



414 Nicollet Mall  
Minneapolis, MN 55401

December 14, 2018

—Via Electronic Filing—

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

RE: PETITION—TARIFF REVISIONS  
UPDATING GENERIC STANDARDS FOR UTILITY TARIFFS FOR  
INTERCONNECTION AND OPERATION OF DISTRIBUTED GENERATION  
FACILITIES ESTABLISHED UNDER MINN. STAT. §216B.1611  
DOCKET NOS. E999/CI-16-521 & E002/M-18-714

Dear Mr. Wolf:

Northern States Power Company, doing business as Xcel Energy, submits the enclosed tariff revisions in redline and final format, as shown in Attachment A, in compliance with the Commission's August 13, 2018 Order Establishing Updated Interconnection Process and Standard Interconnection Agreement.

We have electronically filed this document with the Minnesota Public Utilities Commission, and copies have been served on the parties on the attached service list. Please contact Amber Hedlund at [amber.r.hedlund@xcelenergy.com](mailto:amber.r.hedlund@xcelenergy.com) or (612) 337-2268 or me at [holly.r.hinman@xcelenergy.com](mailto:holly.r.hinman@xcelenergy.com). or (612) 330-5941 if you have any questions concerning this filing.

Sincerely,

/s/

HOLLY HINMAN  
REGULATORY MANAGER

Enclosures  
c: Service Lists

STATE OF MINNESOTA  
BEFORE THE  
MINNESOTA PUBLIC UTILITIES COMMISSION

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

IN THE MATTER OF THE PETITION OF  
NORTHERN STATES POWER COMPANY  
TARIFF REVISIONS TO IMPLEMENT THE  
UPDATED PROCESSES AND  
INTERCONNECTION AGREEMENT FOR  
DISTRIBUTED GENERATION

DOCKET NO. E002/M-18-714,

IN THE MATTER OF UPDATING THE  
GENERIC STANDARDS FOR THE  
INTERCONNECTION AND OPERATION OF  
DISTRIBUTED GENERATION FACILITIES  
ESTABLISHED UNDER MINN. STAT. §  
216B.1611

DOCKET NO. E999/CI-16-521

**PETITION**

### INTRODUCTION

Northern States Power Company, doing business as Xcel Energy, submits tariff revisions in compliance with the Commission’s August 13, 2018 *Order Establishing Updated Interconnection Process and Standard Interconnection Agreement* in Docket No. E999/CI-16-521. The August 2018 Order requires Xcel Energy to file updated tariffs by December 26, 2018 consistent with the Commission’s adoption of the Minnesota Distributed Energy Resources Interconnection Process (MN DIP) and the Distributed Energy Resource Interconnection Agreement (MN DIA) (“interconnection standards”).<sup>1</sup> The Company’s proposed tariffs are presented in redline and final formats, as shown in Attachment A.

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<sup>1</sup> See Order Point 18.

We note that we are submitting two separate petitions in parallel with this request in Docket Nos. E002/M-13-867 and E002/M-13-1015. These other petitions include redline tariff changes specific to the Solar\*Rewards Community and Solar\*Rewards programs that do not arise directly from the changes to the statewide interconnection rules. We request that the Commission take up these three petitions together, as the Company is planning to deploy IT system changes in an efficient and comprehensive way, and the Commission's consideration of all proposed changes in tandem will enable the most efficient and cost-effective system upgrades required to comply with the order and facilitate other changes. As with the tariff changes proposed for the interconnection process, the Company has vetted many of these tariff changes with stakeholders.

Specifically, we request that the Commission:

- Approve the proposed tariff changes necessary to implement the state's adoption of the updated interconnection standards; and,
- Consider in parallel with this Petition the Company's requests filed contemporaneously in the Solar\*Rewards Community and Solar\*Rewards dockets.

## **I. SUMMARY OF FILING**

A one-paragraph summary is attached to this filing pursuant to Minn. R. 7829.1300, subp. 1.

## **II. SERVICE ON OTHER PARTIES**

Pursuant to Minn. R. 7829.1300, subp. 2, the Company has served a copy of this filing on the Office of the Attorney General – Antitrust and Utilities Division. A summary of the filing has been served on all parties on the enclosed service list.

## **III. GENERAL FILING INFORMATION**

Pursuant to Minn. R. 7829.1300, subp. 3, the Company provides the following information.

### **A. Name, Address, and Telephone Number of Utility**

Northern States Power Company, doing business as Xcel Energy  
414 Nicollet Mall  
Minneapolis, MN 55401  
(612) 330-5500

**B. Name, Address, and Telephone Number of Utility Attorney**

James Denniston  
Assistant General Counsel  
Xcel Energy  
414 Nicollet Mall, 401 - 8<sup>th</sup> Floor  
Minneapolis, MN 55401  
612-215-4656

**C. Date of Filing**

The date of this filing is December 14, 2018. The Company requests the Commission approve this Petition with an effective date of June 17, 2019 - the Commission approved effective date of the MN DIP and MN DIA.

**D. Statute Controlling Schedule for Processing the Filing**

Minn. Stat. § 216B.16 subd. 1 requires a 60-day notice to the Commission of a proposed tariff change. Under the Commission's rules, the proposed tariff change discussed in this Petition falls within the definition of a miscellaneous tariff filing under Minn. R. 7829.0100, subp. 11, since no determination of Xcel Energy's general revenue requirement is necessary.

**E. Utility Employee Responsible for Filing**

Holly Hinman  
Regulatory Manager  
Xcel Energy  
414 Nicollet Mall, 401 -7<sup>th</sup> Floor  
Minneapolis, MN 55401  
(612) 330-5941

**IV. MISCELLANEOUS INFORMATION**

Pursuant to Minn. R. 7829.0700, the Company requests that the following persons be placed on the Commission's official service list for this proceeding:

James Denniston  
Assistant General Counsel  
Xcel Energy  
414 Nicollet Mall, 401 - 8<sup>th</sup> floor  
Minneapolis, MN 55401  
[James.R.Denniston@xcelenergy.com](mailto:James.R.Denniston@xcelenergy.com)

Lynette Sweet  
Regulatory Administrator  
Xcel Energy  
414 Nicollet Mall, 401 – 7<sup>th</sup> Floor  
Minneapolis, MN 55401  
[regulatory.records@xcelenergy.com](mailto:regulatory.records@xcelenergy.com)

Any information requests in this proceeding should be submitted to the Regulatory Records email address above.

## V. DESCRIPTION AND PURPOSE OF FILING

### A. Background

Minn. Stat. §216B.1611 directs the Commission to initiate a proceeding to establish generic standards for utilities' tariffs that govern the interconnection and parallel operation of distributed generation with a capacity of up to ten megawatts (MW). On September 28, 2004, the Commission issued its *Order Establishing Standards*.

In May 2016, the Commission received two requests to update the interconnection standards it had established in 2004. Rather than establishing a rulemaking proceeding, the Commission set forth a procedural path to update the standards in two concurrent phases.<sup>2</sup> In Phase I, the Commission anticipated updating the interconnection process, application, data submittal, and agreement (replacing Attachments 1, 3, 4, and 5 to the September 2004 order. In Phase II, the Commission anticipated updating the technical requirements for interconnection (replacing Attachment 2). Between April and November 2017, the Distributed Generation Workgroup (DGWG), including representatives from Xcel Energy, convened five times to discuss Phase I updates to the statewide interconnection process and agreement before the Commission issued the draft versions of the MN DIP and MN DIA.

The Commission completed part of Phase I in its August 2018 Order. This order (Order Pt. 18) requires Xcel Energy to file updated tariffs by December 26, 2018. In addition, the Commission ordered (Order Pt. 19) Xcel Energy to convene a subgroup of the DGWG, including the Department of Commerce and other non-DGWG stakeholders, to inform our plan for transition to the new interconnection process.

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<sup>2</sup> See the Commission's Order, January 24, 2017.

The Company convened a stakeholder workgroup on October 26, 2018 to review draft tariff language addressing the changes to the interconnection process and standard interconnection agreement. The Company also gave informational presentations in the DGWG (November 9), MNSEIA’s Gateway to Solar Conference (November 13) and the Solar\*Rewards Community Implementation Working Group (November 14). We have incorporated stakeholder feedback in the updated tariffs and will continue our preparation efforts towards a transparent and smooth transition by engaging our stakeholders over the next several months.

On November 30, 2018, the MN DIP and MN DIA were submitted to the record by Commission staff. We have implemented these final draft documents as part of our proposed Section 10 Tariff revisions in this Petition.

**B. Purpose of Filing**

In this filing, the Company provides tariff changes pursuant to the August 2018 Order that adopted new statewide interconnection process and standards. This Petition also includes additional proposed tariff revisions for purposes of consistency. The tariff changes necessary to adhere to the interconnection standards are noted below by section and sheet number:

**Minnesota Electric Rate Book**

Section 1, Sheets 4-6	Section 7, Sheet TOC-1	Section 7, Sheets 75-86
Section 9, Sheet TOC	Section 9, Sheets 1-1.1	Section 9, Sheet 2
Section 9, Sheet 3.1	Section 9, Sheet 4.1	Section 9, Sheet 4.3
Section 9, Sheet 5	Section 9, Sheets 6-8.2	Section 9, Sheets 33-49.12
Section 9, Sheets 50-59.10	Section 9, Sheet 61	Section 9, Sheet 64
Section 9, Sheet 66.1	Section 9, Sheets 67-67.1	Section 9, Sheets 68-68.21
Section 9, Sheet 69.1	Section 9, Sheet 71	Section 9, Sheet 75-77
Section 9, Sheets 87-89	Section 10, Sheet TOC-1	Section 10, Sheets 73-74
Section 10, Sheets 78-80	Section10, Sheet 83	
Section 10, Sheets 163 –287		

We provide the redlined and clean tariff sheets as Attachment A to this filing. We also provide Attachment B to this filing as annotations that explain the various changes being proposed to the specific tariff sheets in this Petition.

### **C. Section 10 Interconnection Guidelines**

The Section 10 tariff changes include adding definitions for MN DIP, MN DIA, and MN Technical Requirements. The Section 10 tariff revisions keep the current interconnection process and interconnection agreement for pre-MN DIP applications, and specify that the MN DIP and MN DIA will apply to those applications that are submitted on or after June 17, 2019. The relatively few redlines in the attached Section 10 tariff (ahead of the additions of the MN DIP and MN DIA beginning on Sheet 163) are designed to accomplish this.

Our addition of the MN DIP and MN DIA to our Section 10 tariff includes certain changes to the November 30, 2018 MN DIP and MN DIA filed on the record. These specific changes are shown in Attachment C for the MN DIP, Attachment D for the MN DIA, and Attachment E for the Assignment form for the MN DIA. These edits largely include clean-up edits, specifying what rate applies, or putting Company specific information into the tariff. Where the MN DIP specifies a range of rates associated with submitting or processing an interconnection application, we have specified a rate in the tariff within the range allowed by the MN DIP. Processing some specific applications may cost less than the amount specified in our tariff, while others will cost significantly more. On balance, we believe that the rate in our tariff is appropriate.

Also, the final draft version of the MN DIP and MN DIA in the November notice included the Assignment of MN DIA form as an attachment to the MN DIA. The Company believes that this should be a stand-alone document available to interconnection customers but not physically attached to all MN DIAs that are signed. Accordingly, our proposed tariff takes this assignment form out of the MN DIA and places it immediately after the MN DIA in our tariff. In the course of putting these documents into our tariff, certain inherent formatting type and pagination changes were made that are not reflected in the attached redlines in Attachments C, D, and E.

### **D. Net Metering (Section 9, Sheets 1-12)**

Revisions to these tariff sheets include adding definitions for MN DIP, MN DIA and MN Technical Requirements, and relatively few other edits as explained in the annotations in Attachment B.

### **E. Solar\*Rewards (Section 9, Sheets 14-63)**

There are currently two tariffs for the Solar\*Rewards program. The first generation tariff (governing the program when solar photovoltaic (PV) incentives were paid

upfront) was closed to new applicants in 2014. It was replaced by our second generation program (governing the program following legislative changes requiring production-based incentives for solar PV installations). In order to implement the interconnection standards, the Company proposes a third generation tariff for projects that are subject to the MN DIP (applying on or after June 17, 2019).

The annotation document explains the changes to the third generation beginning with the second generation tariff language. The second generation tariff has many interconnection process and other interconnection requirements that will not apply to applications that are subject to the MN DIP. This accounts for most of the changes in our third generation tariff. One notable adjustment is to reflect that under the MN DIP, a Solar\*Rewards customer would now need to sign the Uniform Statewide Contract, and in some circumstances may also need to sign the MN DIA in addition to the Solar\*Rewards Standard Contract. This process differs from our current practice under the second generation program.

Notably, the third generation Solar\*Rewards tariff does not include recent approval by the Deputy Commissioner<sup>3</sup> to adjust the production incentives as part of the second generation program and beginning in 2019. These adjustments are addressed in the separate Solar\*Rewards Petition.

#### **F. Solar\*Rewards Community (Section 9, Sheets 64-99)**

Significant changes are required to conform the Solar\*Rewards Community (or CSG) tariff to implement the MN DIP. Some tariff provisions remain unchanged, some current provisions will only apply to those applications that are not subject to the MN DIP, and some new provisions will only apply to those applications that are subject to the MN DIP. Similar to the Solar\*Rewards tariff, the current version of the CSG tariff contains interconnection process and other interconnection requirements that will not apply to applications that are subject to the MN DIP. One example of a notable change includes the Independent Engineer review process which will not apply to applications that are subject to the MN DIP because this would conflict with the MN DIP. Also, for applications that are subject to the MN DIP, the 24-month deadline for Mechanical Completion is now triggered by the signing of the MN DIA instead of being triggered by becoming Expedited Ready. Other provisions in the current Solar\*Rewards Community tariff that will not apply to applications that are subject to the MN DIP include interconnection timelines, study requirements and capacity screens.

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<sup>3</sup> Deputy Commissioner's November 21, 2018 Decision in Docket No.E002/M-13-1015



## **G. Section 7 Tariff**

The Section 7 tariff includes a pre-MN DIP interconnection agreement that only applies to federal agencies. This will be closed to new applicants.

## **H. Implementation Details**

In order to implement the changes to the statewide interconnection process, the Company must upgrade its online application system. These changes are not intended to change the customer experience when applying to any of our interconnection programs; however, they will reconcile the online experience with the MN DIP. The upgrades will be deployed and tested prior to June 17, 2019. We will continue to work with stakeholders to ensure a smooth transition to the new interconnection process.

## **VI. EFFECT OF CHANGE UPON XCEL ENERGY REVENUE**

No significant revenue effect net of incremental costs is expected. To the extent that the tariff revisions allow Xcel Energy to assess certain new or different fees, these are expected to be off-set by associated costs.

### **CONCLUSION**

Xcel Energy respectfully requests that the Commission:

- Approve the proposed tariff changes necessary to implement the state's adoption of the updated interconnection standards; and,
- Consider in parallel with this Petition the Company's request filed contemporaneously in the Solar\*Rewards Community and Solar\*Rewards dockets.

The Company appreciates the opportunity to participate in the DGWG on an ongoing basis. We respectfully request approval of the conforming tariff changes proposed in this Petition.

Dated: December 14, 2018

Northern States Power Company

STATE OF MINNESOTA  
BEFORE THE  
MINNESOTA PUBLIC UTILITIES COMMISSION

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

IN THE MATTER OF THE PETITION OF  
NORTHERN STATES POWER COMPANY  
TARIFF REVISIONS TO IMPLEMENT THE  
UPDATED PROCESSES AND  
INTERCONNECTION AGREEMENT FOR  
DISTRIBUTED GENERATION

DOCKET No. E002/M-18-714

IN THE MATTER OF UPDATING THE  
GENERIC STANDARDS FOR THE  
INTERCONNECTION AND OPERATION OF  
DISTRIBUTED GENERATION FACILITIES  
ESTABLISHED UNDER MINN. STAT. §  
216B.1611

DOCKET No.E999/CI-16-521

**PETITION**

**SUMMARY OF FILING**

Please take notice that on December 14, 2018 Northern States Power Company, doing business as Xcel Energy, filed with the Minnesota Public Utilities Commission a Petition for approval of tariff revisions in redline and final format, as shown in Attachment A, in compliance with the Commission's August 13, 2018 *Order Establishing Updated Interconnection Process and Standard Interconnection Agreement*.

**Redline**

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~~16th~~17th Revised Sheet No. 4

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Date Filed: <del>11-02-15</del>	By: Christopher B. Clark	Effective Date: <del>10-01-17</del>
	President, Northern States Power Company, a Minnesota corporation	
Docket No. <del>E002/GR-15-826</del> <u>E002/M-18-714</u>		Order Date: <del>06-12-17</del>



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

**MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2**

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Date Filed: <del>03-11-16</del>	By: Christopher B. Clark	Effective Date: <del>07-21-17</del>
	President, Northern States Power Company, a Minnesota corporation	
Docket No. <del>E002/M-16-222</del> <u>E002/M-18-714</u>		Order Date: <del>05-22-17</del>

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Date Filed: ~~11-02-15~~

By: Christopher B. Clark

Effective Date: ~~10-01-17~~

President, Northern States Power Company, a Minnesota corporation

Docket No. ~~E002/GR-15-826~~E002/M-  
18-714

Order Date: ~~06-12-17~~

**MINNESOTA ELECTRIC RATE BOOK – MPUC NO. 2**

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**Interconnection Agreement**

**State of Minnesota**

**Interconnection Agreement For Use with Federal Agencies with Distributed Generation Under 2000 kW, where all electrical facilities behind the primary meter are not owned by Xcel Energy**

For the Interconnection of Extended Parallel Distributed Generation Systems with Electric Utilities

This Generating System Interconnection Agreement is entered into by and between Xcel Energy, and **(INSERT NAME OF APPLICABLE FEDERAL AGENCY)** (the "Interconnection Customer"). The Interconnection Customer and Xcel Energy are sometimes also referred to in this Agreement jointly as "Parties" or individually as "Party".

