited as set forth in the Company's rate book and terms and conditions for electric service, and shall not be affected by the terms of this Contract. There are no third-party beneficiaries of any Company duty under this Contract other than the Company's duty to Subscribers to issue Bill Credits as set forth in this Contract, and the duty to a financing party under Section 10.d. of this Contract.

12. Dispute Resolution

- A) Each Party agrees to attempt to resolve all disputes arising hereunder promptly, equitably and in a good faith manner.
- B) In the event a dispute arises under this Contract between the Parties, and if it cannot be resolved by the Parties within thirty (30) days after written notice of the dispute to the other Party, then the Parties may refer the dispute for resolution to the MPUC, which shall maintain continuing jurisdiction over this Agreement.
- 13. The separately executed power purchase agreement referenced in the Interconnection Agreement for the purchase of power exported by the Community Solar Garden Operator to the Company is not needed. Instead, this Contract shall govern the terms for the power exported by the Community Solar Garden Operator to the Company.

(Continued on Sheet No. 9-84)

Date Filed: 09-30-13 Effective Date: 09-17-14 By: David M. Sparby

President and CEO of Northern States Power Company, a Minnesota corporation

Docket No. E002/M-13-867 Order Date: 09-17-14

STANDARD CONTRACT FOR SOLAR*REWARDS COMMUNITY (Continued)

Section No. 9 Original Sheet No. 84

- 14. <u>Renewable Energy Credits (RECs)</u>. Under any of the following conditions, the RECs associated with the Community Solar Garden belong to the Company:
- i. Where the Community Solar Garden or any person or entity on its behalf has received or intends to accept a Made in Minnesota benefit, as defined in Minn. Stat. § 216C.411, pursuant to Minn. Stat. §§ 216C.411 through 216C.415. No solar-REC value shall be paid under the present Contract in this circumstance.
- ii. Where the Community Solar Garden or any person or entity on its behalf has received or intends to accept a Solar*Rewards benefit, as defined in Minn. Stat. § 116C.7792. No solar-REC value shall be paid under the present Contract in this circumstance.
- iii. Where the Community Solar Garden Operator has elected to transfer the solar RECs to the Company under this Contract and the Value of Solar rate applicable to the Community Solar Garden has not been reflected in the Solar*Rewards Community Program tariff of the Company's rate book, then compensation to Subscribers for Subscribed Energy will be at the Enhanced bill credit rate as updated annually and found in Solar*Rewards Community Program tariff of the Company's rate book. Without this election, and where the Value of Solar rate applicable to the Community Solar Garden has not been adopted, compensation to Subscribers for Subscribed Energy will be at the Standard bill credit rate as updated annually and found in the Solar*Rewards Community Program tariff of the Company's rate book. The Enhanced bill credit is not available under this Contract where the Community Solar Garden or any person or entity on its behalf has received or intends to accept a Made in Minnesota benefit or a Solar*Rewards benefit. The Community Solar Garden Operator indicates immediately below with an "X" or check-mark or marking in the box if it elects to transfer the solar RECs under this Section 14.iii. of this Contract.
 - By placing an "X", or checking or marking this box, the Community Solar Garden Operator indicates its election to transfer the solar RECs to the Company under Section 14.iii of this Contract. With this election, compensation to Subscribers for Subscribed Energy will be at the applicable Enhanced bill credit rate as found in the Solar*Rewards Community Program tariff of the Company's rate book. This election is only valid where it is not the case that the Community Solar Garden or any person or entity on its behalf has received or intends to accept a Made in Minnesota benefit or a Solar*Rewards benefit. This election shall remain in place for the Term of the Contract, and REC payments will last for the full Term of the Contract.

iv. Where a Value of Solar rate applicable to the Community Solar Garden has become effective as reflected in the Solar*Rewards Community Program tariff of the Company's rate book. In such a situation the Value of Solar rate shall be applicable regardless of whether or not the Community Solar Garden or any person or entity on its behalf has received or intends to accept a Made in Minnesota benefit or a Solar*Rewards benefit and shall be in place and in lieu of any election the Community Solar Garden Operator may have made in Section 14.iii above.

The following provisions of Section 14 only apply where the solar RECs associated with the Community Solar Garden belong to the Company under either Section 14.i, 14.ii, or 14.iv of this Contract.

(Continued on Sheet No. 9-85)

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President and CEO of Northern States Power Company, a Minnesota corporation

Docket No. E002/M-13-867 Order Date: 09-17-14

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Northern States Power Company, a Minnesota corporation Minneapolis, Minnesota 55401

MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2

STANDARD CONTRACT FOR SOLAR*REWARDS COMMUNITY (Continued)

Section No. 9
1st Revised Sheet No. 85

14. <u>Renewable Energy Credits (RECs)</u>. Under any of the following conditions, the RECs associated with the Community Solar Garden belong to the Company: (Continued)

The Community Solar Garden Operator hereby automatically and irrevocably assigns to Company all rights, title and authority for Company to register the Subscribed Energy and Unsubscribed Energy and own, hold and manage the RECs associated with all such energy in the Company's own name and to the Company's account, including any rights associated with any renewable energy information or tracking system that exists or may be established (including but not limited to participants in any applicable REC Registration Program and the United States government) with regard to monitoring, registering, tracking, certifying, or trading such credits. The Community Solar Garden Operator hereby authorizes Company to act as its agent for the purposes of registering, tracking and certifying RECs and the Company has full authority to hold, sell or trade such RECs within its own account of said renewable energy information or tracking systems. Upon the request of Company, at no cost to Company, (i) Community Solar Garden Operator shall deliver or cause to be delivered to Company such attestations and/or certifications of the Community Solar Garden and its associated RECs, and (ii) Community Solar Garden Operator shall cooperate with Company's registration and certification of the Community Solar Garden. The Company shall own and retain all RECs associated with Subscribed Energy and Unsubscribed Energy produced by the Community Solar Garden.

A. Definition of Renewable Energy Credits (RECs). "Renewable Energy Credits" or "RECs" are all attributes of an environmental or other nature that are created or otherwise arise from the Community Solar Garden Operator's generation of energy using solar energy as a fuel, including, but not limited to, tags, certificates or similar products or rights associated with solar energy as a "green" or "renewable" electric generation resource, including any and all environmental air quality credits, emission reductions, off-sets, allowances or other benefits related to the generation of energy from the Community Solar Garden PV System that reduces, displaces or off-sets emissions resulting from fuel combustion at another location pursuant to any existing or future international, federal, state or local legislation or regulation or voluntary agreement, and the aggregate amount of credits, offsets or other benefits including any rights, attributes or credits arising from or eligible for consideration in the M-RETS program or any similar program pursuant to any international, federal, state or local legislation or regulation or voluntary agreement and any renewable energy certificates issued pursuant to any program, information system or tracking system associated with the renewable energy generated from the Community Solar Garden PV System. RECs do not include any federal, state or local tax credits, cash grants, production incentives or similar tax or cash benefits for which Community Solar Garden Operator or the Community Solar Garden PV System are eligible or which either receives, or any depreciation, expenses, credits, benefits or other federal, state or local tax treatment for which Community Solar Garden Operator or the Community Solar Garden PV System is eligible or that either receives.

(Continued on Sheet No. 9-86)

Date Filed: 12-18-15 By: Christopher B. Clark Effective Date: 12-18-15

President, Northern States Power Company, a Minnesota corporation

Docket No. E999/CI-15-755 Information Request MPUC-005 Attachment A.1., Pages 108 of 121

Northern States Power Company, a Minnesota corporation Minneapolis, Minnesota 55401

MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2

STANDARD CONTRACT FOR SOLAR*REWARDS COMMUNITY (Continued)

Section No. 9 Original Sheet No. 86

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- 14. <u>Renewable Energy Credits (RECs)</u>. Under any of the following conditions, the RECs associated with the Community Solar Garden belong to the Company: (Continued)
- B. <u>Definition of M-RETS Program</u>. "M-RETS Program" means the Midwest Renewable Energy Trading System program, MPUC Docket No. E999/CI-04-1616 and subsequent or related proceedings.
- C. Ownership of RECs. All RECs associated with the Subscribed Energy and Unsubscribed Energy shall be assigned to the Company. By participating as a Community Solar Garden Operator under this Contract, the Community Solar Garden Operator hereby assigns to Company all right title and interest of the Community Solar Garden Operator to all RECs arising out of or associated with the generation of Subscribed Energy and Unsubscribed Energy. None of the Subscribers to the Community Solar Garden shall receive any RECs associated with the Subscribed Energy and Unsubscribed Energy. The Community Solar Garden Operator warrants and represents to the Company that it has or will have at the time of delivery good and sufficient title to all RECs associated with such Subscribed Energy and Unsubscribed Energy output and/or the ability to transfer good and sufficient title of all such RECs to the Company. The Company shall be entitled to all RECs generated by the Community Solar Garden PV System for such Subscribed Energy and Unsubscribed Energy while the Community Solar Garden Operator participates in the service offered in this Contract. The Community Solar Garden Operator hereby automatically and irrevocably assigns to the Company all rights, title and authority for Company to register the Community Solar Garden Operator's RECs associated with Subscribed Energy and Unsubscribed Energy under the terms of this Contract and to and own, hold and manage these RECs associated with the Community Solar Garden in the Company's own name and to the Company's account, including any rights associated with any renewable energy information or tracking system that exists or may be established in Minnesota or other jurisdictions (including but not limited to the United States government) with regard to monitoring, registering, tracking, certifying, or trading such credits. The Community Solar Garden Operator hereby authorizes Company to act as its agent for the purposes of registering, tracking and certifying these RECs and the Company has full authority to hold, sell or trade such RECs to its own account of said renewable energy information or tracking systems. Upon the request of Company from time to time, at no cost to Company, (i) Community Solar Garden Operator shall deliver or cause to be delivered to Company such attestations / certifications of all RECs, and (ii) Community Solar Garden Operator shall provide full cooperation in connection with Company's registration of the Community Solar Garden Operator's RECs under this Contract and certification of RECs. The Company shall own all RECs arising out of or associated with the generation of Subscribed Energy and Unsubscribed Energy for all purposes, and be entitled to use them in any manner it chooses.

(Continued on Sheet No. 9-87)

Date Filed: 12-18-15 By: Christopher B. Clark Effective Date: 12-18-15

President, Northern States Power Company, a Minnesota corporation

STANDARD CONTRACT FOR SOLAR*REWARDS COMMUNITY (Continued)

Section No. 9
Original Sheet No. 87

15. <u>Miscellaneous</u>. The "Miscellaneous" provisions in the Interconnection Agreement between the Parties addressing the following issues are incorporated into this Contract and are fully applicable to this Contract as if set forth in full herein. Where the Interconnection Agreement in the "Miscellaneous" section uses the term "Interconnection Customer", this shall mean the Community Solar Garden Operator for purposes of the present Contract. Where the Interconnection Agreement in the "Miscellaneous" section uses the term "Agreement", this shall mean this Contract for purposes of the present Contract.

- A. Force Majeure
- B. Notices
- C. Assignment
- D. Non-Waiver
- E. Governing Law and Inclusion of Xcel Energy's Tariffs and Rules
- F. Amendment or Modification
- G. Entire Agreement
- H. Confidential Information
- I. Non-Warranty
- J. No Partnership
- 16. <u>Term</u>. The Term of the Contract shall be the same as for the Interconnection Agreement applicable to the Community Solar Garden, and each shall begin when signed by the Parties and end twenty five (25) years after the Date of Commercial Operation unless otherwise provided for in this Contract. In the event of termination, or early termination of this Contract, applicable provisions shall continue in effect after termination to the extent necessary to enforce and complete the duties, obligations or responsibilities of the Parties arising prior to termination and, as applicable, to provide for final billings and adjustments related to the period prior to termination, repayment of any money due and owing to either Party pursuant to this Contract.