In consideration of the mutual promises and obligations stated in this Agreement and its attachments, the Parties agree as follows:

**I. SCOPE AND PURPOSE**

- A. Establishment of Point of Common Coupling. This Agreement is intended to provide for the Interconnection Customer to interconnect and operate a Generation System with a total Nameplate Capacity of 2000 kW or less in parallel with Xcel Energy at the location identified in Exhibit C and shown in the Exhibit A one-line diagram.
- B. This Agreement governs the facilities required to and contains the terms and condition under which the Interconnection Customer may interconnect the Generation System to Xcel Energy. This Agreement does not authorize the Interconnection Customer to export power or constitute an agreement to purchase or wheel the Interconnection Customer's power. Other services that the Interconnection Customer may require from Xcel Energy, or others, may be covered under separate agreements.
- C. To facilitate the operation of the Generation System, this agreement also allows for the occasional and inadvertent export of energy to Xcel Energy. The amount, metering, billing and accounting of such inadvertent energy exporting shall be governed by a separate Agreement. This Agreement does not constitute an agreement by Xcel Energy to purchase or pay for any energy, inadvertently or intentionally exported, unless expressly noted in a separately executed power purchase agreement (PPA).
- D. This agreement does not constitute a request for, nor the provision of any transmission delivery service or any local distribution delivery service.
- E. The Technical Requirements for interconnection are covered in a separate Technical Requirements document know as, the "State of Minnesota Distributed Generation Interconnection Requirements", a copy of which as been made available to the Interconnection Customer and incorporated and made part of this Agreement by this reference.

(Continued on Sheet No. 7-76)

Date Filed: ~~03-08-11~~ By: ~~Judy M. Pefor~~ Christopher B. Clark Effective Date: ~~08-08-11~~  
President, ~~and CEO~~ of Northern States Power Company, a Minnesota corporation  
Docket No. ~~E002/M-11-~~ Order Date: ~~08-08-11~~  
487E002/M-18-714

**INTERCONNECTION AGREEMENT – FEDERAL AGENCY  
DISTRIBUTED GENERATION UNDER 2000 kW  
(CLOSED TO NEW APPLICANTS) (Continued)**

Section No. 7  
~~Original-1st Revised~~ Sheet No. 76

**II. DEFINITIONS**

- A. "Area EPS" is an electric power system (EPS) that serves Local EPS's. For the purpose of this agreement, the Xcel Energy system is the Area EPS. Note: Typically, Xcel Energy has primary access to public rights-of-way, priority crossing of property boundaries, etc.
- B. "Area EPS Operator" is the entity that operates the electric power system. For purpose of this agreement, Xcel Energy is the Are EPS Operator.
- C. "Dedicated Facilities" is the equipment that is installed due to the interconnection of the Generation System and not required to serve other Xcel Energy customers.
- D. "EPS" (Electric Power System) are facilities that deliver electric power to a load. Note: This may include generation units.
- E. "Extended Parallel" means the Generation System is designed to remain connected with Xcel Energy for an extended period of time.
- F. "Generation" is any device producing electrical energy, i.e., rotating generators driven by wind, steam turbines, internal combustion engines, hydraulic turbines, solar, fuel cells, etc.; or any other electric producing device, including energy storage technologies.
- G. "Generation Interconnection Coordinator" is the person or persons designated by Xcel Energy to provide a single point of coordination with the Applicant for the generation interconnection process.
- H. "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.
- I. "Interconnection Customer" is the party or parties who will own/operate the Generation System and are responsible for meeting the requirements of the agreements and Technical Requirements. This could be the Generation System applicant, installer, owner, designer, or operator.
- J. "Local EPS" is an electric power system (EPS) contained entirely within a single premises or group of premises.
- K. "Nameplate Capacity" is the total nameplate capacity rating of all the Generation included in the Generation System. For this definition the "standby" and/or maximum rated kW capacity on the nameplate shall be used.
- L. "Point of Common Coupling" is the point where the Local EPS is connected to Xcel Energy

(Continued on Sheet No. 7-77)

Date Filed:	<del>03-08-11</del>	By: <del>Judy M. Poyer</del> <u>Christopher B. Clark</u>	Effective Date:	<del>08-08-11</del>
		President, <del>and CEO of</del> Northern States Power Company, a Minnesota corporation		
Docket No.	<del>E002/M-11-</del> <u>487E002/M-18-714</u>		Order Date:	<del>08-08-11</del>

**INTERCONNECTION AGREEMENT – FEDERAL AGENCY  
DISTRIBUTED GENERATION UNDER 2000 kW  
(CLOSED TO NEW APPLICANTS) (Continued)**

Section No. 7  
~~Original-1st Revised~~ Sheet No. 77

**II. DEFINITIONS (Continued)**

- M. "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
- N. "Technical Requirements" are the State of Minnesota Requirements for Interconnection of Distributed Generation

**III. DESCRIPTION OF INTERCONNECTION CUSTOMER'S GENERATION SYSTEM**

- A) A description of the Generation System, including a single-line diagram showing the general arrangement of how the Interconnection Customer's Generation System is interconnected with Xcel Energy's distribution system, is attached to and made part of this Agreement as Exhibit A. The single-line diagram shows the following:
  - 1) Point of Delivery (if applicable)
  - 2) Point of Common Coupling
  - 3) Location of Meter(s)
  - 4) Ownership of the equipment
  - 5) Generation System total Nameplate Capacity: \_\_\_\_ kW **(insert amount, must be less than 2000 kW under this Agreement)**
  - 6) Scheduled operational (on-line) date for the Generation System.

**IV. RESPONSIBILITIES OF THE PARTIES**

- A) The Parties shall perform all obligations of this Agreement in accordance with all applicable laws and regulations, operating requirements and good utility practices.
- B) Interconnection Customer shall construct, operate and maintain the Generation System in accordance with the applicable manufacture's recommended maintenance schedule, the Technical Requirements and in accordance with this Agreement.

(Continued on Sheet No. 7-78)

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**INTERCONNECTION AGREEMENT – FEDERAL AGENCY  
DISTRIBUTED GENERATION UNDER 2000 kW  
(CLOSED TO NEW APPLICANTS) (Continued)**

Section No. 7  
~~Original-1st Revised~~ Sheet No. 78

**V. CONSTRUCTION**

The Parties agree to cause their facilities or systems to be constructed in accordance with the laws of the State of Minnesota and to meet or exceed applicable codes and standards provided by the NESC (National Electrical Safety Code), ANSI (American National Standards Institute), IEEE (Institute of Electrical and Electronic Engineers), NEC (National Electrical Code), UL (Underwriter's Laboratory), Technical Requirements and local building codes and other applicable ordinances in effect at the time of the installation of the Generation System.

**VI. DOCUMENTS INCLUDED WITH THIS AGREEMENT**

- A) This agreement includes the following exhibits, which are specifically incorporated herein and made part of this Agreement by this reference: *(if any of these Exhibits are deemed not applicable for this Generation System installation, they may be omitted from the final Agreement by Xcel Energy.)*
- 1) Exhibit A – Description of Generation System and single-line diagram. This diagram shows all major equipment, 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. Exhibit B has been intentionally omitted.
  - 2) Exhibit C – Engineering Data Submittal – A standard form that provides the engineering and operating information about the Generation System.

**VII. TERMS AND TERMINATION**

- A) This Agreement shall become effective as of the date when both the Interconnection Customer and Xcel Energy have both signed this Agreement. The Agreement shall continue in full force and effect until the earliest date that one of the following events occurs:
- 1) The Parties agree in writing to terminate the Agreement; or
  - 2) The Interconnection Customer may terminate this agreement at any time, by written notice to Xcel Energy, prior to the completion of the final acceptance testing of the Generation System by Xcel Energy. Once the Generation System is operational, then VII.A.3 applies. Upon receipt of a cancellation notice, Xcel Energy shall take reasonable steps to minimize additional costs to the Interconnection Customer, where reasonably possible; or

(Continued on Sheet No. 7-79)

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**INTERCONNECTION AGREEMENT – FEDERAL AGENCY  
DISTRIBUTED GENERATION UNDER 2000 kW  
(CLOSED TO NEW APPLICANTS) (Continued)**

Section No. 7  
~~Original-1st Revised~~ Sheet No. 79

**VII. TERMS AND TERMINATION (Continued)**

- 3) Once the Generation System is operational, the Interconnection Customer may terminate this agreement after 30 days written notice to Xcel Energy, or
- 4) Xcel Energy may terminate this agreement after 30 days written notice to the Interconnection Customer if:
  - a) The Interconnection Customer fails to interconnect and operate the Generation System per the terms of this Agreement; or
  - b) The Interconnection Customer fails to take all corrective actions specified in Xcel Energy's written notice that the Generation System is out of compliance with the terms of this Agreement, within the time frame set forth in such notice, or
  - c) If the Interconnection Customer fails to complete Xcel Energy's final acceptance testing of the generation system within 24 months of the date proposed under section VII.A.
- B) Upon termination of this Agreement the Generation System shall be disconnected from Xcel Energy. The termination of this Agreement shall not relieve either Party of its liabilities and obligations, owed or continuing, at the time of the termination.

**VIII. OPERATIONAL ISSUES**

Each Party will, at its own cost and expense, operate, maintain, repair and inspect, and shall be fully responsible for, the facilities that it now or hereafter may own, unless otherwise specified.

- A) Technical Standards: The Generation System shall be installed and operated by the Interconnection Customer consistent with the requirements of this Agreement; the Technical Requirements; the applicable requirements located in the National Electrical Code (NEC); the applicable standards published by the American National Standards Institute (ANSI) and the Institute of Electrical and Electronic Engineers (IEEE); and local building and other applicable ordinances in effect at the time of the installation of the Generation System.
- B) Right of Access: At all times, Xcel Energy's personnel shall have access to the disconnect switch of the Generation System for any reasonable purpose in connection with the performance of the obligations imposed on it by this Agreement, to meet its obligation to operate the electric power system safely and to provide service to its customers. If necessary for the purposes of this Agreement, the Interconnection Customer shall allow Xcel Energy access to Xcel Energy's equipment and facilities located on the premises.

(Continued on Sheet No. 7-80)

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**INTERCONNECTION AGREEMENT – FEDERAL AGENCY  
DISTRIBUTED GENERATION UNDER 2000 kW  
(CLOSED TO NEW APPLICANTS) (Continued)**

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**VIII. OPERATIONAL ISSUES (Continued)**

- C) Electric Service Supplied: will supply the electrical requirements of the Local EPS that are not supplied by the Generation System. Such electric service shall be supplied, to the Interconnection Customer's Local EPS, under the rate schedules applicable to the Customer's class of service as revised from time to time by Xcel Energy.
  
- D) Operation and Maintenance: Not applicable.
  
- E) Cooperation and Coordination: Both Xcel Energy and the Interconnection Customer shall communicate and coordinate their operations, so that the normal operation of the electric power system does not unduly effect or interfere with the normal operation of the Generation System and the Generation System does not unduly effect or interfere with the normal operation of the electric power system. Under abnormal operations of either the Generation System or the Xcel Energy system, the responsible Party shall provide reasonably timely communication to the other Party to allow mitigation of any potentially negative effects of the abnormal operation of their system.
  
- F) Disconnection of Unit: Xcel Energy may disconnect the Generation System as reasonably necessary, for termination of this Agreement; non-compliance with this Agreement; system emergency, imminent danger to the public or Xcel Energy personnel; routine maintenance, repairs and modifications to the electric power system. When reasonably possible, Xcel Energy shall provide prior notice to the Interconnection Customer explaining the reason for the disconnection. If prior notice is not reasonably possible, Xcel Energy shall after the fact, provide information to the Interconnection Customer as to why the disconnection was required. It is agreed that Xcel Energy shall have no liability for any loss of sales or other damages, including all consequential damages for the loss of business opportunity, profits or other losses, regardless of whether such damages were foreseeable, for the disconnection of the Generation System per this Agreement. Xcel Energy shall expend reasonable effort to reconnect the Generation System in a timely manner and to work towards mitigating damages and losses to the Interconnection Customer where reasonably possible.

(Continued on Sheet No. 7-81)

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**INTERCONNECTION AGREEMENT – FEDERAL AGENCY  
DISTRIBUTED GENERATION UNDER 2000 kW  
(CLOSED TO NEW APPLICANTS) (Continued)**

Section No. 7  
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**VIII. OPERATIONAL ISSUES (Continued)**

- G) Modifications to the Generation System: When reasonably possible the Interconnection Customer shall notify Xcel Energy, in writing, of plans for any modifications to the Generation System interconnection equipment, including all information needed by Xcel Energy as part of the review described in this paragraph, at least twenty (20) business days prior to undertaking such modification(s). Modifications to any of the interconnection equipment, including, all interconnection required protective systems, the generation control systems, the transfer switches/breakers, interconnection protection VT's & CT's, and Generation System capacity, shall be included in the notification to Xcel Energy. When reasonably possible the Interconnection Customer agrees not to commence installation of any modifications to the Generating System until Xcel Energy has approved the modification, in writing, which approval shall not be unreasonably withheld. Xcel Energy shall have a minimum of five (5) business days to review and respond to the planned modification. Xcel Energy shall not take longer than a maximum of ten (10) business days, to review and respond to the modification after the receipt of the information required to review the modifications. When it is not reasonably possible for the Interconnection Customer to provide prior written notice, the Interconnection Customer shall provide written notice to Xcel Energy as soon as reasonably possible, after the completion of the modification(s).
- H) Permits and Approvals: The Interconnection Customer shall obtain all environmental and other permits lawfully required by governmental authorities prior to the construction of the Generation System. The Interconnection Customer shall also maintain these applicable permits and compliance with these permits during the term of this Agreement.

**IX. LIMITATION OF LIABILITY**

- A) Each Party's liability to the other Party for failure to perform its obligations under this Agreement, 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.
- B) Notwithstanding any other provision in this Agreement, with respect to Xcel Energy's provision of electric service to any customer including the Interconnection Customer, the Xcel Energy's liability to such customer shall be limited as set forth in Xcel Energy's tariffs and terms and conditions for electric service, and shall not be affected by the terms of this Agreement.

(Continued on Sheet No. 7-82)

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**INTERCONNECTION AGREEMENT – FEDERAL AGENCY  
DISTRIBUTED GENERATION UNDER 2000 kW  
(CLOSED TO NEW APPLICANTS) (Continued)**

Section No. 7  
~~Original~~1st Revised Sheet No. 82

**X. 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 Agreement, and if it cannot be resolved by the Parties within thirty (30) days after written notice of the dispute to the other Party, the Parties agree to submit the dispute to mediation by a mutually acceptable mediator, in a mutually convenient location in the State of Minnesota. The Parties agree to participate in good faith in the mediation for a period of 90 days. If the parties are not successful in resolving their disputes through mediation, then the Parties may refer the dispute for resolution to the Minnesota Public Utilities Commission (MPUC), which shall maintain continuing jurisdiction over this Agreement.

**XI. INSURANCE**

- A) In connection with the Interconnection Customer's performance of its duties and obligations under this Agreement, the Interconnection Customer agrees that during the term of the Agreement it shall self-insure, subject to and in accordance with the Federal Tort Claims Act, 28 U.S.C 1346(b) and 2671-2680, the Antideficiency Act, 31 U.S.C. 1341, 1342, 1349, 1350, and 1351, and the Automatic Payment of Judgments Act, 31 U.S.C. 1304 (collectively "Federal Statutes") to cover (with a combined single limit of not more than two million dollars (\$2,000,000) for each occurrence) against claims resulting from bodily injury, wrongful death, and property damage arising out of the Interconnection Customer's ownership and/or operations of the Generation System under this Agreement. Subject to and in accordance with the Federal Statutes, Interconnection Customer's self-insurance shall include Xcel Energy as an additional insured and shall be primary and not excess to or contributing with any insurance or self-insurance maintained by Xcel Energy.
- B) Evidence of the insurance required in Section XI.A. shall state that coverage provided is primary and is not excess to or contributing with any insurance or self-insurance maintained by Xcel Energy.
- C) Failure of the Interconnection Customer or Xcel Energy to enforce the minimum levels of insurance does not relieve the Interconnection Customer from maintaining such levels of insurance or relieve the Interconnection Customer of any liability.
- D) All insurance certificates, statements of self-insurance, endorsements, cancellations, terminations, alterations, and material changes of such insurance shall be issued and submitted to the Generation Interconnection Coordinator assigned.

(Continued on Sheet No. 7-82)

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**INTERCONNECTION AGREEMENT – FEDERAL AGENCY  
DISTRIBUTED GENERATION UNDER 2000 kW  
(CLOSED TO NEW APPLICANTS) (Continued)**

Section No. 7  
~~Original~~1st Revised Sheet No. 83

**XII. MISCELLANEOUS**

**A) FORCE MAJEURE**

- 1) An event of Force Majeure means any act of God, act of the public enemy, war, insurrection, riot, fire, storm or flood, explosion, breakage or accident to machinery or equipment, any curtailment, order, regulation or restriction imposed by governmental, military or lawfully established civilian authorities, or any other cause beyond a Party's control. An event of Force Majeure does not include an act of negligence or intentional wrongdoing.
- 2) Neither Party will be considered in default of any obligation hereunder if such Party is prevented from fulfilling the obligation due to an event of Force Majeure. However, a Party whose performance under this Agreement is hindered by an event of Force Majeure shall make all reasonable efforts to perform its obligations hereunder.

**B) NOTICES**

- 1) Any written notice, demand, or request required or authorized in connection with this Agreement ("Notice") shall be deemed properly given if delivered in person or sent by first class mail, postage prepaid, to the person specified below:
  - a) Xcel Energy – ATTN: **(insert contact name, position and address)**
  - b) If to Interconnection Customer:  
  
**(insert contact name, position and address)**
- 2) A Party may change its address for notices at any time by providing the other Party written notice of the change, in accordance with this Section.
- 3) The Parties may also designate operating representatives to conduct the daily communications, which may be necessary or convenient for the administration of this Agreement. Such designations, including names, addresses, and phone numbers may be communicated or revised by one Party's notice to the other Party.

**C) ASSIGNMENT**

The Interconnection Customer shall not assign its rights nor delegate its duties under this Agreement without Xcel Energy's written consent. Any assignment or delegation the Interconnection Customer makes without Xcel Energy's written consent shall not be valid. Xcel Energy shall not unreasonably withhold its consent to the Generating Entities assignment of this Agreement.

(Continued on Sheet No. 7-84)

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**INTERCONNECTION AGREEMENT – FEDERAL AGENCY  
DISTRIBUTED GENERATION UNDER 2000 kW  
(CLOSED TO NEW APPLICANTS) (Continued)**

Section No. 7  
~~Original~~1st Revised Sheet No. 84

**XII. MISCELLANEOUS (Continued)**

**D) NON-WAIVER**

None of the provisions of this Agreement shall be considered waived by a Party unless such waiver is given in writing. The failure of a Party to insist in any one or more instances upon strict performance of any of the provisions of this Agreement or to take advantage of any of its rights hereunder shall not be construed as a waiver of any such provisions or the relinquishment of any such rights for the future, but the same shall continue and remain in full force and effect.

**E) GOVERNING LAW AND INCLUSION OF XCEL ENERGY'S TARIFFS AND RULES.**

- 1) The laws of the United States of America and, to the extent that there is no applicable or controlling federal law, the laws of the State of Minnesota, shall govern the interpretation, construction, and validity of this Agreement, regardless of any principles of choice of law or conflicts of law.
- 2) The interconnection and services provided under this Agreement shall at all times be subject to the terms and conditions set forth in the tariff schedules and rules applicable to the electric service provided by Xcel Energy, which tariff schedules and rules are hereby incorporated into this Agreement by this reference.
- 3) Notwithstanding any other provisions of this Agreement, Xcel Energy shall have the right to unilaterally file with the MPUC, pursuant to the MPUC's rules and regulations, an application for change in rates, charges, classification, service, tariff or rule or any agreement relating thereto.

**F) AMENDMENT AND MODIFICATION**

This Agreement can only be amended or modified by a writing signed by both Parties.

**G) ENTIRE AGREEMENT**

This Agreement, including all attachments, exhibits, and appendices, constitutes the entire Agreement between the Parties with regard to the interconnection of the Generation System of the Parties at the Point(s) of Common Coupling expressly provided for in this Agreement and supersedes all prior agreements, or understandings, whether verbal or written. It is expressly acknowledged that the Parties may have other agreements covering other services not expressly provided for herein, which agreements are unaffected by this Agreement. Each party also represents that in entering into this Agreement, it has not relied on the promise, inducement, representation, warranty, agreement or other statement not set forth in this Agreement or in the incorporated attachments, exhibits and appendices.

(Continued on Sheet No. 7-85)

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**INTERCONNECTION AGREEMENT – FEDERAL AGENCY  
DISTRIBUTED GENERATION UNDER 2000 kW  
(CLOSED TO NEW APPLICANTS) (Continued)**

Section No. 7  
~~Original~~1st Revised Sheet No. 85

**XII. MISCELLANEOUS (Continued)**

**H) CONFIDENTIAL INFORMATION**

Except as otherwise agreed or provided herein, each Party shall hold in confidence and shall not disclose confidential information, to any person (except employees, officers, representatives and agents, who agree to be bound by this section). Confidential information shall be clearly marked as such on each page or otherwise affirmatively identified. If a court, government agency or entity with the right, power, and authority to do so, requests or requires either Party, by subpoena, oral disposition, interrogatories, requests for production of documents, administrative order, or otherwise, to disclose Confidential Information, that Party shall provide the other Party with prompt notice of such request(s) or requirements(s) so that the other Party may seek an appropriate protective order or waive compliance with the terms of this Agreement. In the absence of a protective order or waiver the Party shall disclose such confidential information which, in the opinion of its counsel, the party is legally compelled to disclose. Each Party will use reasonable efforts to obtain reliable assurance that confidential treatment will be accorded any confidential information so furnished.

**I) NON-WARRANTY**

Neither by inspection, if any, or non-rejection, nor in any other way, does Xcel Energy give any warranty, expressed or implied, as to the adequacy, safety, or other characteristics of any structures, equipment, wires, appliances or devices owned, installed or maintained by the Interconnection Customer or leased by the Interconnection Customer from third parties, including without limitation the Generation System and any structures, equipment, wires, appliances or devices appurtenant thereto.

**J) NO PARTNERSHIP**

This Agreement shall not be interpreted or construed to create an association, joint venture, agency relationship, or partnership between the Parties or to impose any partnership obligation or partnership liability upon either Party. Neither Party shall have any right, power or authority to enter into any agreement or undertaking for, or act on behalf of, or to act as or be an agent or representative of, or to otherwise bind, the other Party.

(Continued on Sheet No. 7-86)

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**INTERCONNECTION AGREEMENT – FEDERAL AGENCY  
DISTRIBUTED GENERATION UNDER 2000 kW  
(CLOSED TO NEW APPLICANTS) (Continued)**

Section No. 7  
~~Original~~1st Revised Sheet No. 86

**XIII. SIGNATURES**

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

Interconnection Customer

By: \_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

Xcel Energy

By: \_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

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**COGENERATION  
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**TECHNICAL AND SPECIAL TERMS FOR  
COGENERATION AND SMALL POWER PRODUCTION**

Section No. 9  
~~1st~~2nd Revised Sheet No. 1

**CAPACITY.** The capability to produce, transmit, or deliver electric energy, which is measured by the number of megawatts alternating current at the point of common coupling between a QF or NMF and a utility's electric system.

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

**GENERATION SYSTEM.** For an interconnection not subject to the MN DIP, the 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. For an interconnection subject to the MN DIP, this term shall mean Distributed Energy Resources as defined in the MN DIP.

**INDIVIDUAL SYSTEM CAPACITY LIMITS.**

1. Customers with a facility of 40-kilowatt AC capacity or more and participating in net metering and net billing may be required to limit the total generation capacity of individual distributed generation systems by either:
  - a. for wind generation systems, limiting the total generation system capacity kilowatt alternating current to 120 percent of the customer's on-site maximum electric demand; or
  - b. for solar photovoltaic and other distributed generation, limiting the total generation system annual energy production kilowatt hours alternating current to 120 percent of the customer's on-site annual electric energy consumption.
2. Limits under paragraph 1.(a) applicable to measuring on-site maximum electric demand must be based on standard 15-minute intervals, measured during the previous 12 calendar months. If a facility subject to the demand limits under paragraph 1.(a) has either less than 12 calendar months of actual electric usage or has no demand metering available, then the means of estimating annual demand or usage for purposes of applying these limits will be based on looking at information for similarly situated customers.
3. The total generation capacity of individual distributed generation systems is determined by the total capacity of all of the customer's systems which are on the same set of aggregated meters. On-site maximum electric demand and on-site annual electric energy consumption are determined by total demand or electric energy consumption associated with the same set of aggregated meters.
4. For wind generation systems, the Company will estimate customer demand use for purposes of calculating the 120 percent rule by determining a demand-billed customer's highest billed on-site kW demand in all bills issued during the most recent calendar year. For non-demand customers, the Company shall impute the equivalent peak demand level by first determining the customer's most recent on-site annual (12-month) billed kWh sales. Those kWh sales shall be divided by the product of an assumed 30% annual load factor and the number of actual hours in that year (either 8,760 hours in a standard year or 8,784 hours in a leap year). The resulting quotient will serve as the customer's estimated on site maximum electric demand.
5. For solar photovoltaic and other distributed generation systems, where 12 months of usage data is not available, the Company will estimate customer energy use for purposes of calculating the 120 percent rule by averaging four months of usage. If four months of usage is not available, the Company will apply the limits under paragraph 1.(a) based on looking at information for similarly situated customers.

(Continued on Sheet No. 9-1.1)

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**TECHNICAL AND SPECIAL TERMS FOR  
COGENERATION AND SMALL POWER PRODUCTION  
(Continued)**

Section No. 9  
Original-1st Revised Sheet No. 1.1

INTERCONNECTION COSTS. The reasonable costs of connection, switching, metering, transmission, distribution, safety provisions, and administrative costs incurred by the Company that are directly related to installing and maintaining the physical facilities necessary to permit interconnected operations with a qualifying facility. Costs are considered interconnection costs only to the extent that they exceed the corresponding costs which the Company would have incurred if it had not engaged in interconnected operations, but instead generated from its own facilities or purchased from other sources an equivalent amount of electric energy or capacity. Costs are considered interconnection costs only to the extent that they exceed the costs the utility would incur in selling electricity to the qualifying facility as a nongenerating customer.

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

MN DIA. The Minnesota Distributed Energy Resource Interconnection Agreement. See, Docket No. E999/CI-16-521.

MN DIP. The Minnesota Distributed Energy Resource Interconnection Process. See, Docket No. E999/CI-16-521. The MN DIA shall be considered to be part of the MN DIP.

MN TECHNICAL REQUIREMENTS (OR MINNESOTA TECHNICAL REQUIREMENTS). These are as defined in the MN DIP, Attachment 1, Glossary of Terms, and also include all requirements in the Operating Agreement attached to the MN DIA.

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 or NMF in excess of the facilities and expenses recovered in the monthly metering charge.

NET METERED FACILITY (NMF). An electric generation facility constructed for the purpose of offsetting energy use through the use of renewable energy or high-efficiency distributed generation sources.

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.

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.

QUALIFYING FACILITY (QF). A qualifying facility is a cogeneration or small power production facility which satisfies the conditions in 18 Code of Federal Regulations Part 292.

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

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**TECHNICAL AND SPECIAL TERMS FOR  
COGENERATION AND SMALL POWER PRODUCTION  
(Continued)**

Section No. 9  
~~Original-1st Revised~~ Sheet No. 1.1

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

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Docket No. ~~E002/M-16-222~~E002/M-  
18-714

Order Date: ~~05-22-17~~



**MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2**

**EXCESS GENERATION-AVERAGE RETAIL UTILITY ENERGY  
 SERVICE  
 RATE CODE A50**

Section No. 9  
~~24th~~25th Revised Sheet No. 2

**AVAILABILITY**

This service corresponds to Minn. R. 7835.4012 and Minn. R. 7835.4013 (Average Retail Energy Rate) and to Paragraph 3.a of the Uniform Statewide Contract for Cogeneration and Small Power Production. Available to any qualifying facility (QF) of less than 40 kW AC capacity who receives non-time of day retail electric service from Company and offsets energy delivered by Company. The A50 Rate Code applies to the extent the energy delivered by the customer exceeds that supplied by the Company during the monthly billing period, and the rates below are for that net excess generation.

<b>RATE</b>	Production Meter	No Production
Metering Charge per Month	Installed	Meter Installed
Single Phase	\$3.15	\$1.68
Three Phase	\$6.40	\$2.58
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	\$0.11855	\$0.12472
With Retail Demand Metered Service	\$0.06729	\$0.06981

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**TERMS AND CONDITIONS OF SERVICE**

1. Energy used by customer in excess of energy delivered by the QF at the same site during the same billing period shall be billed in accordance with the appropriate non-time of day retail electric rate.
2. 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.
3. 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.
4. The voltage and phase of customer's generator must be consistent with existing service and approved by the Company.
5. The customer must ~~comply with the MN Technical Requirements maintain a power factor as close to unity as possible or as specified in the "Power Factor" provision of the "Distributed Generation Interconnection Requirements" section of the Section 10 tariff.~~

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<u>9E002/M-18-714</u>		

**MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2**

**SALE TO COMPANY AFTER CUSTOMER SELF-USE**  
**RATE CODE A51, A52 (Continued)**

Section No. 9

Original-1st Revised Sheet No. 3.1

**TERMS AND CONDITIONS OF SERVICE**

1. Electric service provided by Company to customer at the same site shall be billed in accordance with the retail rate applicable to the customer.
2. 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 customer. The net interconnection charge is the responsibility of the customer.
3. The voltage and phase of customer's generator must be consistent with existing service and approved by the Company.
4. The customer must comply with the MN Technical Requirements, maintain a power factor as close to unity as possible or as specified in the "Power Factor" provision of the "Distributed Generation Interconnection Requirements" section of the Section 10 tariff.
5. Individual System Capacity Limits apply.

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**MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2**

**MONTHLY NET METERING**

Section No. 9

**RATE CODE A53, A54 (Continued)**

Original-1st Revised Sheet No. 4.1

**TERMS AND CONDITIONS OF SERVICE**

1. Electric service provided by Company to customer in excess of energy delivered by the QF at the same site during the same billing period shall be billed in accordance with the retail rate applicable to customer.
2. 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.
3. 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 customer. The net interconnection charge is the responsibility of the customer.
4. The voltage and phase of customer's generator must be consistent with existing service and approved by the Company.
5. The customer must comply with the MN Technical Requirements. maintain a power factor as close to unity as possible or as specified in the "Power Factor" provision of the "Distributed Generation Interconnection Requirements" section of the Section 10 tariff.
6. Individual System Capacity Limits apply.

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**MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2**

**ANNUAL NET METERING (KWH BANKING OPTION)  
RATE CODE A55, A56 (Continued)**

Section No. 9

~~Original~~1st Revised Sheet No. 4.3

**TERMS AND CONDITIONS OF SERVICE**

1. Electric service provided by Company to customer in excess of energy delivered by the QF or NMF including the depletion of any banked excess generation at the same site shall be billed in accordance with the retail rate applicable to customer.
2. 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.
3. 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 customer. The net interconnection charge is the responsibility of the customer.
4. The voltage and phase of customer's generator must be consistent with existing service and approved by the Company.
5. The customer must comply with the MN Technical Requirements, maintain a power factor as close to unity as possible or as specified in the "Power Factor" provision of the "Distributed Generation Interconnection Requirements" section of the Section 10 tariff.
6. Individual System Capacity Limits apply.
7. The Company will credit customers electing to "bank" annually via an on-bill credit for that customer's account posted on the bill following the billing cycle that includes December 31 and reflects payment for the bank balance for kWh credits accumulated up through the closing date on that bill which includes December 31. The effect of netting customer generation against customer use occurs on a roughly annual basis, but for administrative purposes may be a few days off from a calendar year. The bank balance increases or decreases monthly, but at end of any given monthly billing cycle never goes below zero.
8. To choose Annual Net Metering, the customer should select Paragraphs 5.a. in the Uniform Statewide Contract for Cogeneration and Small Power Production, in addition to either Paragraph 5.b. or 5.c of that contract.

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**RULES AND REGULATIONS APPLICABLE TO  
COGENERATION AND SMALL POWER PRODUCTION  
FACILITIES**

Section No. 9  
~~2nd~~3rd Revised Sheet No. 5

**APPLICATION OF THE MN DIP**

To the extent that an application or interconnection is subject to the MN DIP, and there is any inconsistency between the provisions of this Section 9 and the MN DIP as set forth in the Section 10 tariff or the MN Technical Requirements, the provisions of the MN DIP and MN Technical Requirements shall control over the provisions of this Section 9 tariff.

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**FACILITY LOCATION AND COMPLIANCE**

Customer agrees to locate the qualifying facility (QF) or Net Metered Facility (NMF) 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 or NMF 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 or NMF does not preclude the necessity of customer obtaining all required permits, building and zoning variations, and applicable inspections.

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**TECHNICAL INTERCONNECTION REQUIREMENTS**

~~The MN Technical Requirements apply. Customer's QF or NMF 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. Before a customer signs the Uniform Statewide Contract, the Company must distribute to that customer a copy of, or electronic link to, the then-current MN Technical Requirements, commission's order establishing interconnection standards dated September 28, 2004, in docket number E-999/CI-01-1023, or to currently effective interconnection standards established by subsequent commission order such as the Company's Section 10 tariff. A signed Interconnection Agreement under the Section 10 tariff is required for all new interconnections. However, a customer may seek from the Company an exemption from having a signed Section 10 Interconnection Agreement where all of these characteristics have been met:~~

- ~~-The Generation System is a certified equipment package;~~
- ~~-The Generation System has less than a 250 kW AC nameplate capacity;~~
- ~~-No Company medium voltage system modifications are required to accommodate the interconnection; and,~~
- ~~-The customer has signed the Section 9 Uniform Statewide Contract for the Generation System.~~

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**CONNECTION AND SAFETY DISCONNECT SWITCH**

Company agrees to permit customer to connect the proposed QF or NMF 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

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(Continued on Sheet No. 9-5.1)

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**RULES AND REGULATIONS APPLICABLE TO  
COGENERATION AND SMALL POWER PRODUCTION  
FACILITIES**

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Section No. 9  
~~2nd~~3rd Revised Sheet No. 5

and operating reasons. QFs or NMFs using line commutated synchronous inverters shall have the inverters connected on the load side (QF or NMF side) of the safety disconnect switch.