(Continued on Sheet No. 9-88)

Date Filed: 09-30-13 By: David M. Sparby Effective Date: 09-17-14

President and CEO of Northern States Power Company, a Minnesota corporation

Docket No. E002/M-13-867 Order Date: 09-17-14

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Docket No. E999/CI-15-755 Information Request MPUC-005 Attachment A.1., Pages 110 of 121

Northern States Power Company, a Minnesota corporation Minneapolis, Minnesota 55401 MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2

STANDARD CONTRACT FOR SOLAR*REWARDS COMMUNITY (Continued)

Section No. 9 1st Revised Sheet No. 88

SIGNATURES

IN WITNESS WHEREOF, the Parties hereto have caused two originals of this Contract to be executed by their duly authorized representatives. This Contract is effective as of the last date set forth below. Each Party may sign using an electronic signature. Electronic signatures shall have the same effect as original signatures.

Community Solar Garden Operator	Northern States Power Company, a Minnesota corporation
Ву:	Ву:
Name:	Name:
Title:	Title:
Date:	Date:

(Continued on Sheet No. 9-89)

Date Filed: 12-18-15 By: Christopher B. Clark Effective Date: 12-18-15

President and CEO of Northern States Power Company, a Minnesota corporation

STANDARD CONTRACT FOR SOLAR*REWARDS COMMUNITY (Continued)

Community Solar Garden Name:

Section No. 9 Original Sheet No. 89

Attachment "A"

Solar*Rewards Community Subscriber Agency Agreement and Consent Form

Community Solar Garden Address:

The undersigned ("Subscriber") has a Subscription to the following Community Solar Garden:

Community Solar Garden Operator:	Community Solar Garden contact information for Subscriber questions and complaints: Address (if different from above);
	Telephone number: Email address: Web Site URL:
Subscriber Name:	Subscriber Service Address where receiving electrical service from Northern States Power Company:
Subscriber's Account Number with Northern States Power Company:	

(Continued on Sheet No. 9-90)

Date Filed: 09-30-13 By: David M. Sparby Effective Date: 09-17-14

President and CEO of Northern States Power Company, a Minnesota corporation

Docket No. E002/M-13-867 Order Date: 09-17-14

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STANDARD CONTRACT FOR **SOLAR*REWARDS COMMUNITY (Continued)**

Section No. 9 Original Sheet No. 90

By signing this Solar*Rewards Community Subscriber Agency Agreement and Consent Form, the Subscriber agrees to all of the following:

1. Assignment of Renewable Energy Credits ("RECs"), Energy and Capacity to Northern States Power Company, a Minnesota corporation. The Subscriber agrees that the Community Solar Garden Operator has authority to assign all energy produced and capacity associated with the photovoltaic energy system at the Community Solar Garden to Northern States Power Company, and the Subscriber agrees that all energy produced, and capacity associated with the Subscriber's share of the photovoltaic energy system at the Community Solar Garden shall belong to Northern States Power Company. The Subscriber also agrees that the Community Solar Garden Operator has authority to assign all RECs associated with the photovoltaic energy system at the Community Solar Garden to Northern States Power Company, and that if the Community Solar Garden or a person or entity on its behalf has assigned the RECs to Northern States Power Company, then all RECs associated with the Subscriber's share of the photovoltaic energy system at the Community Solar Garden shall belong to Northern States Power Company.

2. Tax Implications. The Community Solar Garden Operator has provided the Subscriber with a statement that Northern States Power Company makes no representations concerning the taxable consequences to the Subscriber with respect to its Bill Credits to the Subscriber or other tax issues relating to participation in the Community Solar Garden.

(Continued on Sheet No. 9-91)

Date Filed: 09-30-13 Effective Date: 09-17-14 By: David M. Sparby

President and CEO of Northern States Power Company, a Minnesota corporation

Docket No. Order Date: 09-17-14 E002/M-13-867

STANDARD CONTRACT FOR SOLAR*REWARDS COMMUNITY (Continued)

Section No. 9 Original Sheet No. 91

- 3. Northern States Power Company hereby discloses to the Subscriber that it recognizes that not all production risk factors, such as grid-failure events or atypically cloudy weather, are within the Community Solar Garden Operator's control.
- 4. Information Sharing. Participating in the Solar*Rewards Community Program will require sharing Subscriber's Account Information (name, account number, service address, telephone number, email address, web site URL, information on Subscriber participation in other distributed generation serving the premises of the Subscriber, Subscriber specific Bill Credit(s)) and Subscriber's Energy Use Data (the past, present and future electricity usage attributable to the Subscriber for the service address and account number identified for participation in the Community Solar Garden). The following outlines the type of information that will be shared, and how that information will be used.
- a. <u>Subscriber's Account Information and Subscriber Energy Usage Data</u>. The Subscriber authorizes Northern States Power Company to provide the Community Solar Garden Operator (and the Community Solar Garden Operator's designated subcontractors and agents) with the Subscriber's Account Information and Subscriber's Energy Usage Data as described in Section 4 above. This information is needed to allow the Community Solar Garden Operator determine the extent to which the Subscriber is entitled to participate in the Community Solar Garden, and to validate the amount of the Bill Credits to be provided by Northern States Power Company to the Subscriber. The current data privacy policies of Northern States Power Company applicable to its Solar*Rewards Community Program provided to the Subscriber by the Community Solar Garden Operator pursuant Section 3 above are attached as Exhibit 1 of this Solar*Rewards Community Subscriber Agency Agreement and Consent Form. These privacy policies include definitions of "Subscriber's Account Information" and "Subscriber's Energy Usage Data."

(Continued on Sheet No. 9-92)

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President and CEO of Northern States Power Company, a Minnesota corporation

Docket No. E002/M-13-867 Order Date: 09-17-14

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STANDARD CONTRACT FOR SOLAR*REWARDS COMMUNITY (Continued)

Section No. 9 Original Sheet No. 92

4. Information Sharing. (Continued)

b. <u>Subscriber's Subscription Information</u>: The Subscriber authorizes the Community Solar Garden Operator to provide information to Northern States Power Company identifying the Subscriber (with the Subscriber's name, service address, and account number) and detailing the Subscriber's proportional share in kilowatts of the Community Solar Garden and to provide additional updates of this information to Northern States Power Company as circumstances change. This information is needed to allow Northern States Power Company to properly apply Bill Credits for the photovoltaic energy generated by the Community Solar Garden. Also, this information is needed to allow Northern States Power Company to send to the Subscriber notices or other mailings pertaining to their involvement in the Solar*Rewards Community Program. The Community Solar Garden Operator shall not disclose Subscriber information in annual reports or other public documents absent explicit, informed consent from the Subscriber. The Community Solar Garden Operator will not release any Subscriber data to third parties except to fulfill the regulated purposes of the Solar*Rewards Community Program, to comply with a legal or regulatory requirement, or upon explicit, informed consent from the Subscriber.

c. Aggregated Information. Aggregated information concerning production at the Community Solar Garden may be publicly disclosed to support regulatory oversight of the Solar*Rewards Community Program. This includes annual reports available to the public related to specific Community Solar Gardens, including but not limited to production from the Community Solar Gardens; size, location and the type of Community Solar Garden subscriber groups; reporting on known complaints and the resolution of these complaints; lessons learned and any potential changes to the Solar*Rewards Community Program; reporting on Bill Credits earned and paid; and reporting on the application process. Aggregated information will not identify individual Subscribers or provide Subscriber-Specific Account Information, Subscriber-Specific Energy Usage Data or Subscriber-specific Bill Credits unless a Subscriber provides explicit informed consent. Depending on the nature of the aggregated information, however, it may still be possible to infer the amount of production attributed to individual Subscribers to the Community Solar Garden. The Subscriber agrees to the inclusion of its production information in the creation of the aggregated information. The Community Solar Garden Operator will not use aggregated information for purposes unrelated to the Solar*Rewards Community Program without first providing notice and obtaining further consent, unless the aggregated information is otherwise available as public information. The policies of Northern States Power Company related to sharing aggregated information are part of the data privacy policies contained in the attached Exhibit 1 of this Solar*Rewards Community Subscriber Agency Agreement and Consent Form and should be provided to the Subscriber by the Community Solar Garden Operator pursuant Section 3 above.

d. Information Requests from the MPUC or the Department of Commerce. The Subscriber agrees that the Community Solar Garden Operator and Northern States Power Company are authorized to provide any information they possess related to the Subscriber or the Subscriber's participation in the Community Solar Garden to the Minnesota Public Utilities Commission (MPUC), the Minnesota Department of Commerce, or the Minnesota Office of Attorney General. This information is needed to allow proper regulatory oversight of Northern States Power Company and of the Solar*Rewards Community Program.

(Continued on Sheet No. 9-93)

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Docket No. E999/CI-15-755 Information Request MPUC-005 Attachment A.1., Pages 115 of 121

Northern States Power Company, a Minnesota corporation Minneapolis, Minnesota 55401

MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2

STANDARD CONTRACT FOR SOLAR*REWARDS COMMUNITY (Continued)

Section No. 9 Original Sheet No. 93

- 4. Information Sharing. (Continued)
- e. <u>Liability Release</u>. Northern States Power Company shall not be responsible for monitoring or taking any steps to ensure that the Community Solar Garden Operator maintains the confidentiality of the Subscriber's Account Information, the Subscriber's Energy Usage or the Bill Credits received pertaining to the Subscriber's participation in the Community Solar Garden. However, Northern States Power Company shall remain liable for its own inappropriate release of Subscriber's Account Information and Subscriber's Energy Use Data.
- f. <u>Duration of Consent</u>. The Subscriber's consent to this information sharing shall be ongoing for the Term of the Contract between the Community Solar Garden Operator and Northern States Power Company, or until the Subscriber no longer has a Subscription to the Community Solar Garden and the Community Solar Garden Operator notifies Northern States Power Company of this fact through the CSG Application System. Provided, however, the Subscriber's consent shall also apply thereafter to all such information of the Subscriber pertaining to that period of time during which the Subscriber had a Subscription to the Community Solar Garden.
- g. <u>Modification</u>. The above provisions addressing data privacy and in Exhibit 1 shall remain in place until and unless other requirements are adopted by the MPUC in its generic privacy proceeding, Docket No. E,G999/Cl-12-1344, or other MPUC Order. Northern States Power Company shall file necessary revisions to its tariffs and contracts within thirty (30) days of such Order.

Subscriber's Name:	
Subscriber's Signature:	
Date:	

(Continued on Sheet No. 9-94)

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Docket No. E002/M-13-867 Order Date: 09-17-14

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STANDARD CONTRACT FOR SOLAR*REWARDS COMMUNITY (Continued)

Section No. 9
Original Sheet No. 94

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Exhibit 1 to Attachment "A" to Solar*Rewards Community Subscriber Agency Agreement and Consent Form

Data Privacy Policies of Northern States Power Company Pertaining to the Solar*Rewards Community Program

The data privacy policies of Northern States Power Company pertaining to the Solar*Rewards Community Program are as follows and may be changed from time to time as filed in the Company's tariff or as otherwise may be authorized by the Minnesota Public Utilities Commission ("MPUC"):

Definitions

Unless indicated otherwise, the same definition and meaning of terms in this document are the same as contained in the Standard Contract for Solar*Rewards Community. For ease of reference, here are some of the specific definitions:

"Company" means Northern States Power Company, a Minnesota corporation, and its affiliates and agents.

"Subscribed Energy" means electricity generated by the PV System attributable to the Subscribers' Subscriptions and delivered to the Company at the Production Meter on or after the Date of Commercial Operation.

"Subscriber" means a retail customer of the Company who owns one or more Subscriptions of a community solar garden interconnected with the Company.

"Subscriber's Account Information" consists of the Subscriber's name, account number, service address, telephone number, email address, web site URL, information on Subscriber participation in other distributed generation serving the premises of the Subscriber, and Subscriber specific Bill Credit(s).

"Subscriber's Energy Usage Data" includes the past, present and future electricity usage attributable to the Subscriber for the service address and account number identified for participation in the Community Solar Garden.