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(Continued on Sheet No. 9-5.1)

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

Section No. 9  
~~1st~~<sup>2nd</sup> Revised 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 QF or NMF will require QF or NMF to pay a net interconnection charge in advance.

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**METERING REQUIREMENTS**

The QF or NMF shall make provision for on-site metering. On-site use of QF or NMF output shall be unmetered for purposes of compensation. QF or NMF shall cooperate with and allow Company to install and have access to on-site monitoring equipment for purposes of gathering QF or NMF performance data. A Company-owned bi-directional meter is required to be installed at each service location associated with each new Customer generation source subject to this tariff. A production meter may be required, in addition to the bi-directional meter, in certain circumstances. A production meter is not required for systems rated under 40 kW AC, unless that system is subject to an incentive or program rule requiring a production meter (e.g., Solar\*Rewards). A production meter is required for all systems rated 40 kW AC or above. Customer will provide all meter housing and socket replacement and rewiring to install the metering.

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**BI-DIRECTIONAL METER**

A bi-directional meter located at the main service will record energy delivered to the customer from the Company, and energy received by the Company from customer. Installation of a new bi-directional meter may not be required if the configuration of a customer's facilities allows and a previously installed bi-directional meter provides the information necessary for billing purposes.

**PRODUCTION METER**

The second (Production) meter will record energy generated by the QF or NMF 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 QF or NMF system when a production meter is required. At customer's request, additional production meters, beyond Company-required production meters, may be installed if approved by the Company at the Customer's expense.

**METERING CHARGES**

Customer shall be charged a metering charge per month (see Rate Codes A50-A56). Payment for Any additional facilities required by Company to accommodate the QF or NMF system will be consistent with the MN DIP, and where applicable, the MN DIA. require customer to pay a Net Interconnection Charge in advance, unless if customer signs a Section 10 interconnection agreement in which case that interconnection agreement will govern terms of payment.

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(Continued on Sheet No. 9-8.1)

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

Section No. 9  
~~Original~~1st Revised Sheet No. 8.2

**OWNERSHIP OF RENEWABLE ENERGY CREDITS**

Generators own all renewable energy credits unless:

- A. other ownership is expressly provided for by a contract between a generator and a utility;
- B. state law specifies a different outcome; or
- C. specific Commission orders or rules specify a different outcome.

**DISTRIBUTED GENERATION PPAs WHERE RATE CODES A51-A56 DO NOT APPLY**

If a qualifying facility (QF) has capacity of at least 40 kW AC but less than 1,000 kW AC and does not comply with the Individual System Capacity Limits, then the rate codes A51-A56 do not apply. These rate codes also do not apply, for example, where the QF or other distributed generation (DG) has a capacity of 1,000 kW AC or more. In circumstances where Rate Codes A51-A56 do not apply, then the Section 9 Uniform Statewide Contract also does not apply. Where the Section 9 Uniform Statewide Contract does not apply, the DG customer may apply for interconnection under the Company's Section 10 tariff. Whether the Company pays for energy or capacity delivered to it would depend on whether there is a power purchase agreement (PPA) and further depend on the rates, terms and conditions in the PPA. Nothing in this tariff shall be construed to obligate Company to enter into a PPA. The obligation to enter into such a PPA with a DG customer takes into consideration many factors, including whether there is a Legally Enforceable Obligation (LEO) of the Company to enter into such a PPA and the proposed rates, terms and conditions. The Company may also voluntarily enter into a PPA with a DG customer. Should a DG customer and Company enter into a PPA where the Section 9 Uniform Statewide Contract does not apply (and no other Section 9 tariffed contract applies, such as a Solar\*Rewards contract), then the following procedures will apply:

1. If the DG is over 10 MW AC nameplate capacity, then the PPA along with the associated Interconnection Agreement will need to be approved by the Commission.
2. If the DG has a nameplate capacity of 40 kW up to and including 10 MW AC, and is for a term of more than 5 years, the Company shall file the PPA with the Commission and the Company shall be permitted to proceed with the PPA beginning 32 days after filing if no objection or intent to object is filed within 30 days of filing. If there is an objection or intent to object filed in this 30-day time frame, then the Commission will need to issue an order approving the PPA before the PPA is approved.
3. If the DG has a nameplate capacity of 40 kW up to and including 10 MW AC, and is for a term of 5 years or less, the Company may proceed with the PPA, but the Commission can examine the prudence of rates in the PPA during any request for rate recovery.
4. Notwithstanding the above, if the Commission has otherwise directed that a Commission order is needed for the PPA to be approved then that Commission directive shall apply.

**SOLAR\*REWARDS CUSTOMER CONTRACT**  
**(CLOSED TO NEW APPLICANTS AS OF JUNE 17, 2019)**

Section No. 9  
~~1st~~2nd Revised Sheet No. 33

Application ID: \_\_\_\_\_

## **SOLAR\*REWARDS**

### **CUSTOMER CONTRACT**

#### **Customer-Sited Photovoltaic (PV) Systems Greater than 0.5 kW and No More than 40 kW DC Nameplate Capacity**

This Contract is made and entered into by and between Northern States Power Company, a Minnesota corporation, having a mailing address of 414 Nicollet Mall, Minneapolis, Minnesota 55401 ("Company"), and \_\_\_\_\_ (whether one or more, "Customer"), whose mailing address for billing and notice purposes is: \_\_\_\_\_, 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 no more than 40 kilowatts direct current ("DC") per premise, on property located at the Service Address. The total aggregate nameplate capacity per premise of all solar energy systems eligible for any Solar\*Rewards incentive shall be no more than 40 kilowatts direct current. This limitation does not restrict the customer's ownership of additional solar capacity on the premise as long as the additional solar capacity also meets the requirements of the Section 9 Tariff.
- 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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**SOLAR\*REWARDS CUSTOMER CONTRACT**  
**(CLOSED TO NEW APPLICANTS AS OF JUNE 17, 2019)**  
**(Continued)**

Section No. 9  
~~Original~~1st Revised Sheet No. 34

**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 \_\_\_.
- 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, 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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**SOLAR\*REWARDS CUSTOMER CONTRACT**  
**(CLOSED TO NEW APPLICANTS AS OF JUNE 17, 2019)**  
**(Continued)**

Section No. 9  
~~Original-1st Revised~~ Sheet No. 35

**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 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(l) 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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**SOLAR\*REWARDS CUSTOMER CONTRACT**  
**(CLOSED TO NEW APPLICANTS AS OF JUNE 17, 2019)**  
**(Continued)**

Section No. 9  
4st2nd Revised 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 no more than 40 kilowatts. -e
- g. Customer represents that the PV System shall be sized, when combined with other distributed generation resources and subscriptions provided under the Solar\*Rewards Community program associated with 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. -e  
-e
- 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](http://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 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. -D

(Continued on Sheet No. 9-37)

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		President, Northern States Power Company, a Minnesota corporation		
Docket No.	E002/M-18- <del>384</del> 714		Order Date:	<del>11-02-18</del>

<b>SOLAR*REWARDS CUSTOMER CONTRACT</b> <u><b>(CLOSED TO NEW APPLICANTS AS OF JUNE 17, 2019)</b></u> <b>(Continued)</b>	Section No. 9 <del>1st</del> 2nd Revised Sheet No. 37	9 37
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**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. If this is the only PV system at the Service Address, then 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. Each PV system at the Service Address needs its own 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 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. On-site use of energy generated by the PV System shall be unmetered for purposes of compensation, except for as provided in Section 3(b).

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(Continued on Sheet No. 9-38)

Date Filed: <del>06-08-18</del>	By: Christopher B. Clark President, Northern States Power Company, a Minnesota corporation	Effective Date: <del>11-02-18</del>
Docket No. E002/M- <del>18-38418-714</del>		Order Date: <del>11-02-18</del>

**SOLAR\*REWARDS CUSTOMER CONTRACT**  
**(CLOSED TO NEW APPLICANTS AS OF JUNE 17, 2019)**  
**(Continued)**

Section No. 9  
~~Original~~1st Revised 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 single-line 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)

Date Filed: ~~40-31-13~~ By: ~~David M. Sparby~~ Christopher B. Clark Effective Date: ~~07-23-14~~  
President and CEO of Northern States Power Company, a Minnesota corporation  
Docket No. ~~E002/M-13-~~ Order Date: ~~07-23-14~~  
~~4045E002/M-18-714~~



**SOLAR\*REWARDS CUSTOMER CONTRACT**  
**(CLOSED TO NEW APPLICANTS AS OF JUNE 17, 2019)**  
**(Continued)**

Section No. 9  
~~Original~~1st Revised Sheet No. 39

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

**Interconnection to Company Distribution System. (Continued)**

- 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.
- i. [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.
- l. 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)

Date Filed: ~~10-31-13~~ By: ~~David M. Sparby~~ Christopher B. Clark Effective Date: 07-23-14  
President, and CEO of Northern States Power Company, a Minnesota corporation  
Docket No. ~~E002/M-13-~~ Order Date: 07-23-14  
~~4015~~E002/M-18-714

**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)

“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.
- o. Customer shall effectively ground the PV System installation and to provide and install adequate surge arrester protection to prevent lightning damage to any Company distribution system equipment.

(Continued on Sheet No. 9-41)

**SOLAR\*REWARDS CUSTOMER CONTRACT**  
**(CLOSED TO NEW APPLICANTS AS OF JUNE 17, 2019)**  
**(Continued)**

Section No. 9  
~~4st~~2nd Revised 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.
- w. Customers who are exempt from the Solar Energy Standard (SES) under Minn. Stat. §216B.1691, subd. 2(f)d, shall not participate in the Solar\*Rewards program.

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(Continued on Sheet No. 9-42)

Date Filed:	<del>02-26-16</del>	By: Christopher B. Clark	Effective Date:	<del>06-01-16</del>
		President, Northern States Power Company, a Minnesota corporation		
Docket No.	<del>E999/CI-13-542 &amp;</del>		Order Date:	<del>06-01-16</del>
	<del>E002/M-13-1015</del>			
	<u>E002/M-</u>			
	<u>18-714</u>			

**SOLAR\*REWARDS CUSTOMER CONTRACT**

Section No. 9

**(CLOSED TO NEW APPLICANTS AS OF JUNE 17, 2019)**

~~Original~~1st Revised Sheet No. 42

**(Continued)**

**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)

Date Filed: ~~10-31-13~~ By: ~~David M. Sparby~~ Christopher B. Clark Effective Date: ~~07-23-14~~  
President, and CEO of Northern States Power Company, a Minnesota corporation  
Docket No. ~~E002/M-13-~~ Order Date: ~~07-23-14~~  
4015E002/M-18-714

**SOLAR\*REWARDS CUSTOMER CONTRACT**

Section No. 9

**(CLOSED TO NEW APPLICANTS AS OF JUNE 17, 2019)**

~~Original~~1st Revised Sheet No. 43

**(Continued)**

**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](http://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.
- b. 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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~~4045E002/M-18-714~~

**SOLAR\*REWARDS CUSTOMER CONTRACT**

Section No. 9

**(CLOSED TO NEW APPLICANTS AS OF JUNE 17, 2019)**

~~Original~~1st Revised Sheet No. 44

**(Continued)**

**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 10-year payments described in Section 3(b).**

**Customer Name (printed):** \_\_\_\_\_

**Customer Signature:** \_\_\_\_\_ **Date:** \_\_\_\_\_

(Continued on Sheet No. 9-45)

Date Filed: ~~10-31-13~~ By: ~~David M. Sparby~~ Christopher B. Clark Effective Date: 07-23-14  
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Docket No. ~~E002/M-13-~~ Order Date: 07-23-14  
~~1015~~E002/M-18-714

**SOLAR\*REWARDS CUSTOMER CONTRACT**

Section No. 9

**(CLOSED TO NEW APPLICANTS AS OF JUNE 17, 2019)**  
**(Continued)**

~~Original~~ 1st Revised Sheet No. 45

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

**Northern States Power Company, a Minnesota corporation**

By: \_\_\_\_\_ Date: \_\_\_\_\_  
as authorized agent for Northern States Power Company

Title: \_\_\_\_\_

Please mail the signed Solar\*Rewards Contract to the Solar\*Rewards program manager at the address shown below. The Contract will be signed by Company and a copy of the Contract will be mailed back to you.

Solar\*Rewards Company 414 Nicollet Mall – 6th Floor Minneapolis, MN 55401 Fax: 800-252-4371  
Solar\*Rewards Program Manager: \_\_\_\_\_

(Continued on Sheet No. 9-46)

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4015E002/M-18-714

**SOLAR\*REWARDS CUSTOMER CONTRACT**

Section No. 9

**(CLOSED TO NEW APPLICANTS AS OF JUNE 17, 2019)**

~~Original~~ 1st Revised Sheet No. 46

**(Continued)**

**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:

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: ~~10-31-13~~ By: ~~David M. Sparby~~ Christopher B. Clark Effective Date: 07-23-14  
President, ~~and CEO~~ of Northern States Power Company, a Minnesota corporation  
Docket No. ~~E002/M-13-~~ Order Date: 07-23-14  
4045E002/M-18-714



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

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**SOLAR\*REWARDS CUSTOMER CONTRACT**

Section No. 9

(CLOSED TO NEW APPLICANTS AS OF JUNE 17, 2019)  
(Continued)

~~Original~~ 1st Revised Sheet No. 47

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

**N**

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Date Filed: ~~10-31-13~~ By: ~~David M. Sparby~~ Christopher B. Clark Effective Date: ~~07-23-14~~  
President, ~~and CEO of~~ Northern States Power Company, a Minnesota corporation  
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4015E002/M-18-714

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

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**SOLAR\*REWARDS CUSTOMER CONTRACT**

Section No. 9

**(CLOSED TO NEW APPLICANTS AS OF JUNE 17, 2019)**  
**(Continued)**

~~Original~~ 1st Revised Sheet No. 48

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

~~N~~  
~~N~~

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Date Filed: ~~10-31-13~~ By: ~~David M. Sparby~~ Christopher B. Clark Effective Date: ~~07-23-14~~  
President, ~~and CEO of~~ Northern States Power Company, a Minnesota corporation  
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4015E002/M-18-714

~~RESERVED FOR FUTURE USE~~SOLAR\*REWARDS  
CUSTOMER CONTRACT (Continued)

Section No. 9  
~~Original~~1st Revised Sheet No. 49

~~RESERVED FOR FUTURE USE~~

Application ID: \_\_\_\_\_

## SOLAR\*REWARDS

### CUSTOMER CONTRACT

#### Customer-Sited Photovoltaic (PV) Systems Greater than 0.5 kW and No More than 40 kW DC Nameplate Capacity

This Contract is made and entered into by and between Northern States Power Company, a Minnesota corporation, having a mailing address of 414 Nicollet Mall, Minneapolis, Minnesota 55401 ("Company"), and \_\_\_\_\_ (whether one or more, "Customer"), whose mailing address for billing and notice purposes is: \_\_\_\_\_, 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 no more than 40 kilowatts direct current ("DC") per premise, on property located at the Service Address. The total aggregate nameplate capacity per premise of all solar energy systems eligible for any Solar\*Rewards incentive shall be no more than 40 kilowatts direct current. This limitation does not restrict the customer's ownership of additional solar capacity on the premise as long as the additional solar capacity also meets the requirements of the Section 9 Tariff.
- 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 as provided for in the Minnesota Distributed Energy Resources Interconnection Process (MN DIP) as tariffed by the Company.
- e. 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.
- f. All interconnection applications submitted under this Solar\*Rewards tariff must be submitted under the Minnesota Distributed Energy Resources Interconnection Process (MN DIP) as implemented in the Company tariffs. Consistent with this and the decision on how it wants to be compensated for net metering, the Customer at the applicable time will also need to sign the Uniform Statewide Contract (Section 9, Sheet Nos. 10-12) and/or the Minnesota Distributed Energy Resource Interconnection Agreement (MN DIA) as implemented in Company tariffs.

(Continued on Sheet No. 9-49.01)

Date Filed:	<del>10-31-13</del>	By: <del>David M. Sparby</del> <u>Christopher B. Clark</u>	Effective Date:	<del>07-23-14</del>
		President, and CEO of Northern States Power Company, a Minnesota corporation		
Docket No.	<del>E002/M-13-</del>		Order Date:	<del>07-23-14</del>
	<del>4015</del> <u>E002/M-18-714</u>			

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**SOLAR\*REWARDS CUSTOMER CONTRACT**  
**(Continued)**

Section No. 9  
Original Sheet No. 49.01

**2. Purchases and Sales of Electricity.**

Customer and Company agree:

a. Company will buy electricity generated by the PV System from Customer under the applicable Company rate schedule filed with the Commission and under the applicable rate code selected by the Customer under the Uniform Statewide Contract. The available rate codes are as follows:

- Average Retail Rate, Rate Code A50

- Sale to Company after Customer Self-Use, Non-TOD/TOD, Rate Codes A51/A52

- Monthly Net Metering, Non-TOD/TOD, Rate Codes A53/A54

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.

b. Customer will pay a monthly metering charge under the Company tariff elected by the Customer, 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.