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(Continued on Sheet No. 9-95)

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President and CEO of Northern States Power Company, a Minnesota corporation

STANDARD CONTRACT FOR SOLAR*REWARDS COMMUNITY (Continued)

Original Sheet No. 95

Section No. 9

Overview

This section addresses how Subscriber's Account Information and Subscriber's Energy Usage Data will be collected, used and shared as part of participation in the Solar*Rewards Community Program.

1. How Subscriber's Account Information and Energy Usage Data Will Be Exchanged

a. Subscriber Specific Information

Once a Subscriber has executed a Subscriber Agency Agreement and Consent Form, an ongoing data exchange will occur between the Company and a Community Solar Garden Operator (and their designated subcontractors and agents):

- (i) The Company will disclose the following Subscriber-specific information to the Community Solar Garden Operator:
 - Subscriber's Account Information
 - Subscriber's Energy Usage Data
 - Bill credits
- (ii) The Community Solar Garden Operator will disclose to the Company the following Subscriber-specific information:
 - Subscriber's Account Information
 - Community Solar Garden Allocation for each Subscriber's Subscription stated in kW
 - Production data related to the PV System
 - Monthly Subscription Information
- b. Aggregated Subscriber Information

Aggregated Subscriber information will be reported as part of Permitted Public Reporting, outlined in Section 2(b) below.

To be considered "aggregated" the reported information must include information attributable to all Subscribers participating in a specific Solar*Rewards Community program site, which based on program requirements will contain a minimum of five Subscribers. Depending on the nature of the aggregated information, however, from this information alone or in combination with other publicly available information it may still be possible to infer the amount of production attributed to individual Subscribers to the Community Solar Garden.

(Continued on Sheet No. 9-96)

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President and CEO of Northern States Power Company, a Minnesota corporation

STANDARD CONTRACT FOR SOLAR*REWARDS COMMUNITY (Continued)

Section No. 9 Original Sheet No. 96

2. <u>How Subscriber's Information Will Be Used</u>

The following outlines how the Subscriber's Account Information and Subscriber Energy Usage Data will be used as part of the Solar*Rewards Community Program.

a. Program Management

As part of administering the Solar*Rewards Community program, the Solar Garden Operator and the Company may provide information related to the Subscriber and/or the Community Solar Garden to:

- the MPUC
- the Minnesota Department of Commerce
- the Minnesota Office of Attorney General
- Other governmental or private entities as required by law or regulation

Additionally, as part of administering the Solar*Rewards Community program, the Company may share Subscriber's Account Information and Subscriber's Energy Usage Data to service providers, agents, or contracted agents who support the program on its behalf. The Company prohibits these service providers from using or disclosing the Subscriber's information except as necessary to perform these specific services or to comply with legal requirements. More information about the Company's general privacy practices is explained in its Privacy Policy available on www.xcelenergy.com.

b. Permitted Public Reporting

The Subscriber's Energy Usage Data of each participating Subscriber to a Community Solar Garden will be combined and reported in the aggregate by the Community Solar Garden Operator in its annual report on the Solar*Rewards Community program. The identity of specific Subscribers, the specific Subscriber's Account Information, Subscriber's Energy Usage Data and Subscriber-specific Bill Credit will not be listed in the public annual report unless the Subscriber has provided the Community Solar Garden Operator with prior written consent.

Per the requirements of the MPUC, the Company will provide to the MPUC annual reports which will include information or data requested by the MPUC or Minnesota Department of Commerce, including the following:

- Reporting on Solar*Rewards Community program costs, including an analysis of the deposit, application, participation and metering fees and further justification for these fees going forward;
- Reporting on the Solar*Rewards Community Gardens, including but not limited to size, location and the type of Solar*Rewards Community subscriber groups;
- Reporting on known complaints and the resolution of these complaints;
- A copy of each contract signed with a Community Solar Garden Operator, if not previously filed;
- Lessons learned and any potential changes to the program;
- Report on bill credits earned and paid; and the
- Application process

(Continued on Sheet No. 9-97)

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President and CEO of Northern States Power Company, a Minnesota corporation

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STANDARD CONTRACT FOR SOLAR*REWARDS COMMUNITY (Continued)

Section No. 9
Original Sheet No. 97

2. How Subscriber's Information Will Be Used (Continued)

c. Prohibited Reporting or Sharing

Except as otherwise provided in this document, the Company will not disclose the Subscriber's Account Information, Subscriber's Energy Usage Data or Subscriber-specific Bill Credits to a third party without first obtaining the Subscriber's written consent.

Any requests by the Community Solar Garden Operator to the Company for information about a Subscriber that is not Subscriber's Account Information or Subscriber's Energy Usage Data will require execution of a separate written consent by the Subscriber. Notwithstanding the previous statement, the Company will not provide the Community Solar Garden Operator with the Subscriber's Social Security Number unless directed to do so by the MPUC or Minnesota Department of Commerce or compelled by law or regulation.

3. Subscriber Data Access and Correction

The following outlines what information is available to the Subscriber from the Company and the Community Solar Garden Operator, and methods of correcting any inaccuracies.

a. Information Available from the Company

Subscribers can contact the Company's call center to obtain information pertaining to their specific Bill Credit attributable to their participation in Solar*Rewards Community Program. The correction of any allocation of previously-applied Bill Credits among Subscribers or payments to the Community Solar Garden Operator for Unsubscribed Energy, pertaining to a particular month due to any inaccuracy reflected in such Monthly Subscription Information with regard to a Subscriber's Subscription in the PV System and the beneficial share of photovoltaic energy produced by the PV System, or the share of Unsubscribed Energy, shall be the full responsibility of the Community Solar Garden Operator, unless such inaccuracies are caused by the Company .

Subscribers may also obtain from the Company the following information related to the Solar*Rewards Community Program without obtaining written consent from the Community Solar Garden Operator:

- Site location
- Operator name
- Nameplate capacity
- Production data related to the PV system
- Bill Credit Rate and total amount of Bill Credits applied to the PV System
- Any other information pertaining to the Subscriber's Subscription

Other information regarding the Community Solar Garden Operator known to the Company will not be disclosed unless the Subscriber obtains prior explicit informed consent from the Community Solar Garden Operator or unless directed to do so by the MPUC or Minnesota Department of Commerce or compelled by law or regulation.

(Continued on Sheet No. 9-98)

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Northern States Power Company, a Minnesota corporation Minneapolis, Minnesota 55401

MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2

STANDARD CONTRACT FOR SOLAR*REWARDS COMMUNITY (Continued)

Section No. 9
Original Sheet No. 98

3. <u>Subscriber Data Access and Correction (Continued)</u>

b. Information Available from the Community Solar Garden Operator

Subscribers and prospective subscribers can contact the Community Solar Garden Operator to obtain the following information:

- Future costs and benefits of the Subscription, including:
 - i. All nonrecurring (i.e., one-time) charges;
 - ii. All recurring charges;
 - iii. Terms and conditions of service;
 - iv. Whether any charges may increase during the course of service, and if so, how much advance notice is provided to the Subscriber;
 - v. Whether the Subscriber may be required to sign a term contract;
 - vi. Terms and conditions for early termination;
 - vii. Any penalties that the Community Solar Garden may charge to the Subscriber;
 - viii. The process for unsubscribing and any associated costs;
 - ix. An explanation of the Subscriber data the Community Solar Garden Operator will share with Northern States Power Company and that Northern States Power Company will share with the Community Solar Garden Operator;
 - x. The data privacy policies of Northern States Power Company and of the Community Solar Garden Operator;
 - xi. The method of providing notice to Subscribers when the Community Solar Garden is out of service, including notice of estimated length and loss of production;
 - xii. Assurance that all installations, upgrades and repairs will be under direct supervision of a NABCEP-certified solar professional and that maintenance will be performed according to industry standards, including the recommendations of the manufacturers of solar panels and other operational components;
 - xiii. Allocation of unsubscribed production; and
 - xiv. A statement that the Community Solar Garden Operator is solely responsible for resolving any disputes with Northern States Power Company or the Subscriber about the accuracy of the Community Solar Garden production and that Northern States Power Company is solely responsible for resolving any disputes with the Subscriber about the applicable rate used to determine the amount of the Bill Credit.
- Copy of the contract with Northern States Power Company for the Solar*Rewards Community Program
- Copy of the solar panel warranty
- Description of the compensation to be paid for any underperformance
- Proof of insurance
- Proof of a long-term maintenance plan
- · Current production projections and a description of the methodology used to develop production projections
- Community Solar Garden Operator contact information for questions and complaints
- Demonstration to the Subscriber by the Community Solar Garden Operator that it has sufficient funds to operate and maintain the Solar*Rewards Community Program

(Continued on Sheet No. 9-99)

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STANDARD CONTRACT FOR SOLAR*REWARDS COMMUNITY (Continued)

Section No. 9 Original Sheet No. 99

3. Subscriber Data Access and Correction

b. Information Available from the Community Solar Garden Operator (Continued)

The Community Solar Garden Operator is solely responsible for the accuracy of the Subscriber's share of the Community Solar Garden production information forwarded to the Company, and should resolve with the Subscriber any dispute regarding the accuracy of such information.

Subscribers can submit comments to the Company on the accuracy and completeness of its annual report by contacting solarrewardscommunity@xcelenergy.com.

4. Data Retention

The Company will retain the Subscriber's Account Information, Subscriber's Energy Usage Data and information on Bill Credits for as long as required under applicable law.

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Date Filed: 09-30-13 By: David M. Sparby Effective Date: 09-17-14

President and CEO of Northern States Power Company, a Minnesota corporation

Northern States Power Company, a Minnesota corporation Minneapolis, Minnesota 55401

MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2

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President and CEO of Northern States Power Company, a Minnesota corporation

Docket No. E002/M-13-867 & E002/M-13-1015 Order Date: 09-17-14

Section No.

2

Northern States Power Company, a Minnesota corporation Minneapolis, Minnesota 55401

MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2

NET ENERGY BILLING SERVICE RATE CODE A50 18th Revised Sheet No.

AVAILABILITY

Available to any small qualifying facility (SQF) of less than 40 kW capacity who receives non-time of day retail electric service from Company and offsets energy delivered by Company.

RATE

Metering Charge per Month

Single Phase \$3.15 Three Phase \$6.40

Payment per kWh for Energy Delivered to Company in	<u>Oct-May</u>	<u>Jun-Sep</u>	
Excess of Energy Used			
With Retail Non-Demand Metered Service	\$0.11223	\$0.11643	R
With Retail Demand Metered Service	\$0.06700	\$0.06562	R

TERMS AND CONDITIONS OF SERVICE

Energy used by customer in excess of energy delivered by the SQF at the same site during the same billing period shall be billed in accordance with the appropriate non-time of day retail electric rate.

For demand metered General Service customers, the entire kW demand supplied by the Company at the same site during the same billing period shall be billed to the customer according to the appropriate general service demand charge rate.

- Interconnection charges will be assessed by the Company on an individual basis for all costs associated with addition to or modification of Company facilities to accommodate the SQF. The net interconnection charge is the responsibility of the SQF.
- The voltage and phase of customer's generator must be consistent with existing service and approved by the Company.
- The customer must maintain a power factor of the generator as close to unity as is consistent with Company operating standards.

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President, Northern States Power Company, a Minnesota corporation

Order Date: Not Applicable Docket No. E999/PR-15-9

Northern States Power Company, a Minnesota corporation Minneapolis, Minnesota 55401

MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2

PURCHASE AND SALE BILLING SERVICE RATE CODE A51

Section No.

18th Revised Sheet No. 3

AVAILABILITY

Available to any small qualifying facility (SQF) of less than 40 kW capacity who receives non-time of day retail electric service.

RATE

Metering Charge per Month

Single Phase \$5.50 Three Phase \$8.00

Payment Schedule for Energy Delivered to Company	Oct-May	<u>Jun-Sep</u>	_
Energy Payment per kWh	\$0.02707	\$0.02687	R
Capacity Payment for Firm Power per kWh	\$0.00291	\$0.01549	R

DETERMINATION OF FIRM POWER

The SQF will have supplied firm power if during the billing period an on peak capacity factor of at least 65% was achieved. The calculation of the on peak capacity factor will be as follows: the average on peak period metered capacity delivered to the Company for the on peak period of the billing period divided by the greatest 15 minute metered capacity delivered for the on peak period of the same billing period expressed in percent and rounded to the nearest whole percent. If the percent calculated is 65 or greater, capacity payment will be made. If the percent calculated is less than 65, capacity payment will not be made.