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(Continued on Sheet No. 9-49.02)

Date Filed: \_\_\_\_\_ By: Christopher B. Clark Effective Date: \_\_\_\_\_  
President, Northern States Power Company, a Minnesota corporation  
Docket No. E002/M-18-714 Order Date: \_\_\_\_\_

**SOLAR\*REWARDS CUSTOMER CONTRACT**  
**(Continued)**

Section No. 9  
Original Sheet No. 49.02

**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(d) 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.

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(Continued on Sheet No. 9-49.03)

Date Filed: By: Christopher B. Clark Effective Date:  
President, Northern States Power Company, a Minnesota corporation  
Docket No. E002/M-18-714 Order Date:

**SOLAR\*REWARDS CUSTOMER CONTRACT**  
**(Continued)**

Section No. 9  
Original Sheet No. 49.03

**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 no more than 40 kilowatts.
- g. Customer represents that the PV System shall be sized, when combined with other distributed generation resources and subscriptions provided under the Solar\*Rewards Community program associated with 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](http://www.xcelenergy.com).
- i. The Customer is not a participant in the Made in Minnesota program for the PV System covered by this Contract.
- j. The Customer has not received an incentive 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.

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(Continued on Sheet No. 9-49.04)

Date Filed: By: Christopher B. Clark Effective Date:  
President, Northern States Power Company, a Minnesota corporation  
Docket No. E002/M-18-714 Order Date:

**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. Each PV System subject to any Solar\*Rewards incentive at the Service Address needs its own production meter. Customer shall be charged monthly the metering charge described in the Rate Code selected by the Customer in Section 2(c) above.

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 as provided for in the Uniform Statewide Contract. On-site use of energy generated by the PV System shall be unmetered for purposes of compensation, except for as provided in Section 3(b).

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(Continued on Sheet No. 9-49.05)

**SOLAR\*REWARDS CUSTOMER CONTRACT**  
**(Continued)**

Section No. 9  
Original Sheet No. 49.05

**Definition.**

d. For purposes of this Contract, these terms have the following meanings:

"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. (Continued)**

e. 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.

**Additional Requirements.**

f. This Contract shall apply to new PV solar equipment only. Used equipment does not qualify for the payment described in Section 3(b).

g. 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.

h. Customers who are exempt from the Solar Energy Standard (SES) under Minn. Stat. §216B.1691, subd. 2(f)d, shall not participate in the Solar\*Rewards program.

(Continued on Sheet No. 9-49.06)



**SOLAR\*REWARDS CUSTOMER CONTRACT**  
**(Continued)**

Section No. 9  
Original Sheet No. 49.06

**6. Limitations and Liabilities.**

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.

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(Continued on Sheet No. 9-49.07)

**SOLAR\*REWARDS CUSTOMER CONTRACT**  
**(Continued)**

Section No. 9  
Original Sheet No. 49.07

**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](http://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.
- b. 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. 9-49.08)

Date Filed: \_\_\_\_\_ By: Christopher B. Clark Effective Date: \_\_\_\_\_  
President, Northern States Power Company, a Minnesota corporation  
Docket No. E002/M-18-714 Order Date: \_\_\_\_\_

**SOLAR\*REWARDS CUSTOMER CONTRACT**  
**(Continued)**

Section No. 9  
Original Sheet No. 49.08

**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 10-year payments described in Section 3(b).**

**Customer Name (printed):** \_\_\_\_\_

**Customer Signature:** \_\_\_\_\_ **Date:** \_\_\_\_\_

(Continued on Sheet No. 9-49.09)

**SOLAR\*REWARDS CUSTOMER CONTRACT**  
**(Continued)**

Section No. 9  
Original Sheet No. 49.09

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

Northern States Power Company, a Minnesota corporation

By: \_\_\_\_\_ Date: \_\_\_\_\_  
as authorized agent for Northern States Power Company

Title: \_\_\_\_\_

Please mail the signed Solar\*Rewards Contract to the Solar\*Rewards program manager at the address shown below. The Contract will be signed by Company and a copy of the Contract will be mailed back to you.

Solar\*Rewards Company 414 Nicollet Mall – 6th Floor Minneapolis, MN 55401 Fax: 800-252-4371  
Solar\*Rewards Program Manager: \_\_\_\_\_

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(Continued on Sheet No. 9-49.10)

**SOLAR\*REWARDS CUSTOMER CONTRACT**  
**(Continued)**

Section No. 9  
Original Sheet No. 49.10

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

N

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:

- 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

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(Continued on Sheet No. 9-49.11)

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

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**SOLAR\*REWARDS CUSTOMER CONTRACT**  
**(Continued)**

Section No. 9  
Original Sheet No. 49.11

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

**N**

(Continued on Sheet No. 9-49.12)

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Date Filed:	By: Christopher B. Clark	Effective Date:
	President, Northern States Power Company, a Minnesota corporation	
Docket No. E002/M-18-714		Order Date:

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

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**SOLAR\*REWARDS CUSTOMER CONTRACT**  
**(Continued)**

Section No. 9  
Original Sheet No. 49.12

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

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Date Filed: By: Christopher B. Clark Effective Date:  
President, Northern States Power Company, a Minnesota corporation  
Docket No. E002/M-18-714 Order Date:

**SOLAR\*REWARDS COMMUNITY CONTRACT  
FOR THOSE RECEIVING SOLAR\*REWARDS INCENTIVE  
(CLOSED TO NEW APPLICANTS AS OF JUNE 17, 2019)**

Section No. 9  
~~1st~~<sup>2nd</sup> Revised 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 No More than 40 kW DC Nameplate Capacity**

This Contract is made and entered into by and between Northern States Power Company, a Minnesota corporation, having a mailing address of 414 Nicollet Mall, Minneapolis, Minnesota 55401 ("Company"), and \_\_\_\_\_ ("Community Solar Garden Operator"), whose mailing address for billing and notice purposes is: \_\_\_\_\_, 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 no more than 40 kilowatts direct current ("DC") per premise, on property located at the Service Address. The total aggregate nameplate capacity per premise of all solar energy systems eligible for any Solar\*Rewards incentive shall be no more than 40 kilowatts direct current. This limitation does not restrict the customer's ownership of additional solar capacity on the premise as long as the additional solar capacity also meets the requirements of the Section 9 Tariff.
- b. 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: ~~06-08-18~~ By: Christopher B. Clark Effective Date: ~~11-02-18~~  
President, Northern States Power Company, a Minnesota corporation  
Docket No. E002/M-18-~~384~~<sup>714</sup> Order Date: ~~11-02-18~~



**SOLAR\*REWARDS COMMUNITY CONTRACT**  
**FOR THOSE RECEIVING SOLAR\*REWARDS INCENTIVE**  
**(CLOSED TO NEW APPLICANTS AS OF JUNE 17, 2019)**  
**(Continued)**

Section No. 9  
Original-1st Revised 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~~ Christopher B. Clark 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-~~ Order Date: 09-17-14  
~~4045E002/M-18-714~~

**SOLAR\*REWARDS COMMUNITY CONTRACT  
FOR THOSE RECEIVING SOLAR\*REWARDS INCENTIVE  
(CLOSED TO NEW APPLICANTS AS OF JUNE 17, 2019)  
(Continued)**

Section No. 9  
~~Original~~1st Revised 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~~ Christopher B. Clark Effective Date: ~~09-17-14~~  
President, ~~and CEO~~ of Northern States Power Company, a Minnesota corporation  
Docket No. ~~E002/M-13-867 & E002/M-13-4015~~ E002/M-18-714 Order Date: ~~09-17-14~~

**SOLAR\*REWARDS COMMUNITY CONTRACT  
FOR THOSE RECEIVING SOLAR\*REWARDS INCENTIVE  
(CLOSED TO NEW APPLICANTS AS OF JUNE 17, 2019)  
(Continued)**

Section No. 9  
~~4st~~2nd Revised 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 no more than 40 kilowatts. C
- 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](http://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 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. D
- 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.**

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

(Continued on Sheet No. 9-54)

Date Filed: ~~06-08-18~~ By: Christopher B. Clark Effective Date: ~~11-02-18~~  
President, Northern States Power Company, a Minnesota corporation  
Docket No. E002/M-18-~~384~~714 Order Date: ~~11-02-18~~

**SOLAR\*REWARDS COMMUNITY CONTRACT  
FOR THOSE RECEIVING SOLAR\*REWARDS INCENTIVE  
(CLOSED TO NEW APPLICANTS AS OF JUNE 17, 2019)**

Section No. 9  
~~Original-1st Revised~~ Sheet No. 54

(Continued)

**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~~ Christopher B. Clark Effective Date: ~~09-17-14~~  
President, ~~and CEO of~~ Northern States Power Company, a Minnesota corporation  
Docket No. ~~E002/M-13-867 & E002/M-13-4015~~ E002/M-18-714 Order Date: ~~09-17-14~~

**SOLAR\*REWARDS COMMUNITY CONTRACT**  
**FOR THOSE RECEIVING SOLAR\*REWARDS INCENTIVE**  
**(CLOSED TO NEW APPLICANTS AS OF JUNE 17, 2019)**  
**(Continued)**

Section No. 9  
Original-1st Revised 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)

Date Filed: ~~09-30-13 & 10-31-13~~ By: ~~David M. Sparby~~ Christopher B. Clark 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-~~ Order Date: 09-17-14  
~~4045~~E002/M-18-714

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

Section No. 9

~~Original~~1st Revised Sheet No. 56

**(CLOSED TO NEW APPLICANTS AS OF JUNE 17, 2019)**

**(Continued)**

**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](http://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.
- b. 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~~ Christopher B. Clark 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-~~ Order Date: 09-17-14  
~~4015~~E002/M-18-714

**SOLAR\*REWARDS COMMUNITY CONTRACT  
FOR THOSE RECEIVING SOLAR\*REWARDS INCENTIVE  
(CLOSED TO NEW APPLICANTS AS OF JUNE 17, 2019)  
(Continued)**

Section No. 9  
~~Original~~1st Revised 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~~ Christopher B. Clark 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-~~ Order Date: 09-17-14  
~~4015E002/M-18-714~~

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

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**SOLAR\*REWARDS COMMUNITY CONTRACT**  
**FOR THOSE RECEIVING SOLAR\*REWARDS INCENTIVE**  
**(CLOSED TO NEW APPLICANTS AS OF JUNE 17, 2019)**  
**(Continued)**

Section No. 9  
~~Original~~1st Revised Sheet No. 58

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**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**

**By:** \_\_\_\_\_ **Date:** \_\_\_\_\_  
as authorized agent for Northern States Power Company

**Title:** \_\_\_\_\_

**Please mail this signed Solar\*Rewards Community Contract For Those Receiving Solar\*Rewards Incentive to the Solar\*Rewards program manager at the address shown below. The Contract will be signed by Company and a copy of the Contract will be mailed back to you.**

**Solar\*Rewards Company 414 Nicollet Mall – 6th Floor Minneapolis, MN 55401 Fax: 800-252-4371**  
**Solar\*Rewards Program Manager:** \_\_\_\_\_

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Date Filed: ~~09-30-13 & 10-31-13~~ By: ~~David M. Sparby~~Christopher B. Clark 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-~~ Order Date: ~~09-17-14~~  
~~4045~~E002/M-18-714



**SOLAR\*REWARDS COMMUNITY CONTRACT  
FOR THOSE RECEIVING SOLAR\*REWARDS INCENTIVE  
(CLOSED TO NEW APPLICANTS AS OF JUNE 17, 2019)  
(Continued)**

Section No. 9  
Original-1st Revised 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~~ Christopher B. Clark 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-~~ Order Date: 09-17-14  
~~4045~~E002/M-18-714

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

Section No. 9  
Original Sheet No. 59.01

Application ID: \_\_\_\_\_

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

**CONTRACT**

**Solar Garden Photovoltaic (PV) Systems Greater than 1 kW and No More than 40 kW DC Nameplate Capacity**

This Contract is made and entered into by and between Northern States Power Company, a Minnesota corporation, having a mailing address of 414 Nicollet Mall, Minneapolis, Minnesota 55401 ("Company"), and \_\_\_\_\_ ("Community Solar Garden Operator"), whose mailing address for billing and notice purposes is: \_\_\_\_\_, 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 no more than 40 kilowatts direct current ("DC") per premise, on property located at the Service Address. The total aggregate nameplate capacity per premise of all solar energy systems eligible for any Solar\*Rewards incentive shall be no more than 40 kilowatts direct current. This limitation does not restrict the customer's ownership of additional solar capacity on the premise as long as the additional solar capacity also meets the requirements of the Section 9 Tariff.

- b. \_\_\_\_\_ 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. 9-59.02)

Date Filed:

By: Christopher B. Clark

Effective Date:

President, Northern States Power Company, a Minnesota corporation

Docket No. E002/M-18-714

Order Date:

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

Section No. 9  
Original Sheet No. 59.02

**2. Purchases and Sales of Electricity.**

Community Solar Garden Operator 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.

N

N

(Continued on Sheet No. 9-59.03)

Date Filed:

By: Christopher B. Clark  
President, Northern States Power Company, a Minnesota corporation

Effective Date:

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Order Date:

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

Section No. 9  
Original Sheet No. 59.03

**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. 9-59.04)

Date Filed:

By: Christopher B. Clark  
President, Northern States Power Company, a Minnesota corporation

Effective Date:

Docket No. E002/M-18-714

Order Date:

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

Section No. 9  
Original Sheet No. 59.04

**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 no more than 40 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](http://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 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. Community Solar Garden Operator 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.**

- b. Interconnection requirements are set forth in the Standard Contract for Solar\*Rewards Community applicable to applications filed on or after June 17, 2019.

(Continued on Sheet No. 9-59.05)

Date Filed:

By: Christopher B. Clark  
President, Northern States Power Company, a Minnesota corporation

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Order Date:

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

Section No. 9  
Original Sheet No. 59.05

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

**N**

**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.

**N**

(Continued on Sheet No. 9-59.06)

Date Filed:

By: Christopher B. Clark

Effective Date:

President, Northern States Power Company, a Minnesota corporation

Docket No. E002/M-18-714

Order Date:

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

Section No. 9  
Original Sheet No. 59.06

**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. 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.
- c. 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.
- d. 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. 9-59.07)

Date Filed: By: Christopher B. Clark Effective Date:  
President, Northern States Power Company, a Minnesota corporation  
Docket No. E002/M-18-714 Order Date:

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

Section No. 9  
Original Sheet No. 59.07

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

**N**

- 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](http://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.
- b. 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.

**N**

(Continued on Sheet No. 9-59.08)

Date Filed:

By: Christopher B. Clark

Effective Date:

President, Northern States Power Company, a Minnesota corporation

Docket No. E002/M-18-714

Order Date:



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

Section No. 9  
Original Sheet No. 59.08

**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. 9-59.09)

Date Filed: \_\_\_\_\_ By: Christopher B. Clark Effective Date: \_\_\_\_\_  
President, Northern States Power Company, a Minnesota corporation  
Docket No. E002/M-18-714 Order Date: \_\_\_\_\_

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

Section No. 9  
Original Sheet No. 59.09

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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

By: \_\_\_\_\_ Date: \_\_\_\_\_  
as authorized agent for Northern States Power Company

Title: \_\_\_\_\_

Please mail this signed Solar\*Rewards Community Contract For Those Receiving Solar\*Rewards Incentive to the Solar\*Rewards program manager at the address shown below. The Contract will be signed by Company and a copy of the Contract will be mailed back to you.

Solar\*Rewards Company 414 Nicollet Mall – 6th Floor Minneapolis, MN 55401 Fax: 800-252-4371  
Solar\*Rewards Program Manager: \_\_\_\_\_

(Continued on Sheet No. 9-59.10)

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Date Filed: \_\_\_\_\_ By: Christopher B. Clark Effective Date: \_\_\_\_\_  
President, Northern States Power Company, a Minnesota corporation  
Docket No. E002/M-18-714 Order Date: \_\_\_\_\_

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

Section No. 9  
Original Sheet No. 59.10

**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:

- 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

**ASSIGNMENT OF CONTRACT**  
**(Continued)**

Section No. 9  
~~Original~~ 1st Revised Sheet No. 61

5. Company shall have ownership of all RECs produced by the PV System during the term of the attached Contract.

6. In order for this Assignment of Contract to be valid, the following must also occur. If the MN DIA has been signed, then the tariffed Assignment of Minnesota Distributed Energy Resource Interconnection Agreement needs to also be signed by the Assignor, Assignee and Northern States Power Company. Further, if the Uniform Statewide Contract has also been signed pertaining to the PV System, then the Assignee and Northern States Power Company also need to sign a new Uniform Statewide Contract pertaining to the PV System that is the subject of the Solar\*Rewards contract. However, no additional engineering review fees or costs shall be applied to the Assignee for the signing of this Uniform Statewide Contract if the new contract is merely replacing a similar contract for the same PV System. The effective date of the newly signed Uniform Statewide Contract shall coincide with the cancellation date of the prior Uniform Statewide 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: \_\_\_\_\_

Title: \_\_\_\_\_

Date Filed: ~~10-31-13~~ By: ~~David M. Sparby~~ Christopher B. Clark Effective Date: 07-23-14  
President, ~~and CEO~~ of Northern States Power Company, a Minnesota corporation  
Docket No. ~~E002/M-13-~~ Order Date: 07-23-14  
4015E002/M-18-714

**SOLAR\*REWARDS COMMUNITY PROGRAM**

Section No. 9  
~~5th~~6th Revised Sheet No. 64

**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.

**DEFINITIONS**

Deemed Complete - For applications that are not subject to the MN DIP, the term “Deemed Complete” shall mean the successful completion of the requirements in tariff Section 9, Sheet No. 67, step (i). For applications that are subject to the MN DIP, the term “Deemed Complete” shall mean the last date of any of the following: date-and-time stamp of receipt of a complete Interconnection Application as provided for in MN DIP section 1.5.2.; completing the application for the Solar\*Rewards Community Program; and, paying the Solar\*Rewards Community Program application fee and deposit.