TERMS AND CONDITIONS OF SERVICE

- 1. Interconnection charges will be assessed by the Company on an individual basis for all costs associated with addition to or modification of Company facilities to accommodate the SQF. The net interconnection charge is the responsibility of the SQF.
- 2. The voltage and phase of customer's generator must be consistent with existing service and approved by the Company.
- 3. The customer must maintain a power factor of the generator as close to unity as is consistent with Company operating standards.

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President and CEO of Northern States Power Company, a Minnesota corporation

Docket No. E999/PR-14-9 Order Date: Not Applicable

Northern States Power Company, a Minnesota corporation Minneapolis, Minnesota 55401

MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2

SOLAR*REWARDS COMMUNITY PROGRAM (Continued)

Section No. 9 Original Sheet No. 66

TERMS AND CONDITIONS (Continued)

- f. The garden must be located in the service territory of the Company;
- g. Each subscriber to the garden must be a retail customer of the Company and each must be located in the same county or a county contiguous to where the garden is located;
- h. All energy produced by the garden, and all capacity attributable to the garden, shall be assigned to the Company;
- All Renewable Energy Credits (RECs) shall be assigned to the Company under any or all of the following circumstances:
 - (1) Where the garden or any person or entity on its behalf has received or intends to accept a Made in Minnesota benefit, as defined as defined in Minn. Stat. § 216C.411, pursuant to Minn. Stat. §§ 216C.411 through 216C.415
 - (2) Where the garden or any person or entity on its behalf has received or intends to accept a Solar*Rewards benefit, as defined in Minn. Stat. § 116C.7792.
 - (3) Where the garden or any person or entity on its behalf has elected to transfer the solar RECs to the Company under the Standard Contract for Solar*Rewards Community.
 - (4) Where a Value of Solar rate is applicable to the garden.
- j. All terms and conditions apply as stated in the tariffed Standard Contract for Solar*Rewards Community between the Company and the garden operator (as may be varied by terms of any revised tariff, any amended contract or individually negotiated contract between the parties which has been approved or been deemed to have been approved by the Commission);
- k. Where the garden operator has begun the application process the following provisions apply:
 - (1) Prior to the Company processing the application, the garden operator must submit an application fee of \$1,200 to the Company. This application fee may be by check or wire transfer. The application fee is meant to cover the cost to the Company of processing the application.
 - (2) Prior to the Company processing the application, the garden operator must submit a deposit of an amount equal to \$100/kW to the Company. This deposit may be submitted by check or wire transfer. Within thirty (30) days after either the project is completed or the date when the garden operator informs the Company that it will no longer continue pursuing completion of the garden project, or if the project is not completed within the twenty four (24) month timeline (including day-for-day extensions) detailed below, the Company shall return to the garden operator the deposit. When the deposit qualifies to be returned to the garden operator, it shall also include interest. Consistent with Minn. Stat. § 325E.02, the rate of interest will be set annually and will be equal to the weekly average yield of one-year United States Treasury securities adjusted for constant maturity for the last full week in November. The interest rate will be rounded to the nearest tenth of one percent. The rate of interest announced by the Commissioner of Commerce on or about December 15 of each year will be the rate of interest that will be paid on deposits returned during the subsequent calendar year.
- I. Notwithstanding any other law, neither the garden operator nor the subscribers to a garden facility shall be considered a utility solely as a result of their participation in the garden facility.

(Continued on Sheet No. 9-67)

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V

SOLAR*REWARDS COMMUNITY PROGRAM

Section No. 9 Original Sheet No. 67

(Continued)

APPLICATION TO THE PROGRAM

Applications will be accepted and processed on a first-ready, first-served basis. Applications are deemed "Ready" once they meet the following criteria:

- (i) Applications are considered submitted (and will advance to engineering review) once the applicant furnishes all requested documents and information in the Solar*Rewards Community online application system, including:
 - a. the applicant's contact information,
 - b. garden information including system location and specifications,
 - c. application fee and deposit,
 - d. engineering documents, including one-line diagrams, site plan, and Interconnection Application;
- (ii) The applicant has submitted evidence the project has obtained or arranged appropriate insurance or has entered into an insurance broker agreement;
- (iii) The applicant has submitted evidence of control of the Community Solar Garden site;
- (iv) The applicant has submitted evidence of projected subscription at the time of construction;
- (v) The applicant has submitted evidence the project proposal complies with all applicable material terms of the tariff and standard contract and any additional considerations that the Company, solar garden developers, the Minnesota Department of Commerce, the Office of the Attorney General, and interested parties participating in the workgroup have agreed to include in the plan; and
- (vi) The applicant has submitted signed agreements, including Standard Contract for Solar*Rewards Community and the Interconnection Agreement.

Once the operator's application has been submitted according to step (i), the Company will determine its completeness within thirty (30) days for purposes of advancing for engineering review. The Company will approve or reject an operator application within sixty (60) days of determining completeness unless the applicant has agreed to an extension. Where the Company has timely rejected an application, the Company will allow the applicant to provide additional documents or information and the sixty (60) day timeframe will begin anew for the Company to accept or reject the application.

After the Company determines initial application completeness, the applicant will submit information according to steps (ii) – (vi). The applicant shall complete the project within twenty-four (24) months from the Company finding that the application is complete. Failure of the Company to meet the timeframes for completing engineering studies and interconnection cost estimates set forth in the Commission's September 28, 2004 Order in Docket No. E999/CI-01-1023 as implemented in Section 10 of the Company's tariff will extend this twenty-four (24) month period on a day-for-day basis. If the project is not completed within this twenty-four (24) month period (including any day-for-day extension referenced above), then the Company will return the deposit and the garden operator, if it still intends to proceed with the project, will need to reapply and submit a new application fee and deposit.

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President and CEO of Northern States Power Company, a Minnesota corporation

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Docket No. E999/CI-15-755 Information Request MPUC-005 Attachment A.2., Pages 6 of 14

Northern States Power Company, a Minnesota corporation Minneapolis, Minnesota 55401 MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2

RESERVED FOR FUTURE USE

Section No. 9 Original Sheet No. 68

RESERVED FOR FUTURE USE

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President and CEO of Northern States Power Company, a Minnesota corporation

Northern States Power Company, a Minnesota corporation Minneapolis, Minnesota 55401

MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2

STANDARD CONTRACT FOR SOLAR*REWARDS COMMUNITY (Continued)

Section No. 9
Original Sheet No. 70

"Community Solar Garden Allocation" shall mean the monthly allocation, stated in Watts direct current (DC) as a portion of the total nameplate capacity of the Community Solar Garden, applicable to each Subscriber's Subscription reflecting each Subscriber's allocable portion of photovoltaic electricity produced by the Community Solar Garden in a particular Production Month.

"Community Solar Garden Operator" is identified above and shall mean the organization whose purpose is to operate or otherwise manage the Community Solar Garden for its Subscribers. A Community Solar Garden Operator may be an individual or any for-profit or non-profit entity permitted by Minnesota law.

"Community Solar Garden Site" is the location of the single point of common coupling located at the production meter for the Community Solar Garden associated with the parcel or parcels of real property on which the PV System will be constructed and located, including any easements, rights of way, and other real-estate interests reasonably necessary to construct, operate, and maintain the garden. Multiple Community Solar Garden Sites may be situated in close proximity to one another in order to share in distribution infrastructure.

"Community Solar Garden Statutory Requirements" are based on the provisions in Minn. Stat. § 216B.1641 and Minn. Stat. § 216B.1691, and for purposes of this Contract mean the following:

- a. The Community Solar Garden must have not less than five (5) Subscribers;
- b. No single Subscriber may have more than a forty (40) percent interest in the Community Solar Garden;
- c. The Community Solar Garden must have a nameplate capacity of no more than one (1) megawatt alternating current (AC);
- d. Each Subscription shall be sized to represent at least two hundred (200) watts of the Community Solar Garden's generating capacity;
- e. Each Subscription shall be sized so that, when combined with other distributed generation resources serving the premises of each Subscriber, the Subscription size does not exceed one hundred twenty (120) percent of the average annual consumption of electricity over the prior twenty four (24) months by each Subscriber to which the Subscription is attributed (based on the annual estimated generation of the PV System as determined by PVWATTS), provided that if historical electric energy consumption data is not available for a particular subscriber, the Company will calculate the estimated annual electric energy consumption under the process detailed in the Company's rate book applicable to the Solar*Rewards Community Program.
- f. The Community Solar Garden must be located in the service territory of the Company;
- g. Each Subscriber to the Community Solar Garden must be a retail customer of the Company and each must be located in the same county or a county contiguous to where the Community Solar Garden Site is located; and,
- h. Customers who are exempt from the Solar Energy Standard (SES) under Minn. Stat. § 216B.1691, subd. 2(f)d, shall not participate in or subscribe to Community Solar Gardens.

(Continued on Sheet No. 9-71)

Date Filed: 09-30-13 By: David M. Sparby Effective Date: 09-17-14

President and CEO of Northern States Power Company, a Minnesota corporation

Docket No. E002/M-13-867 Order Date: 09-17-14

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STANDARD CONTRACT FOR SOLAR*REWARDS COMMUNITY (Continued)

Section No. 9 Original Sheet No. 73

AGREEMENTS

The Community Solar Garden Operator and the Company agree:

1. Sale of Electricity Generated by the Community Solar Garden. Effective upon the Date of Commercial Operation, the Community Solar Garden shall sell and deliver to the Company at the Production Meter all of the photovoltaic energy produced by the PV System. Payment for the Subscribed Energy which is produced and delivered will be solely by a Bill Credit to Subscribers as detailed below. Payment for Unsubscribed Energy will be paid to the Community Solar Garden Operator at the then current: 1.) Company's avoided cost rate (found in the Company's rate book, Rate Code A51) for solar gardens of 40 kW (AC) capacity or larger, or 2.) Company's average retail energy rate (found in the Company's rate book, Rate Code A50) for solar gardens under 40 kW (AC) capacity. The Community Solar Garden Operator shall not sell any photovoltaic energy generated from the PV System, or any capacity associated with the PV System, to any person other than the Company during the term of this Contract, and the Company shall purchase and own all photovoltaic energy produced by the PV System. This Contract conveys to the Company all energy generated from the PV System and all capacity associated with the PV System for the Term of the Contract.

A. The Company will buy (through Bill Credits to the Subscribers) all Subscribed energy generated by the Community Solar Garden and delivered to the Company during a particular Production Month at the Bill Credit Rate. Each Subscriber to the Solar*Rewards Community Program will receive a Bill Credit at the Bill Credit Rate for electricity generated attributable to the Subscriber's Subscription. Each Subscriber will also be charged for all electricity consumed by the Subscriber at the applicable rate schedule for sales to that class of customer. If the Bill Credit exceeds the amount owed in any billing period, the excess portion of the Bill Credit in any billing period shall be carried forward and credited against all charges. All Bill Credits must be carried forward for at least a twelve (12) month cycle. The Company shall purchase all Bill Credits with the billing statement which includes the last day in February and restart the credit cycle on the following period with a zero credit balance. Consistent with Minn. R. 7820.3800, Subp. 2, the purchase of the Bill Credits will only be made when the Bill Credit amount is more than \$1 due for an existing customer or \$2 or more due a person or legal entity no longer a customer of the Company.

B. A copy of the presently filed Solar*Rewards Community Program tariff of the Company's rate book is attached to this Contract. The rates for sales and purchases of Subscribed Energy shall be changed annually or otherwise as provided by order of the MPUC. The Community Solar Garden Operator shall comply with all of the rules stated in the Company's applicable electric tariff related to the Solar*Rewards Community Program and the tariffed version of this Contract, as the same may be revised from time to time, or as otherwise allowed by an amendment to this Contract approved, or deemed approved, by the Minnesota Public Utilities Commission. In the event of any conflict between the terms of this Contract and Company's electric tariff, the provisions of the tariff shall control.

(Continued on Sheet No. 9-74)

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STANDARD CONTRACT FOR SOLAR*REWARDS COMMUNITY (Continued)

Section No. 9
Original Sheet No. 75

3. Metering Charges and Requirements

A. Metering Charge per Month:
Single Phase \$5.50
Three Phase \$8.00

B. Two (2) Company-owned meters are required to be installed at each service location associated with each Community Solar Garden generation source subject to this Contract. One meter is located at the main service and will record energy delivered to the Community Solar Garden Operator from the Company. The second meter (the "Production Meter") will record energy generated by the PV System only. For the sake of clarity, the amount of energy used as House Power consists of that shown on the meter located at the main service plus electricity recorded as reverse flowing through the Production Meter. The Company shall install, or cause to be installed, own, operate and maintain the Production Meter to measure the AC production of the PV System, at the Community Solar Garden Operator's expense and including the cost of the Production Meter itself. Community Solar Garden Operator will provide all meter housing and socket replacement and rewiring to install both meters. Community Solar Garden Operator shall be charged monthly the metering charge for the main service meter. The metering charge assumes common use of all Company facilities up to the metering point, for both receipt and delivery of energy. Any additional facilities required by Company to accommodate the PV System will require Community Solar Garden Operator to pay an interconnection charge in advance.

- 4. <u>Title, Risk of Loss, and Warranty of Title.</u> As between the Parties, the Community Solar Garden Operator shall be deemed to be in control of the photovoltaic energy output from the PV System up to and until delivery and receipt by the Company at the Production Meter and the Company shall be deemed to be in control of such energy from and after delivery and receipt at such Production Meter. Title and risk of loss related to the photovoltaic energy shall transfer to the Company at the Production Meter. The Community Solar Garden warrants and represents to the Company that it has or will have at the time of delivery good and sufficient title to all photovoltaic energy output and/or the ability to transfer good and sufficient title of same to the Company.
- 5. <u>Interconnection Requirements</u>. The Community Solar Garden Operator must sign an Interconnection Agreement under Section 10 of the Company's rate book, and comply with all of the terms and conditions of that Interconnection Agreement except as otherwise specified in this Contract. The following additional interconnection terms also apply.

A. Term of Interconnection Agreement. While the Company's tariff pertaining to its Interconnection Agreement generally provides that the term of the Interconnection Agreement may be up to twenty (20) years, where the tariffed Interconnection Agreement is used in conjunction with this tariffed Contract, the term of the Interconnection Agreement may end twenty five (25) years after the Date of Commercial Operation.

(Continued on Sheet No. 9-76)

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President and CEO of Northern States Power Company, a Minnesota corporation

Docket No. E002/M-13-867 Order Date: 09-17-14

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STANDARD CONTRACT FOR SOLAR*REWARDS COMMUNITY (Continued)

Section No. 9
Original Sheet No. 76

6. Community Solar Garden Requirements.

- A. The Community Solar Garden Operator shall assure that each of the Community Solar Garden Statutory Requirements is met.
- B. For each Subscriber, there must be a completed and fully-executed Subscriber Agency Agreement and Consent Form (Attachment "A" to this Contract) which is delivered to the Company prior to the Date of Commercial Operation, or prior to adding each Subscriber.
- C. <u>Code Compliance</u>. The Community Solar Garden Operator shall be responsible for ensuring that the PV System equipment installed at the Community Solar Garden meets all applicable codes, standards, and regulatory requirements at the time of installation and throughout its operation.
- D. <u>Project Completion</u>. The Company will determine whether an application from the Community Solar Garden Operator is complete within thirty (30) days of its submission to the Company and approve or reject the application based on engineering review within sixty (60) days of finding it complete unless the Community Solar Garden Operator has agreed to an extension. The date an application shall be considered to be submitted to the Company is the date on which the Community Solar Garden Operator has uploaded to the CSG Application System all documents and information to allow the Company to begin engineering review which include the following:
 - (i) the contact information for the Community Solar Garden Operator;
 - (ii) the Community Solar Garden information, including system location and specifications;
 - (iii) application fee and deposit; and,
 - (iv) engineering documents, including one line diagram, site plan and signed Interconnection application.

Where the Company has timely rejected an application, the Company will allow the Community Solar Garden Operator to provide additional documents or information and the sixty (60) day timeframe will begin anew for the Company to accept or reject the application. The Community Solar Garden Operator shall complete the project and the Date of Commercial Operation shall be within twenty-four (24) months from the Company finding that the application is complete. Failure of the Company to meet the timeframes for completing engineering studies and interconnection cost estimates set forth in the Commission's September 28, 2004 Order in Docket No. E999/CI-01-1023 as implemented in Section 10 of the Company's rate book will extend this twenty-four (24) month period on a day-for-day basis. If the Date of Commercial Operation is not within this twenty-four (24) month period (including any day-for-day extension referenced above), then the Company will return the Deposit and the Community Solar Garden Operator, if it still intents to proceed with the project, will need to reapply and submit a new application fee and deposit.

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(Continued on Sheet No. 9-77)

Date Filed: 09-30-13 By: David M. Sparby Effective Date: 09-17-14

President and CEO of Northern States Power Company, a Minnesota corporation

STANDARD CONTRACT FOR SOLAR*REWARDS COMMUNITY (Continued)

Section No. 9 Original Sheet No. 78

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6. Community Solar Garden Requirements. (Continued)

K. <u>Inverter Capacity</u>. The Community Solar Garden must have an inverter with a capacity of no more than one (1) megawatt alternating current (AC) to assure that the Community Solar Garden has a nameplate capacity of no more than one (1) megawatt AC.

L. <u>Maintenance and Repair of the PV System</u>. The Community Solar Garden Operator shall maintain the PV System and the individual components of the PV System in good working order at all times during the Term of the Contract. If during the Term of the Contract the PV System or any of the individual components of the system should be damaged or destroyed, or taken out of service for maintenance, the Community Solar Garden Operator shall provide the Company written notice within thirty (30) calendar days of the event and promptly repair or replace the damaged or destroyed equipment at the Community Solar Garden Operator's sole expense. If the time period for repair or replacement is reasonably anticipated to exceed one hundred eighty (180) days, the Company shall have the right to request to terminate this Contract by written notice.

M. <u>No Relocation</u>. The PV system shall be located at the Community Solar Garden as shown in its application at all times during the Term of the Contract.

N. <u>Disclosure of Production Information</u>. The Community Solar Garden Operator acknowledges and agrees that, in order for the Company to carry out its responsibilities in applying Bill Credits to each Subscriber's bills for electric service, the Company may be required and shall be permitted to provide access or otherwise disclose and release to any Subscriber any and all production data related to the PV System in its possession and information regarding the total Bill Credits applied by the Company with respect to the PV System and any information pertaining to a Subscriber's Subscription. Any additional detailed information requested by a Subscriber shall be provided only upon the Community Solar Garden Operator's consent in writing or email to the Company, or unless the Minnesota Public Utilities Commission or the Minnesota Department of Commerce requests that the Company provides such information to the Subscriber.

O. <u>Disclosure of Community Solar Garden Information</u>. The Community Solar Garden Operator acknowledges and agrees that the Company may publicly disclose the Community Solar Garden Site, Community Solar Garden Operator, nameplate capacity and generation data of the Community Solar Garden. Additionally, the Company will periodically provide a bill message to Subscribers clarifying that questions or concerns related to their Subscription should be directed to the Community Solar Garden Operator, including a statement that the Community Solar Garden Operator is solely responsible for resolving any disputes with the Company or the Subscriber about the accuracy of the Community Solar Garden production and that the Company is solely responsible for resolving any disputes with the Subscriber about the applicable rate used to determine the amount of the Bill Credit.

(Continued on Sheet No. 9-79)

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President and CEO of Northern States Power Company, a Minnesota corporation

STANDARD CONTRACT FOR SOLAR*REWARDS COMMUNITY (Continued)

Section No. 9 Original Sheet No. 85

14. <u>Renewable Energy Credits (RECs)</u>. Under any of the following conditions, the RECs associated with the Community Solar Garden belong to the Company: (Continued)

The Community Solar Garden Operator hereby automatically and irrevocably assigns to Company all rights, title and authority for Company to register the Subscribed Energy and Unsubscribed Energy and own, hold and manage the RECs associated with all such energy in the Company's own name and to the Company's account, including any rights associated with any renewable energy information or tracking system that exists or may be established (including but not limited to participants in any applicable REC Registration Program and the United States government) with regard to monitoring, registering, tracking, certifying, or trading such credits. The Community Solar Garden Operator hereby authorizes Company to act as its agent for the purposes of registering, tracking and certifying RECs and the Company has full authority to hold, sell or trade such RECs within its own account of said renewable energy information or tracking systems. Upon the request of Company, at no cost to Company, (i) Community Solar Garden Operator shall deliver or cause to be delivered to Company such attestations and/or certifications of the Community Solar Garden and its associated RECs, and (ii) Community Solar Garden Operator shall cooperate with Company's registration and certification of the Community Solar Garden. The Company shall own and retain all RECs associated with Subscribed Energy produced by the Community Solar Garden. The Company will transfer the RECs associated with Unsubscribed Energy annually to the Community Solar Garden Operator, provided the Community Solar Garden Operator completes all actions required to receive these RECs, including but not limited to maintaining an active account in the Midwest Renewable Energy Tracking System (M-RETS) or its successor and makes such requests within 6 months of the production of the Unsubscribed Energy.

A. Definition of Renewable Energy Credits (RECs). "Renewable Energy Credits" or "RECs" are all attributes of an environmental or other nature that are created or otherwise arise from the Community Solar Garden Operator's generation of energy using solar energy as a fuel, including, but not limited to, tags, certificates or similar products or rights associated with solar energy as a "green" or "renewable" electric generation resource, including any and all environmental air quality credits, emission reductions, off-sets, allowances or other benefits related to the generation of energy from the Community Solar Garden PV System that reduces, displaces or off-sets emissions resulting from fuel combustion at another location pursuant to any existing or future international, federal, state or local legislation or regulation or voluntary agreement, and the aggregate amount of credits, offsets or other benefits including any rights, attributes or credits arising from or eligible for consideration in the M-RETS program or any similar program pursuant to any international, federal, state or local legislation or regulation or voluntary agreement and any renewable energy certificates issued pursuant to any program, information system or tracking system associated with the renewable energy generated from the Community Solar Garden PV System. RECs do not include any federal, state or local tax credits, cash grants, production incentives or similar tax or cash benefits for which Community Solar Garden Operator or the Community Solar Garden PV System are eligible or which either receives, or any depreciation, expenses, credits, benefits or other federal, state or local tax treatment for which Community Solar Garden Operator or the Community Solar Garden PV System is eligible or that either receives.