Mechanical Completion - For applications that are not subject to the MN DIP, the term “Mechanical Completion” is as defined in tariff Section 9, Sheet No. 68, par. 1.i. For applications that are subject to the MN DIP, the term “Mechanical Completion” shall mean the date when all of the following have been completed:

- Installation of the DER;
- Submission to the Company of proof of insurance, as required by Company tariffs or MN DIA;
- Submission to the Company of State of Minnesota electrical inspection forms (“Blue Copy”) filed with the Company showing successful completion of testing; and,
- Inspection and functional testing of DER components.

**RATE**

The Bill Credit Rate that applies is either based on:

1. The applicable retail rate
  - a. for applications that on or before December 31, 2016, have met the requirements in tariff Section 9, Sheet 67, step (i) (“Deemed Complete” or “Initial Application Completeness”); or,
  - b. for applications that otherwise qualify as provided for in an authorized amendment to the Standard Contract for Solar\*Rewards Community; or,
2. The Value of Solar (VOS) rate for applications that are Deemed Complete on or after January 1, 2017, and that do not qualify for the applicable retail rate.

**APPLICABLE RETAIL RATE**

~~The applicable retail rate Bill Credit Rate below is applicable to those applications that were Deemed Complete on or before December 31, 2016 or otherwise qualify as provided for in an authorized amendment to the Standard Contract for Solar\*Rewards Community.~~

~~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.~~

<del>Customer Class</del>	<del>Bill Credit Type</del>	<del>Bill Credit Rate per kWh (AC)</del>
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(Continued on Sheet No. 9-~~6564.1~~)

Date Filed: **02-01-18** By: Christopher B. Clark Effective Date: **04-01-18**  
 President, Northern States Power Company, a Minnesota corporation  
 Docket No. ~~E002/M-13-~~ Order Date: **03-29-18**  
**867E002/M-18-714**

**SOLAR\*REWARDS COMMUNITY PROGRAM**

Section No. 9  
~~5th~~<sup>6th</sup> Revised Sheet No. 64

		for Energy Delivered to Company-
Residential Service	Standard	<del>\$0.13539</del>
	Enhanced—Solar Gardens > 250 KW (AC)	<del>\$0.15539</del>
	Enhanced—Solar Gardens ≤ 250 KW (AC)	<del>\$0.16539</del>
Small General Service	Standard	<del>\$0.12844</del>
	Enhanced—Solar Gardens > 250 KW (AC)	<del>\$0.14844</del>
	Enhanced—Solar Gardens ≤ 250 KW (AC)	<del>\$0.15844</del>
General Service	Standard	<del>\$0.10515</del>
	Enhanced—Solar Gardens > 250 KW (AC)	<del>\$0.12515</del>
	Enhanced—Solar Gardens ≤ 250 KW (AC)	<del>\$0.13515</del>

(Continued on Sheet No. 9-~~6564~~<sup>6564.1</sup>)

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~~867E002/M-18-714~~

**SOLAR\*REWARDS COMMUNITY PROGRAM**  
**(Continued)**

Section No. 9  
~~2nd-3rd~~ Revised Sheet No. 64.1

**APPLICABLE RETAIL RATE**

The applicable retail rate Bill Credit Rate below is applicable to those applications that were Deemed Complete on or before December 31, 2016 or otherwise qualify as provided for in an authorized amendment to the Standard Contract for Solar\*Rewards Community.

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.

<u>Customer Class</u>	<u>Bill Credit Type</u>	<u>Bill Credit Rate per kWh (AC) for Energy Delivered to Company</u>
<u>Residential Service</u>	<u>Standard</u>	<u>\$0.13539</u>
	<u>Enhanced – Solar Gardens &gt; 250 KW (AC)</u>	<u>\$0.15539</u>
	<u>Enhanced – Solar Gardens ≤ 250 KW (AC)</u>	<u>\$0.16539</u>
<u>Small General Service</u>	<u>Standard</u>	<u>\$0.12844</u>
	<u>Enhanced – Solar Gardens &gt; 250 KW (AC)</u>	<u>\$0.14844</u>
	<u>Enhanced – Solar Gardens ≤ 250 KW (AC)</u>	<u>\$0.15844</u>
<u>General Service</u>	<u>Standard</u>	<u>\$0.10515</u>
	<u>Enhanced – Solar Gardens &gt; 250 KW (AC)</u>	<u>\$0.12515</u>
	<u>Enhanced – Solar Gardens ≤ 250 KW (AC)</u>	<u>\$0.13515</u>

**APPLICABLE RETAIL 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.

**VALUE OF SOLAR (VOS) BILL CREDIT RATE**

The following definitions apply:-

~~“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.~~

~~“Term of the Contract” means the term of the Standard Contract for Solar\*Rewards Community.~~

(Continued on Sheet No. 9-64.4042)

Date Filed: ~~10-02-17~~ By: Christopher B. Clark Effective Date: ~~04-05-18~~  
 President, Northern States Power Company, a Minnesota corporation  
 Docket No. ~~E002/M-13-~~ Order Date: ~~03-26-18~~  
~~867E002/M-18-714~~

**SOLAR\*REWARDS COMMUNITY PROGRAM**  
**(Continued)**

Section No. 9  
~~2nd-3rd~~ Revised Sheet No. 64.1

~~The specific VOS Bill Credit Rate to be applied will depend on several factors. Each application Deemed Complete in a given calendar year will have a VOS Bill Credit Rate table applicable to the vintage of the VOS based on the calendar year it was Deemed Complete ("VOS Vintage Year"). In the event a VOS Vintage Year Bill Credit Rate table is not approved for part or all of a given calendar year, the most recently approved VOS Vintage Year Bill Credit Rate table will apply to applications Deemed Complete in that calendar year until a new VOS Vintage Year Bill Credit Rate table becomes effective. Each VOS Vintage Year table of Bill Credit Rates will have separate rates for each of the 25 years of production from the garden. The rate for Year 1 for a given VOS Vintage Year will apply for all Bill Credits associated with production in the first calendar month associated with the Date of Commercial Operation and all subsequent calendar months in the same calendar year. The VOS Bill Credit Rate for Year 2 for a given VOS Vintage Year will apply for all calendar months in the following calendar year. In the same way, the rates for Year 3 through 25 shall apply in sequential order for each of the following calendar years. Where the Date of Commercial Operation is not January 1, the Year 25 rate shall also apply to the final calendar year up to the end of the Term of the Contract.~~

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(Continued on Sheet No. 9-64.~~4042~~)

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President, Northern States Power Company, a Minnesota corporation  
Docket No. ~~E002/M-13-~~ Order Date: ~~03-26-18~~  
~~867E002/M-18-714~~



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**SOLAR\*REWARDS COMMUNITY PROGRAM**  
**(Continued)**

Section No. 9  
Original Sheet No. 64.2

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**VALUE OF SOLAR (VOS) BILL CREDIT RATE**

The following definitions apply:

“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.

“Term of the Contract” means the term of the Standard Contract for Solar\*Rewards Community.

The specific VOS Bill Credit Rate to be applied will depend on several factors. Each application Deemed Complete in a given calendar year will have a VOS Bill Credit Rate table applicable to the vintage of the VOS based on the calendar year it was Deemed Complete (“VOS Vintage Year”). In the event a VOS Vintage Year Bill Credit Rate table is not approved for part or all of a given calendar year, the most recently approved VOS Vintage Year Bill Credit Rate table will apply to applications Deemed Complete in that calendar year until a new VOS Vintage Year Bill Credit Rate table becomes effective. Each VOS Vintage Year table of Bill Credit Rates will have separate rates for each of the 25 years of production from the garden. The rate for Year 1 for a given VOS Vintage Year will apply for all Bill Credits associated with production in the first calendar month associated with the Date of Commercial Operation and all subsequent calendar months in the same calendar year. The VOS Bill Credit Rate for Year 2 for a given VOS Vintage Year will apply for all calendar months in the following calendar year. In the same way, the rates for Year 3 through 25 shall apply in sequential order for each of the following calendar years. Where the Date of Commercial Operation is not January 1, the Year 25 rate shall also apply to the final calendar year up to the end of the Term of the Contract.

(Continued on Sheet No. 9-64.101)

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President, Northern States Power Company, a Minnesota corporation  
Docket No. E002/M-18-714 \_\_\_\_\_ Order Date: \_\_\_\_\_

**SOLAR\*REWARDS COMMUNITY PROGRAM**  
**(Continued)**

Section No. 9  
~~Original-1st Revised~~ 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 a ~~program~~ application fee of \$1,200 to the Company. This application fee may be by check or wire transfer. The ~~program~~ application fee is meant to cover the cost to the Company of processing the ~~program~~ application. ~~This is in addition to the interconnection application fee and other interconnection fees or costs.~~

(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.

l. 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)

Date Filed:	<del>12-18-15</del>	By: Christopher B. Clark	Effective Date:	<del>12-18-15</del>
		President, Northern States Power Company, a Minnesota corporation		
Docket No.	<del>E002/M-13-</del> <del>867E002/M-18-714</del>		Order Date:	<del>12-15-15</del>

**SOLAR\*REWARDS COMMUNITY PROGRAM**  
**(Continued)**

Section No. 9  
~~2nd-3rd~~ Revised Sheet No. 67

**APPLICATION TO THE PROGRAM**

(Note – the provisions for “Application to the Program” on Sheet Nos. 67 and 67.1 only apply to applications that are not subject to the MN DIP).

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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.

G  
G

After the Company determines initial application completeness, the applicant will submit information according to steps (ii) – (vi). The applicant shall achieve Mechanical Completion of the project within twenty-four (24) months from the later of August 6, 2015 or 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. Day-for-day extensions will also be applied to the extent the application is the subject of an Independent Engineer review (Section 9, Sheets 68.11–68.13) or to the extent it is directly delayed as the result of an Independent Engineer review for another application in the same Study Queue. The Company shall provide, upon an applicant’s good-faith request, written confirmation of the then-current Mechanical Completion deadline for an application under this section, accounting for applicable day-for-day extensions.

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(Continued on Sheet No. 9-67.1)

Date Filed:	<del>12-01-16</del>	By: Christopher B. Clark President, Northern States Power Company, a Minnesota corporation	Effective Date:	<del>09-06-16</del>
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**SOLAR\*REWARDS COMMUNITY PROGRAM**  
**(Continued)**

Section No. 9  
Original Sheet No. 67.2

**APPLICATION TO THE PROGRAM**

(Note – the provisions for “Application to the Program” on Sheet Nos. 67.2 and 67.3 only apply to applications that are subject to the MN DIP).

Applications will have their interconnection application be processed consistent with the MN DIP as long as the application continues to comply with tariff and program requirements.

If at any time the application is no longer valid under the MN DIP process, then the application to the program shall be considered to be withdrawn and no longer valid. If the applicant still desires to proceed with a Community Solar Garden at that site, it will need to submit a new application under the then-current program rules. Examples of an application no longer being valid under the MN DIP process, include, but are not limited to, the following:

- A. Applicant makes a “Material Modification” resulting in withdrawing the application or proceeding with a new interconnection application (MN DIP section 1.6.2.1);
- B. There has been a “withdrawal of Interconnection Application” (MN DIP sections 1.8.2 or 3.4.4);
- C. The application is “deemed withdrawn” (MN DIP sections 1.5.2, 1.6.2.1, 1.8.2, or 5.1.2)
- D. A situation is “deemed a withdrawal” of an application (MN DIP section 1.6.4),
- E. An application is “withdrawn by the Interconnection Customer” (MN DIP section 3.4.1); or
- F. The application “must be withdrawn” (MN DIP section 5.14.3)

The applicant shall achieve Mechanical Completion of the project within twenty-four (24) months from the date the MN DIA has been signed by both parties. Failure of the Company to meet its timeframes under the MN DIP or MN DIA following the application being Deemed Complete will extend this twenty-four (24) month period on a day-for-day basis. The Company shall provide, upon an applicant’s good-faith request, written confirmation of the then-current Mechanical Completion deadline for an application under this section, accounting for applicable day-for-day extensions.

The twenty-four (24) month period shall be tolled day-for-day for a project application that, in the Company’s determination, has suffered a Force Majeure event prior to Mechanical Completion. For purposes of this section, Force Majeure means: any act of God, act of the public enemy, war, insurrection, riot, fire, storm or flood, explosion, breakage or accident to machinery or equipment, or any other cause beyond a Party’s control, except that a local-government moratorium to issuing a permit may extend the twenty-four (24) month period for no more than an additional 6 months. Failure to seek a permit, delay in seeking a permit, or permit-processing time not subject to a moratorium is not included in this extension. An event of Force Majeure does not include an act of negligence or intentional wrongdoing.

(Continued on Sheet No. 9-67.3)

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**SOLAR\*REWARDS COMMUNITY PROGRAM  
(Continued)**

Section No. 9  
Original Sheet No. 67.3

**APPLICATION TO THE PROGRAM (Continued)**

(Note – the provisions for “Application to the Program” on Sheet Nos. 67.2 and 67.3 only apply to applications that are subject to the MN DIP).

If Mechanical Completion is not achieved within the above 24-month period time period (including allowed day-for-day extensions), and if “Substantial Progress” as defined below is not achieved within the above 24-month period time period (including allowed day-for-day extensions), then the Company will return the program deposit consistent with the provisions on Sheet No. 66.1, and the applicant, if it still intends to proceed with the project, will need to reapply and submit a new program application, including applicable application fee and deposit. Additionally, in this situation, if applicant already has an executed Interconnection Agreement, then that Interconnection Agreement may not be used for a project as part of the Solar\*Rewards Community program.

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(Continued on Sheet No. 9-68)

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**SOLAR\*REWARDS COMMUNITY PROGRAM**  
**(Continued)**

Section No. 9  
~~2nd-3rd~~ Revised Sheet No. 68

**ADDITIONAL TERMS AND CONDITIONS – FOR APPLICATIONS NOT SUBJECT TO THE MN DIP**

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1. Definitions. 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, no more than 1 MW (AC) will be allowed at a Community Solar Garden Site in the aggregate.

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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. “Mechanical Completion” means completion by the Applicant of each of the nine items the Applicant’s personnel is required to complete in Step 8 of Section 10 (at Sheet No. 98).

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j. “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.

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k. “Study Queue Position” means the applicant’s place in the Study Queue.

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(Continued on Sheet No. 9-68.1)

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**SOLAR\*REWARDS COMMUNITY PROGRAM**  
**(Continued)**

Section No. 9  
~~Original~~1st Revised Sheet No. 68.1

**ADDITIONAL TERMS AND CONDITIONS – FOR APPLICATIONS NOT SUBJECT TO THE MN DIP**  
**(Continued)**

2. Scale Down. 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)

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**SOLAR\*REWARDS COMMUNITY PROGRAM**  
**(Continued)**

Section No. 9  
~~Original-1st Revised~~ Sheet No. 68.2

**ADDITIONAL TERMS AND CONDITIONS – FOR APPLICATIONS NOT SUBJECT TO THE MN DIP**  
**(Continued)**

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~~1st Revised Sheet No. 68.3

**ADDITIONAL TERMS AND CONDITIONS – FOR APPLICATIONS NOT SUBJECT TO THE MN DIP**  
**(Continued)**

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  
~~1st~~2nd Revised Sheet No. 68.4

**ADDITIONAL TERMS AND CONDITIONS – FOR APPLICATIONS NOT SUBJECT TO THE MN DIP**  
**(Continued)**

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5. Interconnection Agreement Time Line Review (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 filing 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 10<sup>th</sup> 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 for which an application was filed on or before September 6, 2016 (i.e., applicant has entered enough information into the CSG Application System for a Solar\*Rewards Community number to be assigned).

aa. Material Upgrades that will not be performed are limited to the following:

- New substation transformer
- Upgrade substation transformer<sup>1</sup>
- Install new feeder bay
- Install new overhead or underground feeder<sup>2</sup>
- Changes that require a substation outage that materially affect service to customers or create an unreasonable operational risk

<sup>1</sup> 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.

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

(Continued on Sheet No. 9-68.5)

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**SOLAR\*REWARDS COMMUNITY PROGRAM**  
**(Continued)**

Section No. 9  
~~4st~~2nd Revised Sheet No. 68.5

**ADDITIONAL TERMS AND CONDITIONS – FOR APPLICATIONS NOT SUBJECT TO THE MN DIP**  
**(Continued)**

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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)

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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.

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(Continued on Sheet No. 9-68.6)

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**SOLAR\*REWARDS COMMUNITY PROGRAM**  
**(Continued)**

Section No. 9  
~~Original-1st Revised~~ Sheet No. 68.6

**ADDITIONAL TERMS AND CONDITIONS – FOR APPLICATIONS NOT SUBJECT TO THE MN DIP**  
**(Continued)**

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  
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**ADDITIONAL TERMS AND CONDITIONS – FOR APPLICATIONS NOT SUBJECT TO THE MN DIP**  
**(Continued)**

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  
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**ADDITIONAL TERMS AND CONDITIONS – FOR APPLICATIONS NOT SUBJECT TO THE MN DIP**  
**(Continued)**

**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-1st Revised~~ Sheet No. 68.9

**ADDITIONAL TERMS AND CONDITIONS – FOR APPLICATIONS NOT SUBJECT TO THE MN DIP**  
**(Continued)**

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-1st Revised~~ Sheet No. 68.10

**ADDITIONAL TERMS AND CONDITIONS – FOR APPLICATIONS NOT SUBJECT TO THE MN DIP**  
**(Continued)**

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 financier 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.

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(Continued on Sheet No. 9-68.11)

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**SOLAR\*REWARDS COMMUNITY PROGRAM**  
**(Continued)**

Section No. 9  
~~1st~~<sup>2nd</sup> Revised Sheet No. 68.11

**ADDITIONAL TERMS AND CONDITIONS – FOR APPLICATIONS NOT SUBJECT TO THE MN DIP**  
**(Continued)**

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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.

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.

(Continued on Sheet No. 9-68.12)

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**SOLAR\*REWARDS COMMUNITY PROGRAM**  
**(Continued)**

Section No. 9  
~~1st~~<sup>2nd</sup> Revised Sheet No. 68.12

**ADDITIONAL TERMS AND CONDITIONS – FOR APPLICATIONS NOT SUBJECT TO THE MN DIP**  
**(Continued)**

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

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 and an independent engineer selected (i.e., the contract between the applicant, Company and independent engineer has been signed), the Company shall file a notice in Docket No. E-002/M-13-867 that includes (1) the filing and date, (2) the developer, (3) the engineer assigned, and (4) a brief summary of the disputed issues.

g. 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 should address only those issues necessary to resolve the dispute between the parties. The independent engineer may request additional information from parties necessary to resolve the dispute before 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.

h. 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. As part of this program, the Company shall work with the Department and developers to develop a standardized format for independent engineer reports, including the independent engineer's credentials and licensure, and once that is developed the most current version of the standardized format should be used as the format for independent engineer reports. The independent engineer will provide a copy of the independent engineer report with its written determination via email to both the applicant and the Company. Once an independent engineer report is issued, the Company shall file it with the Commission within ten business days.

(Continued on Sheet No. 9-68.13)

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**SOLAR\*REWARDS COMMUNITY PROGRAM**  
**(Continued)**

Section No. 9  
~~4st~~<sup>2nd</sup> Revised Sheet No. 68.13

**ADDITIONAL TERMS AND CONDITIONS – FOR APPLICATIONS NOT SUBJECT TO THE MN DIP**  
**(Continued)**

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

i. 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 10 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. If an appeal is filed, notice shall be given to those on the E-002/M-13-867 service list, and the Commission will open a new docket. When a party appeals an independent engineer's report, each party must identify the documents submitted to the independent engineer in the record necessary for the Commission's record. 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.

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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

(Continued on Sheet No. 9-68.14)

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**SOLAR\*REWARDS COMMUNITY PROGRAM**  
**(Continued)**

Section No. 9  
~~Original-1st Revised~~ Sheet No. 68.14

**ADDITIONAL TERMS AND CONDITIONS – FOR APPLICATIONS NOT SUBJECT TO THE MN DIP**  
**(Continued)**

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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**SOLAR\*REWARDS COMMUNITY PROGRAM**  
**(Continued)**

Section No. 9  
~~Original~~1st Revised Sheet No. 68.15

**ADDITIONAL TERMS AND CONDITIONS – FOR APPLICATIONS NOT SUBJECT TO THE MN DIP**  
**(Continued)**

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.

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(Continued on Sheet No. 9-68.16)

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**SOLAR\*REWARDS COMMUNITY PROGRAM**  
**(Continued)**

Section No. 9  
~~1st~~ 2nd Revised Sheet No. 68.16

**ADDITIONAL TERMS AND CONDITIONS – FOR APPLICATIONS NOT SUBJECT TO THE MN DIP**  
**(Continued)**

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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.

15. Cancellation for failure to Timely Become Expedited Ready

An applicant must fulfill all of the requirements to become Expedited Ready by the later of the following:

1. 60 days from Initial Application Completeness (Section 9, Sheet 67, step (i), being "Deemed Complete").
2. 60 days from July 21, 2016.
3. When applicant has appealed to the Department a Company Co-Location Notice, 60 days from the later of the Department ruling on the issue, or if a party appeals the Department ruling, 60 days from the Commission order addressing that Co-Location Notice.

Any applicant failing to become Expedited Ready within this timeframe will be provided written notice, then canceled automatically without further notice unless cured within 10 business days of notice.

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**SOLAR\*REWARDS COMMUNITY PROGRAM**  
**(Continued)**

Section No. 9  
Original Sheet No. 68.17

**ADDITIONAL TERMS AND CONDITIONS – FOR APPLICATIONS THAT ARE SUBJECT TO THE MN DIP**

1. Definitions. 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, 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. [Intentionally Omitted].

f. “Initial Application Completeness” means shall mean Deemed Complete as defined on Sheet 64 above.

g. [Intentionally Omitted].

h. [Intentionally Omitted].

i. “Mechanical Completion” is defined on Sheet 64 above.

j. [Intentionally Omitted].

k. [Intentionally Omitted].

(Continued on Sheet No. 9-68.18)

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**SOLAR\*REWARDS COMMUNITY PROGRAM**  
**(Continued)**

Section No. 9  
Original Sheet No. 68.18

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**ADDITIONAL TERMS AND CONDITIONS – FOR APPLICATIONS THAT ARE SUBJECT TO THE MN DIP**  
**(Continued)**

2. Scale Down. 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 needs to comply with the MN DIP.

3. [Intentionally Omitted].

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(Continued on Sheet No. 9-68.19)

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**SOLAR\*REWARDS COMMUNITY PROGRAM  
(Continued)**

Section No. 9  
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**ADDITIONAL TERMS AND CONDITIONS – FOR APPLICATIONS THAT ARE SUBJECT TO THE MN DIP  
(Continued)**

4. Appeals relating to Co-Location Determination

a. [Intentionally Omitted].

b. If the Company provides any Co-Location Determination Notice(s), the applicant has the later of 10 business days from each such subsequent notice 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.) 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 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. E002/M-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.

5. [Intentionally Omitted].

6. [Intentionally Omitted].

7. [Intentionally Omitted].

8. [Intentionally Omitted].

9. [Intentionally Omitted].

10. [Intentionally Omitted].

11. [Intentionally Omitted].

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**SOLAR\*REWARDS COMMUNITY PROGRAM**  
**(Continued)**

Section No. 9  
Original Sheet No. 68.20

**ADDITIONAL TERMS AND CONDITIONS – FOR APPLICATIONS THAT ARE SUBJECT TO THE MN DIP**  
**(Continued)**

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.

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. 9-68.21)

Date Filed: By: Christopher B. Clark Effective Date:  
President, Northern States Power Company, a Minnesota corporation  
Docket No. E002/M-18-714 Order Date:

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**SOLAR\*REWARDS COMMUNITY PROGRAM**  
**(Continued)**

Section No. 9  
Original Sheet No. 68.21

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**ADDITIONAL TERMS AND CONDITIONS – FOR APPLICATIONS THAT ARE SUBJECT TO THE MN DIP**  
**(Continued)**

13. [Intentionally Omitted].

14. Cancellation for Non-payment or Failure to Timely Submit Interconnection Application.

The following steps must be taken within 30 calendar days of an SRC application number being assigned for the application to continue as an active project:

1. Program application Fee of \$1,200.
2. Deposit in the amount of \$100/kW.
3. Submission of the Interconnection Application under MN DIP Section 1.5, including payment of the interconnection processing fee or deposit specified in the Interconnection Application.

If there is any untimely action on any of these steps, then the entire application will be cancelled automatically without further notice.

15. [Intentionally Omitted].

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

Section No. 9  
~~1st~~2nd Revised Sheet No. 69.1

The VOS Bill Credit Rate is applicable to those applications that on or after January 1, 2017, meet the requirements ~~to be in tariff Section 9, Sheet 67, step (i) (“Deemed Complete as defined on Sheet No. 64” or “Initial Application-Completeness”)~~, and that do not qualify for the Standard Bill Credit or Enhanced Bill Credit.

The specific VOS Bill Credit Rate to be applied will depend on several factors. Each application Deemed Complete in a given calendar year will have a VOS Bill Credit Rate table applicable to the vintage of the VOS based on the calendar year it was Deemed Complete (“VOS Vintage Year”). In the event a VOS Vintage Year Bill Credit Rate table is not approved for part or all of a given calendar year, the most recently approved VOS Vintage Year Bill Credit Rate table will apply to applications Deemed Complete in that calendar year until a new VOS Vintage Year Bill Credit Rate table becomes effective. Each VOS Vintage Year table of Bill Credit Rates will have separate rates for each of the 25 years of production from the garden. The rate for Year 1 for a given VOS Vintage Year will apply for all Bill Credits associated with production in the first calendar month associated with the Date of Commercial Operation and all subsequent calendar months in the same calendar year. The VOS Bill Credit Rate for Year 2 for a given VOS Vintage Year will apply for all calendar months in the following calendar year. In the same way, the rates for Year 3 through 25 shall apply in sequential order for each of the following calendar years. Where the Date of Commercial Operation is not January 1, the Year 25 rate shall also apply to the final calendar year up to the end of the Term of the Contract.

(Continued on Sheet No. 9-70)

Date Filed:	<del>10-02-17</del>	By: Christopher B. Clark President, Northern States Power Company, a Minnesota corporation	Effective Date:	<del>04-05-18</del>
Docket No.	<del>E002/M-13-</del> <del>867E002/M-18-714</del>		Order Date:	<del>03-26-18</del>

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

Section No. 9  
~~4st~~2nd Revised Sheet No. 71

- f. The Community Solar Garden must comply with the Service Territory Requirement;
- 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.

“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 applicable 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.

“MN DIA” shall mean the Minnesota Distributed Energy Resource Interconnection Agreement. See, Docket No. E999/CI-16-521.

“MN DIP” shall mean the Minnesota Distributed Energy Resource Interconnection Process. See, Docket No. E999/CI-16-521. The MN DIA shall be considered to be part of the MN DIP.

“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.

(Continued on Sheet No. 9-72)

Date Filed:	<del>07-21-16</del>	By: Christopher B. Clark	Effective Date:	<del>08-11-16</del>
		President, Northern States Power Company, a Minnesota corporation		
Docket No.	<del>E002/M-13-</del>		Order Date:	<del>06-21-16</del>
	<del>867</del> <u>E002/M-18-714</u>			

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

Section No. 9  
~~1st~~2nd 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. Title, Risk of Loss, and Warranty of Title. 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. Interconnection Requirements. The Community Solar Garden Operator must sign the applicable 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~~ shall 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 for applications that are not subject to the MN DIP. The ADDITIONAL TERMS AND CONDITIONS set forth in tariff

(Continued on Sheet No. 9-76)

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-~~ Order Date: ~~12-15-15~~  
~~867E002/M-18-714~~

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

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

Section No. 9  
~~1st~~2nd Revised Sheet No. 75

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Section 9, Sheet Nos. 68.17 through 68.21, fully apply if the application that is the subject of this Agreement is subject to the MN DIP.

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(Continued on Sheet No. 9-76)

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Date Filed:	<del>12-18-15</del>	By: Christopher B. Clark President, Northern States Power Company, a Minnesota corporation	Effective Date:	<del>12-18-15</del>
Docket No.	<del>E002/M-13-</del> <del>867</del> <u>E002/M-18-714</u>		Order Date:	<del>12-15-15</del>



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

Section No. 9  
~~2nd-3rd~~ 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. Code Compliance. 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. [Intentionally Omitted] Project Completion. 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 achieve Mechanical Completion of the project within the later of twenty-four (24) months from August 6, 2015 or the Company finding that the application is Expedited Ready. 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. Day-for-day extensions will also be applied to the extent the application is the subject of an Independent Engineer review (Section 9, Sheets 68.11-68.13) or to the extent it is directly delayed as the result of an Independent Engineer review for another application in the same Study Queue.~~

E. The ADDITIONAL TERMS AND CONDITIONS set forth in tariff Section 9, Sheet Nos. 68 through 68.16, fully apply ~~if the application that is the subject of this Agreement is not subject to the MN DIP. The ADDITIONAL TERMS AND CONDITIONS set forth in tariff Section 9, Sheet Nos. 68.17 through 68.21, fully apply if the application that is the subject of this Agreement is subject to the MN DIP.~~

(Continued on Sheet No. 9-776-4)

Date Filed:	<del>12-01-16</del>	By: Christopher B. Clark	Effective Date:	<del>09-06-16</del>
		President, Northern States Power Company, a Minnesota corporation		
Docket No.	<del>E002/M-13-</del>		Order Date:	<del>09-06-16</del>
	<del>867E002/M-18-714</del>			

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

Section No. 9  
Original Sheet No. 76.1

~~6. Community Solar Garden Requirements. (Continued)~~

~~The 24-month period shall be tolled day-for-day for a project application that, in the Company's determination, has suffered a Force Majeure event prior to Mechanical Completion. For purposes of this section, Force Majeure means: any act of God, act of the public enemy, war, insurrection, riot, fire, storm or flood, explosion, breakage or accident to machinery or equipment, or any other cause beyond a Party's control, except that a local government moratorium to issuing a permit may extend the 24-month period for no more than an additional 6 months. Failure to seek a permit, delay in seeking a permit, or permit processing time not subject to a moratorium is not included in this extension. An event of Force Majeure does not include an act of negligence or intentional wrongdoing.~~

~~If Mechanical Completion is not achieved 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 intends 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, Sheet Nos. 68 through 68.16, fully apply if the application that is the subject of this Agreement is not subject to the MN DIP. The ADDITIONAL TERMS AND CONDITIONS set forth in tariff Section 9, Sheet Nos. 68.17 through 68.21, fully apply if the application that is the subject of this Agreement is subject to the MN DIP.~~

**CANCELLED**

~~(Continued on Sheet No. 9-77)~~

Date Filed:	<del>12-01-16</del>	By: Christopher B. Clark President, Northern States Power Company, a Minnesota corporation	Effective Date:	<del>09-06-16</del>
Docket No.	<del>E002/M-13-</del> <u>867E002/M-18-714</u>		Order Date:	<del>09-06-16</del>

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

Section No. 9  
~~Original~~1st Revised Sheet No. 77

6. Community Solar Garden Requirements. (Continued)

F. Annual Report. 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. Audits. 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. ~~[Intentionally Omitted]Application Fee. 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. ~~[Intentionally Omitted]Deposit. 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. Participation Fee. 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)

Date Filed: 09-30-13 By: David M. Sparby/Christopher B. Clark Effective Date: 09-17-14  
President, and CEO of Northern States Power Company, a Minnesota corporation  
Docket No. E002/M-13-86718-714 Order Date: 09-17-14

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

Section No. 9  
~~Original~~1st Revised Sheet No. 87

15.A. Miscellaneous. The provisions of this par. 15.A. only apply to those applications that are not subject to the MN DIP. 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

15.B. Miscellaneous. The provisions of this par. 15.B. only apply to those applications that are subject to the MN DIP. The following provisions in the MN DIA 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 MN DIA uses the term "Interconnection Customer", this shall mean the Community Solar Garden Operator for purposes of the present Contract, and where it uses the term "Area EPS Operator" it shall mean the Company. Where the MN DIA uses the term "Agreement", this shall mean this Contract for purposes of the present Contract. References to MN DIA sections below also includes all associated sub-sections

- A. Force Majeure – MN DIA Section 7.6
- B. Notices – MN DIA Section 13.1
- C. Assignment – MN DIA Section 7.1
- D. Non-Waiver – MN DIA Section 12.4
- E. Governing Law – MN DIA Section 12.1
- F. Amendment or Modification – MN DIA Section 12.2
- G. Entire Agreement – MN DIA Section 12.5
- H. Confidential Information – MN DIA Section 9
- I. Non-Warranty – MN DIA Section 7.3
- J. No Partnership – MN DIA Section 12.7
- K. Severability – MN DIA Section 12.8
- L. Subcontractors – MN DIA Section 12.11
- M. Inclusion of Tariffs – MN DIA Section 12.12

(Continued on Sheet No. 9-88)

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President, and CEO of Northern States Power Company, a Minnesota corporation  
Docket No. ~~E002/M-13-~~ Order Date: ~~09-17-14~~  
~~867~~E002/M-18-714

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

Section No. 9  
~~Original~~1st Revised Sheet No. 87

~~16. Term. 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.~~

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(Continued on Sheet No. 9-88)

Date Filed: ~~09-30-13~~ By: ~~David M. Sparby~~Christopher B. Clark Effective Date: ~~09-17-14~~  
President, ~~and CEO~~ of Northern States Power Company, a Minnesota corporation  
Docket No. ~~E002/M-13-~~ Order Date: ~~09-17-14~~  
867E002/M-18-714

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

Section No. 9  
~~1st~~2nd Revised Sheet No. 88

16. Term. 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.

**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**

By: \_\_\_\_\_

By: \_\_\_\_\_

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  
Docket No. ~~E002/M-13-~~ Order Date: ~~12-15-1508-~~  
867E002/M-18-714 13-18

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~~3rd~~<sup>4th</sup> Revised Sheet No. TOC-1

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

**MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2**

**DISTRIBUTED GENERATION STANDARD  
INTERCONNECTION AND POWER PURCHASE TARIFF**

Section No. 10  
~~1st~~2nd Revised Sheet No. 73

~~Interconnection study or studies are required and shall be conducted by Company as part of the terms and conditions of service under this tariff. See the Process for Interconnection of this tariff for more information regarding these studies. See the Generation Interconnection Application Fees under the Process for Interconnection Step 1 Application (By Applicant) of this tariff. A fee for the engineering studies will also be assessed as provided for under the "Process for Interconnection Step 2 Preliminary Review" of this tariff. Any other studies and services provided pursuant to agreement between the customer and Company, may be subject to Commission review. All review and study fees are non-refundable, whether or not the customer decides to pursue the project.~~

(Continued on Sheet No. 10-74)

Date Filed: ~~11-03-10~~ By: ~~Judy M. Pifer~~Christopher B. Clark Effective Date: ~~09-01-12~~  
President, ~~and CEO~~ of Northern States Power Company, a Minnesota corporation  
Docket No. ~~E002/GR-10-974~~E002/M-18- Order Date: ~~05-14-12~~  
714

**DISTRIBUTED GENERATION STANDARD  
INTERCONNECTION AND POWER PURCHASE TARIFF (Continued)**

Section No. 10  
~~4th-5th~~ Revised Sheet No. 74

**STUDIES**

Interconnection study or studies are required and shall be conducted by Company as part of the terms and conditions of service under this tariff. ~~See the Process for Interconnection of this tariff for more information regarding these studies. See the Generation Interconnection Application Fees under the Process for Interconnection Step 1 Application (By Applicant) of this tariff. A fee for the engineering studies will also be assessed as provided for under the "Process for Interconnection Step 2 Preliminary Review" of this tariff. Any other studies and services provided pursuant to agreement between the customer and Company, may be subject to Commission review. All review and study fees are non-refundable, whether or not the customer decides to pursue the project.~~

**CONTRACTS**

Customers must execute an Interconnection Agreement to provide for the interconnection of DG facilities. ~~The Interconnection Agreement form is provided in Appendix "E" of this tariff, which addresses the costs and responsibilities associated with making interconnection of the DG facility with the Company's distribution system.~~ If customer intends to sell energy and capacity to the Company, customer must also execute a Power Purchase Agreement (PPA) with the Company. The term of these agreements not subject to the MN DIP or MN DIA may be up to 20 years. Each customer DG project under this tariff will be evaluated on a customer-specific and site-specific basis, to determine eligibility, system reliability and impact on Company's transmission and distribution systems.