(Continued on Sheet No. 9-86)

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President and CEO of Northern States Power Company, a Minnesota corporation

STANDARD CONTRACT FOR SOLAR*REWARDS COMMUNITY (Continued)

Section No. 9 Original Sheet No. 86

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- 14. <u>Renewable Energy Credits (RECs)</u>. Under any of the following conditions, the RECs associated with the Community Solar Garden belong to the Company: (Continued)
- B. <u>Definition of M-RETS Program</u>. "M-RETS Program" means the Midwest Renewable Energy Trading System program, MPUC Docket No. E999/CI-04-1616 and subsequent or related proceedings.
- C. Ownership of RECs. All RECs associated with the Subscribed Energy shall be assigned to the Company. By participating as a Community Solar Garden Operator under this Contract, the Community Solar Garden Operator hereby assigns to Company all right title and interest of the Community Solar Garden Operator to all RECs arising out of or associated with the generation of Subscribed Energy. None of the Subscribers to the Community Solar Garden shall receive any RECs associated with the Subscribed Energy. The Community Solar Garden Operator warrants and represents to the Company that it has or will have at the time of delivery good and sufficient title to all RECs associated with such Subscribed Energy output and/or the ability to transfer good and sufficient title of all such RECs to the Company. The Company shall be entitled to all RECs generated by the Community Solar Garden PV System for such Subscribed Energy while the Community Solar Garden Operator participates in the service offered in this Contract. The Community Solar Garden Operator hereby automatically and irrevocably assigns to the Company all rights, title and authority for Company to register the Community Solar Garden Operator's RECs associated with Subscribed Energy under the terms of this Contract and to and own, hold and manage these RECs associated with the Community Solar Garden in the Company's own name and to the Company's account, including any rights associated with any renewable energy information or tracking system that exists or may be established in Minnesota or other jurisdictions (including but not limited to the United States government) with regard to monitoring, registering, tracking, certifying, or trading such credits. The Community Solar Garden Operator hereby authorizes Company to act as its agent for the purposes of registering, tracking and certifying these RECs and the Company has full authority to hold, sell or trade such RECs to its own account of said renewable energy information or tracking systems. Upon the request of Company from time to time, at no cost to Company, (i) Community Solar Garden Operator shall deliver or cause to be delivered to Company such attestations / certifications of all RECs, and (ii) Community Solar Garden Operator shall provide full cooperation in connection with Company's registration of the Community Solar Garden Operator's RECs under this Contract and certification of RECs. The Company shall own all RECs arising out of or associated with the generation of Subscribed Energy for all purposes, and be entitled to use them in any manner it chooses.

(Continued on Sheet No. 9-87)

Date Filed: 09-30-13 By: David M. Sparby Effective Date: 09-17-14

President and CEO of Northern States Power Company, a Minnesota corporation

Docket No. E999/CI-15-755 Information Request MPUC-005 Attachment A.2., Pages 14 of 14

Section No. 9

Original Sheet No. 88

Northern States Power Company, a Minnesota corporation Minneapolis, Minnesota 55401 MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2

STANDARD CONTRACT FOR
SOLAR*REWARDS COMMUNITY (Continued)

SIGNATURES

IN WITNESS WHEREOF, the Parties hereto have caused two originals of this Contract to be executed by their duly authorized representatives. This Contract is effective as of the last date set forth below.

(Continued on Sheet No. 9-89)

Date Filed: 09-30-13 By: David M. Sparby Effective Date: 09-17-14

President and CEO of Northern States Power Company, a Minnesota corporation

Docket No. E002/M-13-867 Order Date: 09-17-14

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Distributed Generation Engineering Study Requirements

Scope

This document lists technical requirements for distributed generation engineering studies being performed for large interconnection proposals. The scope of requirements is intended to be from an Area Engineer's perspective and thus certain protection, stability, and other various technical aspects, which will be covered by other engineering groups within Xcel Energy, are omitted. The requirements listed below are also applicable to consultants performing the Distribution (Area Engineering) function of the engineering study.

Requirements

- 1.0 The model shall use a topology that closely resembles the feeder being studied.
- 2.0 The model shall use an appropriate number of spot loads to resemble feeder loading
- 3.0 The model shall include all existing generation if applicable and incorporate the following cases into study scenarios into requirement Section 5 scenarios
 - 3.1. All generation, new and existing, offline
 - 3.2. Existing generation only online
 - 3.3. New and existing generation online
- 4.0 The model shall only include substation components used in normal operation (i.e. bus ties normally open)
- 5.0 The study shall look for all impacts at both minimum and maximum load conditions.
 - 5.1. In, the absence of minimum load data, the study shall assume this value to be 20% of yearly maximum load
 - 5.1.1. For feeders with highly seasonal load (i.e. irrigation pumps or ski area snow making), special consideration shall be used in determining minimum load estimates.
 - 5.2. For PV studies, minimum daytime load shall be used
 - 5.2.1. In absence of minimum daytime load data, the minimum load shall be assumed to be 20% of peak load
 - 5.3. For all other generator types, absolute minimum load shall be used
 - 5.3.1. In absence of absolute minimum load data, the minimum load shall be assumed to be 15% of peak load
- 6.0 The study shall identify all areas of potential islanding and call out each area by the associated upstream protective device
 - 6.1. For an inverter base system, when minimum daytime load is less than 125% of maximum generation.
 - 6.1.1. In NSPM, minimum daytime load is defined as the minimum load in the time period from 10AM-3PM.
 - 6.2. For rotating machines, when minimum load is less than 200% of maximum generation
- 7.0 The study shall show the following voltage conditions and note if outside acceptable limits:
 - 7.1. Steady state voltage conditions. Limit based on ANSI C84.1 Range A.

	Xcel Energy [∞]				DG Interconnection	EDE	AE/SP
	Acer Energy	Ву:	PLD	Prev: 1.1	Engineering Study	DOC#:	AE-DG-1
Date	7-20-15	Apv'd	•	Ver: 1.2	Requirements	Page:	1 of 3

- 7.1.1. Source send out voltage for steady state voltage studies shall use LTC or regulator set point $+\frac{1}{2}$ of deadband
- 7.1.2. Fixed capacitors should be modeled as such
- 7.1.3. Switched capacitors, at a minimum, shall be modeled with voltage setpoints. Modeling other control modes should be considered when possible.
- 7.2. Percent voltage flicker from generation changing states from full on to full off shall meet:
 - 7.2.1. Limit for individual PV systems is 1.5%.
 - 7.2.2. Limit for aggregate PV on feeder is 2%.
 - 7.2.3. Limit for rotating machines is 2%.
- 8.0 The study shall propose voltage mitigation options, only for conditions outside of specified values, in the following order:
 - 8.1. Utilizing power factor control mode on the inverter.
 - 8.1.1. The study shall note required power factor needed to mitigate adverse voltage effect.
 - 8.1.1.1. The range of power factor that shall be used for voltage mitigation is ± 0.95 .
 - 8.1.2. If a fixed power factor does not mitigate voltage violations for the entire facility size, the study shall note the maximum MVA that could be connected utilizing fixed power factor as the only mitigation.
 - 8.1.3. The study shall note the additional reactive power requirements resulting from inverter power factor control mode.
 - 8.1.3.1. The study shall identify when inverter equipment limitations creates KW production curtailment due to this requirement.
 - 8.2. Reconductoring portions of the feeder
 - 8.2.1. The study shall note the length and conductor sizes of the section or sections for which reconductoring will reduce the voltage effects to be within acceptable limits.
 - 8.2.2. The study shall chose sections for reconductoring that requires the minimum amount of materials to mitigate voltage effects.
- 9.0 The study shall identify reverse power flow across voltage regulators and LTCs
- 10.0 The study shall identify equipment overloads created by the addition of generation on the circuit.
 - 10.1. The study shall list the equipment type and percent overload
 - 10.2. The study shall identify the equipment size needed to mitigate the overload
- 11.0 The study shall check for effective grounding, for three-phase generation systems greater than 100KW in capacity, as defined by IEEE 1547 and adhere to requirements below depending on generation type.
 - 11.1. For Conventional (Rotating) Generators: $1.5 \le (X0DG) / (X1DG) \le 2.5$
 - 11.1.1. The ratio R0/X1 < 1 shall be met for all ground referencing configurations
 - 11.2. For DG Facilities with an Inverter Interface:
 - 11.2.1. $X_{0,DG} = 0.6 \ p.u \pm 10\%$ Note: 1 p.u. is based on $Z_{Base} = \frac{kv^2}{MVA_{DER}}$

	VII				DG Interconnection	EDE	AE/SP
	Xcel Energy [™]	Ву:	PLD	Prev: 1.1		DOC#:	AE-DG-1
Date	7-20-15	Apv'd		Ver: 1.2	Requirements	Page:	2 of 3

Additional Notes:

- a) Sum of MVA ratings of DER inverter nameplates and high-side (medium voltage) kV rating of interconnection transformer are used in determining required zero-sequence impedance ($X_{0,DG}$) for composite facility
- b) The MVA and high-side kV rating of the interconnection transformer is used for determining grounding bank and neutral reactor sizing c) The impedance of the interconnection transformer is needed for neutral reactor sizing

11.2.2.
$$\frac{X_{0,DG}}{R_{0,DG}} \ge 4$$

- 11.3. Ground referencing equipment shall be designed to withstand a minimum of $V_0=4\%$ and remain connected Note: I_0 can be approximated as $I_0=\frac{V_0}{Z_0}$
- 11.4. Ground referencing equipment shall have 5-second withstand ratings that exceed maximum available short-circuit current for close in faults
- 12.0 The study shall list short circuit current values for before and after the generator is connected
- 13.0 The study shall list fault contributions from both the substation and generator for the case of generation being online. (Values are used for checking relay desensitization)
- 14.0 All customer/developer contact regarding the interconnection project and associated study shall be done through Xcel Energy
- 15.0 The study final draft shall omit Xcel Energy non-public data and Customer confidential information
- 16.0 The engineering study draft report shall be submitted to Xcel Energy within 15 business days after the project information is submitted to Consultant for the engineering study.
 - 16.1. Any additional supporting and substantiation data created during the study shall be submitted with the final report.
- 17.0 The engineering study final report shall document the results for all requirements in this document
 - 17.1. The system model created shall be submitted electronically to Xcel Energy along with the final report.

0	Xcel Energy [∞]
Date	7-20-15

			DG Interconnection
Ву:	PLD	Prev: 1.1	Engineering Study
Apv'd	:	Ver: 1.2	Requirements

EDE	AE/SP
DOC#:	AE-DG-1
Page:	3 of 3

Distributed Generation Engineering Study Requirements

Scope

This document lists technical requirements for distributed generation engineering studies being performed for large interconnection proposals. The scope of requirements is intended to be from an Area Engineer's perspective and thus certain protection, stability, and other various technical aspects, which will be covered by other engineering groups within Xcel Energy, are omitted. The requirements listed below are also applicable to consultants performing the Distribution (Area Engineering) function of the engineering study.

Requirements

- 1.0 The model shall use a topology that closely resembles the feeder being studied.
- 2.0 The model shall use an appropriate number of spot loads to resemble feeder loading
- 3.0 The model shall include all existing generation if applicable and incorporate the following cases into study scenarios into requirement Section 5 scenarios
 - 3.1. All generation, new and existing, offline
 - 3.2. Existing generation only online
 - 3.3. New and existing generation online
- 4.0 The model shall only include substation components used in normal operation (i.e. bus ties normally open)
- 5.0 The study shall look for all impacts at both minimum and maximum load conditions.
 - 5.1. In, the absence of minimum load data, the study shall assume this value to be 20% of yearly maximum load
 - 5.1.1. For feeders with highly seasonal load (i.e. irrigation pumps or ski area snow making), special consideration shall be used in determining minimum load estimates.
 - 5.2. For PV studies, minimum daytime load shall be used
 - 5.2.1. In absence of minimum daytime load data, the minimum load shall be assumed to be 20% of peak load
 - 5.3. For all other generator types, absolute minimum load shall be used
 - 5.3.1. In absence of absolute minimum load data, the minimum load shall be assumed to be 15% of peak load
- 6.0 The study shall identify all areas of potential islanding and call out each area by the associated upstream protective device
 - 6.1. For an inverter base system, when minimum daytime load is less than 125% of maximum generation.
 - 6.1.1. In NSPM, minimum daytime load is defined as the minimum load in the time period from 10AM-3PM.
 - 6.2. For rotating machines, when minimum load is less than 200% of maximum generation
- 7.0 The study shall show the following voltage conditions and note if outside acceptable limits:

	VII				DG Interconnection	EDE	AE/SP
	Xcel Energy [™]	Ву:	PLD	Prev: 1.0	Engineering Study	DOC#:	AE-DG-1
Date	8-28-14	Apv'd:		Ver: 1.1	Requirements	Page:	1 of 3

- 7.1. Steady state voltage conditions. Limit based on ANSI C84.1 Range A.
- 7.2. Percent voltage flicker from generation changing states from full on to full off:
 - 7.2.1. Limit for PV systems is 1.5%.
 - 7.2.1.1.Limit for cloud cover scenarios, predicted to drop from full output to 20% of nameplate output is 1% flicker.
 - 7.2.2. Limit for rotating machines is 2%.
- 8.0 The study shall propose voltage mitigation options, only for conditions outside of specified values, in the following order:
 - 8.1. Utilizing power factor control mode on the inverter.
 - 8.1.1. The study shall note required power factor needed to mitigate adverse voltage effect.
 - 8.1.2. The study shall note the additional reactive power requirements resulting from inverter power factor control mode.
 - 8.1.2.1. The study shall identify when equipment limitations creates KW production curtailment due to this requirement.
 - 8.2. Reconductoring portions of the feeder
 - 8.2.1. The study shall note the length and conductor sizes of the section or sections for which reconductoring will reduce the voltage effects to be within acceptable limits.
 - 8.2.2. The study shall chose sections for reconductoring that requires the minimum amount of materials to mitigate voltage effects.
- 9.0 The study shall identify reverse power flow across voltage regulators and LTCs
- 10.0 The study shall identify equipment overloads created by the addition of generation on the circuit.
 - 10.1. The study shall list the equipment type and percent overload
 - 10.2. The study shall identify the equipment size needed to mitigate the overload
- 11.0 The study shall check for effective grounding, for three-phase generation systems greater than 100KW in capacity, as defined by IEEE 1547 and adhere to requirements below depending on generation type.
 - 11.1. For Conventional (Rotating) Generators: $1.5 \le (X0DG) / (X1DG) \le 2.5$
 - 11.2. For DG Facilities with an Inverter Interface:
 - 11.2.1. X0DG = $0.6 \pm 10\%$ p.u. and X0DG / R0DG ≥ 4
 - a) where 1 p.u. is based on kV 2 / MVA Ω :
 - b) with the total MVA rating of the DG Facility (sum of Distributed Generation Interconnection Transformer's MVA ratings) and high side kV rating of the DGIT(s) for Grounding Transformer sizing; or
 - c) the MVA and high side kV rating of the DGIT for NGR sizing.
 - d) DG interface transformer (DGIT) MVA rating is assumed to be approximately equal to the generation capacity
 - e) Grounding Transformers shall be designed to withstand a minimum of 4% V0 and remain connected.
 - 11.3. The ratio R0/X1 < 1 shall be met for all ground referencing configurations

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- 11.4. The short term withstand rating of the grounding bank shall be greater than the transformers maximum current contribution to a ground fault.
 - 11.4.1. The 2-second withstand time rating shall be the minimum acceptable value for this requirement.

Notes: Adherence to 5-second or 10-second rating is strongly preferred.

11.5. The continuous current rating of the grounding bank shall be greater than the current associated with a utility system voltage imbalance of V0=4%.

Notes: I0=V0/Z0 can be used as a conservative estimate in place of a full symmetrical components calculation. Grounding transformers are sometimes rated by neutral current which is three times the winding current. In=3*I0

- 12.0 The study shall list short circuit current values for before and after the generator is connected
- 13.0 The study shall list fault contributions from both the substation and generator for the case of generation being online. (Values are used for checking relay desensitization)
- 14.0 All customer/developer contact regarding the interconnection project and associated study shall be done through Xcel Energy
- 15.0 The study final draft shall omit Xcel Energy non-public data and Customer confidential information
- 16.0 The engineering study draft report shall be submitted to Xcel Energy within 60 business days after the project information is submitted to Consultant for the engineering study.
 - 16.1. Any additional supporting and substantiation data created during the study shall be submitted with the final report.
- 17.0 The engineering study final report shall document the results for all requirements in this document
 - 17.1. The system model created shall be submitted electronically to Xcel Energy along with the final report.

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Xcel Energy

NSPM Network Connected PV Recommended Practice

Based on Evaluation of Industry Practices, Standards and Experience

Sponsors:

System Planning and Strategy (NSPM) Electric Distribution System Performance (EDSP)

Revision 2 Issued

June 17th, 2014

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Participant

The following Xcel Energy subject matter experts and managers reviewed and affirmed this recommended practice for use effective November 22nd of 2013:

Brian Amundson, NSPM Sponsor Craig Groeling, EDSP Sponsor

Shawn Bagley Kelly Bloch Joel Limoges Ward Scharmer Rodney Sgrignoli Keith Therence Thomas Yohn

Version History

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	Date	Version	Change
		Number	
	11/22/2013	0.0	New Issue- "Effective Date"
	04/07/2014	1.0	Revision to designate document as Confidential; Administrative change.
	06/17/2014	2.0	Modifications made to clarify intent of document provisions, Remove
			Confidential

NSPM Network Connected PV Recommended Practice

1. Scope and Summary

The following is a review of current standards and practices for the interconnection of PV to area and spot secondary networks, with proposed guidelines based on industry practices as well as Xcel Energy's experience. Descriptions of networks for both spot and grid are found in IEEE 1547 definitions and should be utilized for this document. For the purposes of this document, DG should be understood as inverter based PV generation.

2. Industry Standards, Guidelines or Processes Covering Secondary Network

The IEEE 1547 series of technical standards provides the requirements and recommended practices for interconnection of distributed resources (DG) to the utility distribution system; with the series covering inverter based generation interconnects to secondary networks. The specific documents covering secondary networks are IEEE 1547 which is an industry "Standard for Interconnecting Distributed Resources with Electric Power Systems", IEEE application guide 1547.2 for IEEE 1547 and 1547.6 being the "Recommended Practice for Interconnecting Distributed Resources with Electric Power Systems Distribution Secondary Networks". The 1547 standard and associated recommended practices or application guides do not directly establish DG limits, but provide recommendations relevant to the performance, operation, testing, safety considerations, and maintenance of the DG interconnection to a secondary network. Guidance does however indirectly imply or point to reasonable levels of inverter based generation that can be applied to spot networks.

Along with the 1547 series, the FERC Small Generation Interconnect Process (SGIP) is a process that is commonly reflected in state PUC rules developed or revised after FERC's approval of the SGIP in 2006. FERC's Small Generation Interconnection SGIP provides for application screens for spot networks, as well as a process to study proposed DG installations that do not pass the SGIP screens.

2.01. Spot Network Screen (Aggregate Network Installed DG)

In FERC's SGIP screens, for interconnection of a proposed Small Generating Facility to the load side of spot network protectors, the proposed Small Generating Facility must utilize a certified inverter-based equipment package and, together with the aggregated other inverter-based generation, shall not exceed the smaller of 5 % of a spot network's maximum load or 50 kW¹. The network relay's power characteristic are usually tilted and offset to some degree for real power flows in the reverse direction, but remain highly sensitive to three phase reverse power flows. With such sensitivity, the introduction of generation on the secondary network has the potential of creating non-fault related power flows in the reverse direction that can cause network protectors to open. Generalized analysis of network relay settings result in a criteria that network protector will open for reverse power of 5% or more of the network protector

¹ FERC Small Generator Interconnection Procedures (SGIP), effective August 26, 2006

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rating.² A note in 1547 section 8.1.4.2 indicates that "When required by the authority who has jurisdiction over the DR interconnection, a study may be conducted to determine that all of the requirements of this subclause can be met when the aggregate DR installed on a spot network exceeds 5% of the spot network's maximum load." It should be noted that for newer network relays, load should be considered the real power component as the network protectors are insensitive to the reactive power component and the current options are usually not sensitive enough to be the limiting element. The 5% limit is based on reasonably meeting the 1547 requirements for distribution secondary spot networks with some of the specific requirements noted below.

"Any DR installation connected to a spot network shall not cause operation or prevent reclosing of any network protectors installed on the spot network. This coordination shall be accomplished without requiring any changes to prevailing network protector clearing time practices of the Area EPS."

"Connection of the DR to the Area EPS is only permitted if the Area EPS network bus is already energized by more than 50% of the installed network protectors."

"The DR output shall not cause any cycling of network protectors."

2.02. Grid Network Screen (Aggregate Network Installed DG)

IEEE Industry standards and the FERC SGIP do not address grid or area network screens to be applied. In a limited review of various state rules, some PUC's have used the spot network 5% screen based on maximum load and applied it to area networks.⁴ Typically a maximum limit for grid networks without detailed study applied is 500 kW. Texas utilizes a screen of 25% of minimum grid load⁵ and in Connecticut; a screen using 3% of total area (grid) network maximum transformer connected kVA has been utilized as reflected in the interconnection requirement below.

"A Generating Facility proposed to be interconnected to the load side of an Area Network protector must utilize an inverter-based equipment package and, when aggregated with other inverter-based generation, shall not exceed 50 kW at any location. A location is defined as any manhole or service box. This criteria is designed to ensure that no more than 50 kW of DG is located between the same set (s) of cable limiters. In addition, the aggregate DG interconnected to an area network will be limited to 3% of the maximum network transformer connected kVA with the feeder supplying the largest number of network units out of service, or a maximum of 500 kW, whichever is less."

⁶ The Connecticut Light and Power Company and The United Illuminating Company Generator Interconnection Technical Requirements

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² P1547.6 Minutes February 2-3 2006 Page 21

³ IEEE P1547, IEEE Standard for Interconnecting Distributed Resources with Electric Power Systems

⁴ Pa Code 75.40, Level 4 Interconnection review; IL PUC, Title 83 Section 466.80 Level 3 review,

⁵ Texas State PUCT Rule 25.211, Interconnection of On-Site Distributed Generation (DG)

A similar 3% maximum can be found in EPRI training material and notes that it is subject to further deliberation.⁷ This limit is based on the settings of a non-time delayed directional overcurrent network protector relay (MPCV) using typical settings. The 3% criteria looks at the maximum inverter based generation that can be accommodated with typical settings and equivalent network transformer X/R ratio. It assumes that under a three phase fault condition on an adjacent substation feeder (non-network), the network load will draw no power due to low voltage and that inverter generation will be a constant current source feeding back into the network protector. With inverter levels above approximately 3% of connected kVA capacity, the study indicated that this backfeed could cause the network protector to open.

Both limits are similar considering that the desired peak loading on a network transformer is approximately 60-70% of nameplate, using 5% of 60% of the nameplate ratings results in 3% of nameplate. Limits based on maximum load or transformer capacity are easier to implement due to more readably available information on network maximum loads and connected capacity.

2.03. Spot and Grid Network Facility Level Screen

IEEE Industry standards and the FERC SGIP do not directly address grid or area network facility level screens that can be applied. However some direction is provided in the 1547.2 application guide to 1547 and by other Utility applied criteria.

The Application Guide suggests that for spot networks that "if the prevailing practice of the utility does not to allow time delay of network protector tripping for reverse power conditions, only insignificant amounts (less than 25% of the minimum load) of inverter-interfaced, and load-coincident, generation can be installed. Inverter-based DR have the advantage that fault current is very limited (to about 100% to 200% of normal load current). In addition, an inverter can respond rapidly to signals that control its power output level. To avoid protector cycling, the exact load point at which tie-line control must be initiated has to be determined based on the minimum loading of the lightest-loaded protector serving the spot network (i.e., the facility minimum divided by the ratio of the minimum protector to average protector load)."

"If DR generation exceeds the onsite load, even momentarily, power flows from the network toward the primary feeders, and the network relays will open their network protectors and isolate the network from its EPS supply. Minimum site loads (e.g., late at night or on weekends) may severely limit the size or operating hours of a DR. Even if a DR is sized to the site's minimum load, consideration has to be given to the possibility of a sudden loss of a large load, which might reverse power flow through the network units."

Recommended practice 1547.6 gives a method to define a screen by evaluating an acceptable ratio of DG capacity to facility minimum loading. The minimum loading is preferably determined through actual load measurements over a full year of operation. Area networks require additional study of loading at the specific area on a grid network where the PV is to be

⁹ Same Reference as 7, Section 8.1.4.2.1

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⁷ EPRI, Seattle Washington Low-Voltage Network Training Material August 20-22, 2013, Prepared by David R Smith, P.E.

⁸ IEEE P1547.2/D6, Draft Application Guide for IEEE 1547, Standard for Interconnecting Distributed Resources with Electric Power Systems, Section 8.1.4.2.3

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installed, with the area studied being limited by the surrounding network protectors connecting the specific section of the grid. It is also noted that for new installations or where information is not available, estimates of minimum loading may be used. No recommended ratio is specified or recommended in standards or recommended practices; however it is noted in 1547.6 that one utility specifies a maximum DG capacity up to 1/15th of the facilities measured annual minimum load, which is applied to both spot and grid networks.

2.03.01. Minimum Load Relaying

Facility PV limits can be increased significantly from the facility screen level with the addition of relaying to compare facility loading to PV generation. These relays insure minimum power consumption and are intended to prevent unnecessary network loss due to the potential of power flow back into the network from PV generation. Two types of relays schemes to insure minimum power consumption are the Minimum Import Relay (MIR) and Comparative Relay (CR).

The additions of the MIR or CR relaying have no impact on network limits. Increases above network limits would take a detailed evaluation of relay protective functions, equipment ratings and flows on the network.

3. Existing MN Rules and Criteria

The existing rules and interconnection guidelines provide no screens for the expedited installation of PV systems on networks. The following rules and provisions can be found:

3.01. Minnesota Rules and Interconnection Process

Generation System will not be interconnected with a "networked" system ¹⁰

3.02. Minnesota Network PV Pilot Requirements

This pilot project required certified inverters for PV generation and direct connect machines were not allowed. The criteria applied for this pilot are as follows¹¹:

- Additional protective relaying system is not required if:
 - Minimum load > 20 times the generation nameplate as measured instantaneously (Requires previous 12 months of data. Subject to revocation)
 - Protective relaying requirements:
 - Minimum Load Relay (Minimum Import Relay, MIR) Trip the Generation instantaneously if generation rated output exceeds 25% of the actual service load
 - Comparative relaying system

Prevent the Generation output from exceeding 50% of the service demand

¹¹ Interconnection of MN Distributed Generation – Technical Meeting May 31, 2012 Division of Energy Resources, Minnesota Department of Commerce Page 7 of 12

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¹⁰ Minnesota Electric Rate Book-MPUC NO. 2, Section 10, Original Sheet No. 87

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- Protective relaying systems proposed by customer and evaluated for approval by Xcel Energy
- All equipment providing relaying functions shall meet or exceed ANSI/IEEE Standards for protective relays, i.e. C37.90, C37.90.1 and C37.90.2
- Protective Devices and System per Tariff Section 10.

4. NSPM Recommended Practice for Network Connected PV

Based on a review of the industry standards, guidelines, practices and Xcel Energy's experience with existing network connected PV, the following recommended screens and guidelines are to be used for installation of PV on networks in the NSPM service territory under existing tariffs.

These screens and guidelines should be considered supplemental to the FERC SGIP, with the SGIP process to be followed for Secondary Network interconnects. Any proposed network PV interconnection that passes the screen thresholds can be interconnected with little or no study. There are additional screens in the SGIP for interconnection to distribution systems that are not specifically covered, but apply to all distribution interconnects. The 1547 standard and 1547.6 recommended practices shall be followed to avoid adverse impacts to a secondary network. Failure to pass the screens will require detailed study of the proposed PV interconnect following Level 3 of the SGIP.

Definitions

<u>PV AC rating</u>: The greater of the inverter AC nameplate rating or 95% of the PV DC rating. Systems of multiple inverters and panels shall be aggregated for the basis of determining PV AC rating. (The PV AC rating shall be utilized for the evaluation of all PV power (Volt-Amp) rating requirements in this document. The definition applies to "PV AC maximum capacity" and "inverter-based generation".)

Customer Load: See Service Load

<u>Facilities Study:</u> A study that determines exactly what must be done to interconnect the facility to the utility electric system, including equipment and costs. This usually follows a system impact study.¹²

<u>Feasibility Study:</u> A preliminary study that can determine if additional facilities are necessary for the proposed project to interconnect to the utility. This study does not go into as much detail as a system impact study and facilities study. This usually precedes a system impact study. For Network connected DR, the impacts of DR on network protector cycling should be reviewed.

<u>Secondary network:</u> An AC distribution system where the secondaries of the distribution transformers are connected to a common network for supplying electricity directly to consumers. There are two types of secondary networks: grid networks (also referred to as area networks or street networks) and spot networks.

¹² Definition from: Interconnection Guidebook For Developers of Small Scale Renewable energy generation systems, EnergyTrust of Oregon

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System Impact Study: A study that focuses on the electric system impacts that would result if the proposed facility were interconnected without modifications. This generally follows a feasibility study and precedes a facilities study.¹²

<u>Grid network:</u> A secondary network system with multiple wires interconnected to separated network units (protectors and relays) designed to serve multiple geographically separate customers. Designed to provide highly reliable electrical service to a group of customers and typical found in downtown areas of major cities. A grid network is also referred to as an area network or a street network. A grid network must be treated as a spot network if there are less than three delivery points

<u>Largest Circuit Verification</u>: The minimum allowable load should be based on evaluating Minimum Loading with the contingency of losing the largest customer(s) largest load center branch circuit with the next largest circuit out for maintenance, with 20-30% margin.

Minimum Load: For PV installations, the minimum daytime load of the customer. Minimum loading should be determined from a long term analysis. An estimate of minimum loading can be obtained through the use of available metering information and/or a short term load recording. Customer usage data generated by sub-metering or building automation systems may be used for this purpose if available and validated. The method used to estimate minimum loading should adequately capture facility off-peak daytime use and should account for seasonal variations. Atypical usage can occur for facilities such as convention centers and sporting facilities. Utility can apply additional margins to minimum load based on data confidence and ability to estimate minimum loading. Minimum daytime usage should be documented by the Utility and verified with interconnecting retail customer. (Definition also applies to Minimum Service Load)

Minimum load relay: A relay that monitors load and generation to ensure that more load than generation is maintained. Relay settings shall ensure no power backflow into the distribution system for both steady state and contingency situations. Relay will trip or curtail generation to maintain sufficient load to generation margins.

<u>Service Load:</u> Service load is the retail customer's single metered real time load without generation load reductions.

<u>Service Demand</u>: Service demand is the retail customer's single metered real time load including generation load reductions.

<u>Spot network:</u> A small network, usually at one location, consisting of two or more primary feeders, with network units (transformers, relays and protectors) with one or more load service connections. A spot network usually feeds one customer or part of a building; some may serve more than one building. Typically found within modern commercial buildings such as a hospital, convention center or sporting facility to provide high reliability of service.

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Network Screens for Interconnection of PV

Category ^a	Inverter Based/PV Criteria
Screen for Spot Network	 PV AC maximum capacity shall be less than 1/15th of the retail customer's Minimum Service Load without application of minimum load relaying. The aggregated inverter-based generation tied to a spot network, shall not exceed the smaller of 5% of a spot network's maximum load without application of minimum load relaying^b or 50 kW without a Feasibility Study.
Screen for Grid Network	 PV AC maximum capacity shall be less than 1/10th of the retail customer's Minimum Service Load without application of minimum load relaying. The aggregated inverter-based generation tied to a grid network, shall not exceed the smaller of 5% of a grid network's maximum load without application of minimum load relaying or 250 kW without a Feasibility Study.

Minimum Load Relaying Options and Criteria:

If the proposed PV does not pass the above screening criteria, the application of one of the minimum load relaying options as listed below will be required.

Dynamically controlled inverters (DCI) can be utilized in combination with minimum load relaying to curtail PV generation prior tripping¹³. Where the impact of an unintentional operation of a network protector is limited to the interconnecting customer's facility, inverter(s) with minimum load relaying functionality may be used upon review and approval by Xcel Energy Engineering during the application process.

¹³ NREL, Photovoltaic Systems Interconnected onto Secondary Network Distribution Systems- Success Stories, Section 5.1, pages 27-30

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Minimum Load Relaying Options ^c	Relay Criteria
Minimum Import Relay (MIR)	 MIR Relay shall monitor retail customer's Service Load. MIR relay shall trip or curtail PV generation below set limits when retail customer's Service Load drops to less than 200% of PV system AC rating. For spot networks, relay settings should be checked against Minimum Load determined by Largest Circuit Verification.^d
Comparative Relay (CR)	 CR Relay shall monitor retail customer's Service Demand. CR Relay shall monitor the aggregate AC generation output of the retail customer's installed PV. CR relay shall trip or curtail PV generation below set limits when PV generation is greater than 100% of Service Demand. Relay shall trip PV generation prior to reaching Relaying Systems sensitivity or accuracy limits, plus an amount determined by Largest Circuit Verification.^e For spot networks, relay settings should be checked against Minimum Load determined by Largest Circuit Verification.^d
Other Proposed Control and Relaying Schemes Meeting the Intent of MIR Relaying and IEEE 1547.6	• Prior to a full revision to this recommended practice, new technologies may become available meeting the intent of minimum load relaying. This recommended practice allows for an exemption request by Customer for Utility Grade ¹⁴ control and relaying schemes meeting the intent of IEEE 1547.6 and this recommended practice. An exemption may be granted upon review and approval by a qualified Xcel Energy engineer. Such requests shall be made during the application process and additional review costs and/or time for project approval are applicable. A cost and time estimate for this additional review can be provided as part of the application review process.

¹⁴ Meet or exceed ANSI/IEEE Standards for protective relays, i.e., C37.90, C37.90.1 and C37.90.2.

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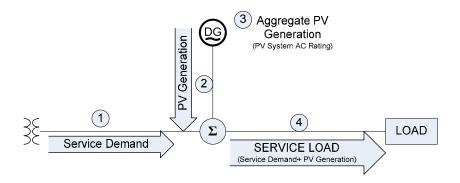
- I. Only certified inverter generation is allowed on a network, direct connect machines are not allowed due to out-of-step voltage withstand, synchronizing, and high fault contribution issues.
- II. Large margins are needed between projected minimum load and maximum PV output unless there is a high speed margin detection system with PV output curtailment. Due to diversity and multiple delivery points, a grid network can safely use smaller multiples for margins.
- III. A grid network must be treated as a spot network if there are less than three delivery points, as the degree of diversity is low and single loads may be a large percentage of the total load.
- IV. PV connections to high density urban grid or spot networks tend to be self limiting by roof space. Most grid networks are in a high density area and will have significant load to offset the generation. Spot networks in other locations can have ample roof space available for PV to cause serious service issues.
- V. Spot networks do not have the load diversity as grid networks and are subject to greater variations in load and can have a single large load on one circuit that is a much higher percentage of the total.
- ^b If network connected PV, without minimum load relaying, results in notable adverse network impacts, minimum load relaying shall be installed to trip or curtail PV generation. Aggregate network screens take precedence over customer level screens when evaluating an interconnect request.
- ^c All minimum load relaying functions shall meet or exceed ANSI/IEEE Standards for protective relays. Relaying with margins as specified in this document shall utilize three phase monitoring. Minimum load relaying shall use instantaneous elements with no time delay to trip or curtail generation.
- ^d Utility shall document calculations of minimum loading with Largest Circuit Verification and review with interconnecting retail customer to obtain agreement. Decreases in documented minimum loading that result in network performance issues as identified in IEEE 1547.6 may require changes to relay settings from those specified. Changes in relay settings may result in increased opening or curtailment of the PV system.
- ^e A Relay System is an assembly that usually consists of measuring units, relay logic, communications interfaces, computer interfaces, and necessary power supplies (IEEE-C37.100).

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^a There are additional screens in FERC's SGIP for interconnection to distribution systems that are not specifically covered in this document, but apply to all distribution interconnects. The 1547 standard and 1547.6 recommended practices shall be followed to avoid adverse impacts to a secondary network.

Appendix A

Minimum Import and Comparative Relaying Description



Minimum Import Relay (MIR)

Trip or Curtail When: <u>Service Load</u> < 200% of <u>PV System AC Rating</u>

(3)

Comparative Relay (CR)

Trip or Curtail When: <u>PV Generation</u> > 100% of <u>Service Demand</u>