To qualify for a contract under this tariff, the customer must be doing one of the following: (1) Selling all of the DG energy to the Company, (2) Supplying all of the DG energy to itself, or (3) Self generating part of its needs and selling the remaining energy to the Company. The Company shall purchase all electricity generated and offered for sale to the Company by the DG facility pursuant to the terms, conditions and price schedule provided in the PPA. Under certain circumstances the customer may qualify for a Distribution Facility Credit, which shall be governed under the Interconnection Agreement.

**STANDBY SERVICE REQUIREMENTS**

As indicated above, customer may sell the DG energy to the Company or use the DG energy to serve customer's own load. There is no requirement to contract for Standby Services if all of the DG energy is sold to the Company. There is also no requirement to contract for Standby Services in cases where the customer uses the DG energy to serve their own load, provided the maximum capacity of the DG is 100 kW or less. See the Company's Standby Service Rider tariff for details concerning the provision of Standby Service.

A customer choosing to use DG to serve more than 100 kW of their own load must either contract for Standby Services under the Company's Standby Service Rider or choose to be a "physical assurance" customer. A physical assurance customer is a customer who agrees to not require standby services and has a mechanical device that ensures that standby service is not taken. The cost of the physical assurance device, is to be paid by the DG customer.

(Continued on Sheet No. 10-75)

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**MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2**

**DISTRIBUTED GENERATION STANDARD  
INTERCONNECTION AND POWER PURCHASE TARIFF  
(Continued)**

Section No. 10  
~~1st~~ 2nd Revised Sheet No. 78

**Definition of Peak Periods**

The on-peak period is defined as those 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 a Saturday, the preceding Friday will be designated a holiday. When a designated holiday occurs on a Sunday, the following Monday will be designated a holiday. The off-peak period is defined as all other hours not designated as on-peak hours.

Summer months are July and August; Non-Summer months are all other months. Definition of on-peak and off-peak periods is subject to change with change in Company's system operating characteristics or electric energy market standards.

**TERMS AND CONDITIONS OF SERVICE**

1. Electric service provided by Company to customer at the same site during the same billing period shall be billed in accordance with the appropriate retail electric rates; thus, supplemental load service shall be provided to the DG customer through the Company's base electric rates. Company shall pay customer each month according to the applicable Energy and Capacity Purchase Payments and any applicable Distribution Facility Credit, established in the contracts under this tariff.
2. The customer must enter an Interconnection Agreement with the Company for the interconnection and parallel operation of any qualifying DG facility under this tariff.
3. In order to receive energy and capacity payments, the customer must execute a Power Purchase Agreement with Company.
4. Customer is responsible for any applicable study fees and interconnection costs. The customer must pay all such costs as specified in the Interconnection Agreement.
5. The customer shall be responsible for all costs associated with the installation, operation, and maintenance of the facility.
6. Company may assess a monthly fee for metering and billing the Energy and Capacity Purchase Payments and any applicable Distribution Facility Credit transactions. Typical costs for meter reading and billing are shown below. For most DG installations, two meters are required. The appropriate metering options available are determined on a project-by-project basis. ~~For further information, please see "Generation, Metering, Monitoring and Control" beginning on tariff sheet 147 of the Interconnection Process for Distributed Generation Systems.~~
7. The voltage and phase of customer's distributed generation facility must be consistent with existing retail service configuration and is approved by the Company in accordance with the Company's interconnection requirements.
8. ~~For interconnections not subject to the MN DIP or MN DIA, the~~ customer must maintain a power factor close to unity as possible or as specified in the "Power Factor" provision of the "Distributed Generation Interconnection Requirements" section of this tariff. ~~For interconnections that are subject to the MN DIP, the Power Factor shall~~

(Continued on Sheet No. 10-79)

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18-714

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

**MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2**

**DISTRIBUTED GENERATION STANDARD  
INTERCONNECTION AND POWER PURCHASE TARIFF  
(Continued)**

Section No. 10  
~~1st~~<sup>2nd</sup> Revised Sheet No. 78

be consistent with the MN Technical Requirements and MN DIA, including the Operating Agreement attached to the MN DIA.

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(Continued on Sheet No. 10-79)

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**MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2**

**DISTRIBUTED GENERATION STANDARD  
INTERCONNECTION AND POWER PURCHASE TARIFF  
(Continued)**

Section No. 10  
~~2nd~~3rd Revised Sheet No. 79

**TERMS AND CONDITIONS OF SERVICE (Continued)**

9. Customer's DG facility shall not commence parallel operation until it has established, to the satisfaction of the Company that it complies with and has met the standards set forth in any applicable Commission or the Midwest Reliability Organization (MRO) or any successor organization rules, as well as the requirements specified in the "*Distributed Generation Interconnection Requirements*" or MN DIP, as applicable section of this tariff. Where the MN DIP applies, the provisions of the MN Technical Requirements and MN DIA (with its attachments) shall apply. If the interconnecting device is not Type-Certified or if multiple devices are operated in parallel at the facility, review and approval of the interconnecting devices and protection systems by a Professional Electrical Engineer, registered in the State of Minnesota, is required. +  
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10. In addition to an automatic fail-safe device, the Company will require an accessible, company approved disconnection device having the capability of isolating the energy generated by each distributed generation facility. This device may be operated by either party at any time in order to maintain safe operating conditions. +  
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11. The DG customer shall be responsible for any additional expense not covered in the terms and conditions of the Interconnection Agreement, which may be incurred by the Company on behalf of the customer or as a result of the customer's DG facility. The range of typical DG interconnection costs is shown below along with typical modifications and upgrades included in the interconnection cost.
12. During the term of the Interconnection Agreement the DG customer shall maintain 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 DG facility. The amount of such insurance coverage shall be as specified in the Interconnection Agreement.
13. The Company is under no obligation to revise or transfer customer's existing Qualifying Facility (QF) contract(s) still in effect to an alternative PPA, which is subsequently made available. +  
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14. In order to be eligible to receive a capacity payment, the facility must meet the requirements for capacity accreditation in the Midwest Reliability Organization (MRO) or any successor organization, as specified in the rules and procedures of the Midwest Reliability Organization (MRO) or any successor organization.
15. The Company shall have the right to seek capacity accreditation through its own effort with its affiliated power pool and customer will provide reasonable cooperation.
16. The Company shall recover energy costs associated with these purchases pursuant to the provisions of the Fuel Clause Rider.

(Continued on Sheet No. 10-80)

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**MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2**

**DISTRIBUTED GENERATION STANDARD  
 INTERCONNECTION AND POWER PURCHASE TARIFF  
 (Continued)**

Section No. 10  
~~1st~~ 2nd Revised Sheet No. 80

**TYPICAL COSTS FOR METER READING AND BILLING**

Meter Reading	\$1.00
Billing	\$5.00
Total Monthly Cost	\$6.00

Notes:

1. For interconnections not subject to MN DIP and MN DIA, Ssee Table 5a, Section 10, Sheet No. 148 of Tariff for further information on metering.
2. Costs in the table do not include the initial cost of metering and installation costs.
3. Costs in the table do not include services and metering provided to the customer under a traditional, non-DG tariffed rate.
4. Additional customer requested meters, special configurations, or severe access problems that are not covered in the tariff are not included in the table and may result in higher monthly fees.
5. Meter costs provided are on a per meter basis.
6. Billing costs provided are on a per billing account basis.
7. Arrangements not covered in the tariff are not included in the table and may result in higher monthly fees.
8. The above does not include monthly telemetry costs.

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**Range of Typical DG Interconnection Costs**

DG Size Range	Limited Parallel	Extended Parallel
0 - <40 kW	\$300 to \$10,000	\$300 to \$10,000
40 - 250 kW	\$500 to \$15,000	\$500 to \$20,000
>250 – 1000 kW	\$2,000 to \$25,000	\$2,000 to \$150,000
>1 MW	\$5,000 to \$35,000	\$5,000 to \$1,000,000

Notes:

1. All costs are scoping estimates. Actual circumstances and detailed studies, as specified in the tariff, will determine the actual requirements and costs.
2. Costs provided for Limited Parallel interconnections assume no intentional power flowing to Xcel Energy and the parallel operation is of limited duration such as during a closed transition load transfer.
3. Cost provided for > 1 MW does not include telemetry costs.
4. The minimum cost value entails a simple interconnection with no system modifications required.
5. The maximum cost value provides a high-end estimate that includes significant system modifications. The values assume that the generation facility is of a size that is easily accommodated by an existing system. Generation facilities that are large compared to the “strength” (load capacity and fault current capability) of the distribution system can require extensive system upgrades far in excess of the cost values provided in the table.
6. Costs provided do not include additional expenses imposed by local government requirements. For example, a local ordinance that requires all new distribution to be built underground may result in significant costs beyond those represented in the table.

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(Continued on Sheet No. 10-81)

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**State of Minnesota  
Interconnection Process  
for Distributed Generation Systems**

**INTRODUCTION**

This document (Sheet Nos. 10-83 through 10-134.2) has been prepared to explain the process established in the State of Minnesota, to interconnect a Generation System with Xcel Energy for applications submitted prior to June 17, 2019 that have been deemed complete no later than August 16, 2019. This document covers the interconnection process for all types of Generation Systems which are rated 10MW's or less of total generation Nameplate Capacity; are planned for interconnection with Xcel Energy; are not intended for wholesale transactions and aren't anticipated to affect the transmission system. This document does not discuss the interconnection Technical Requirements, which are covered in the "**State of Minnesota Distributed Generation Interconnection Requirements**" document (at Sheet Nos. 10-135 through 10-159.6). This other interconnection requirements document also provides definitions and explanations of the terms utilized within this document. To interconnect a Generation System with Xcel Energy, there are several steps that must be followed. This document outlines those steps and the Parties' responsibilities. At any point in the process, if there are questions, please contact the Generation Interconnection Coordinator at Xcel Energy. Since this document has been developed to provide an interconnection process which covers a very diverse range of Generation Systems, the process appears to be very involved and cumbersome. For many Generation Systems the process is streamlined and provides an easy path for interconnection.

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The promulgation of interconnection standards for Generation Systems by the Minnesota Public Utilities Commission (MPUC) must be done in the context of a reasonable interpretation of the boundary between state and federal jurisdiction. The Federal Energy Regulatory Commission (FERC) has asserted authority in the area, at least as far as interconnection at the transmission level is concerned. This, however, leaves open the question of jurisdiction over interconnection at the distribution level. The Midwest Independent System Operator's (MISO) FERC Electric Tariff, (first revised volume 1, August 23,2001) Attachment R (Generator Interconnection Procedures and Agreement) states in section 2.1 that "Any existing or new generator connecting at transmission voltages, sub-transmission voltages, or distribution voltages, planning to engage in the sale for resale of wholesale energy, capacity, or ancillary services requiring transmission service under the Midwest ISO OATT must apply to the Midwest ISO for interconnection service". Further in section 2.4 it states that "A Generator not intending to engage in the sale of wholesale energy, capacity, or ancillary services under the Midwest ISO OATT, that proposes to interconnect a new generating facility to the distribution system of a Transmission Owner or local distribution utility interconnected with the Transmission System shall apply to the Transmission Owner or local distribution utility for interconnection". It goes on further to state "Where facilities under the control of the Midwest ISO are affected by such interconnection, such interconnections may be subject to the planning and operating protocols of the Midwest ISO...."

Through discussions with MISO personnel and as a practical matter, if the Generation System Nameplate Capacity is not greater in size than the minimum expected load on the distribution substation, that is feeding the proposed Generation System, and Generation System's energy is not being sold on the wholesale market, then that installation may be considered as not "affecting" the transmission system and the interconnection may be considered as governed by this process. If the Generation System will be selling energy on the wholesale market or the Generation System's total Nameplate Capacity is greater than the expected distribution substation minimum load, then the Applicant shall contact MISO (Midwest Independent System Operator) and follow their procedures.

(Continued on Sheet No. 10-84)

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State of Minnesota

Distributed Energy Resources Interconnection Process

(MN DIP)

v.2.3

(As adopted for Northern States Power Company)

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**Glossary of Terms**

**Attachment 1: Pre-Application Report Request Form**

**Attachment 2: Simplified Application Form**

**Exhibit A – Terms and Conditions for Interconnecting an Inverter-Based DER No Larger than 20 kW**

**Exhibit B – For Energy Storage**

**Exhibit C – Certificate of Completion**

**Attachment 3: Interconnection Application Form**

**Attachment 4: Certification Codes and Standards**

**Attachment 5: Certification of Distributed Energy Resource Equipment**

**Attachment 6: System Impact Study Agreement**

**Attachment 7: Facilities Study Agreement**

**Attachment 8: Flow Charts**

(Continued on Sheet No. 10-165)

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**Foreword**

The Minnesota Public Utilities Commission is charged by Minnesota Statute §216B.1611 to establish generic, statewide standards for the interconnection and parallel operation of distributed energy resources<sup>1</sup> of no more than 10 MW. These updated Minnesota interconnection standards strive to:

- 1) Establish a practical, efficient interconnection process that is easily understandable for everyone involved;
- 2) Maintain a safe and reliable electric system at fair and reasonable rates;
- 3) Give maximum possible encouragement of distributed energy resources consistent with protection of the ratepayers and the public;
- 4) Be consistent statewide and incorporate newly revised national standards;
- 5) Be technology neutral and non-discriminatory.

At a minimum, these standards must:

- 1) To the extent possible, be consistent with industry and other federal and state operational and safety standards;
- 2) Provide for the low-cost, safe, and standardized interconnection of distributed energy resources;
- 3) Take into account differing system requirements and hardware; as well as, the overall demand load requirements of individual utilities;
- 4) Allow for reasonable terms and conditions, consistent with the cost and operating characteristics of the various technologies, so that a utility can reasonably be assured of the reliable, safe and efficient operation of the interconnected equipment;
- 5) Establish a standard interconnection agreement that sets forth the contractual terms under which a company and customer agree that one or more facilities may be interconnected with the company's utility system; and standard applications for interconnection and parallel operation with the utility system.

This standards document is modelled after the Federal Energy Regulatory Commission's Small Generator Interconnection Process (FERC SGIP), and explains the process to interconnect Distributed Energy Resources for parallel operation with the Area Electrical Power System (Area EPS); including templates for applications and study agreements. There are three companion documents: 1) Minnesota Distributed Energy Resource Interconnection Agreement (MN DIA); 2) Minnesota Distributed Energy Resource Technical Interconnection and Interoperability Requirements (MN Technical Requirements or Minnesota Technical Requirements)<sup>2</sup>; and until updated or replaced 3) Attachment 6 Rates from the statewide interconnection standards adopted in 2004 (September 28, 2004 Order in E-999/CI-01-1023.)

<sup>1</sup> "Distributed Energy Resources" (DER) is emerging terminology used to capture both traditional "distributed generation" and storage technologies; however, this term is not currently defined in Minnesota statute or rules, and at times the Commission applies it to a broader category that includes demand-side management (controlling load like air conditioners or water heaters) and, in some cases, even energy efficiency and electric vehicles. For this document, the definition is consistent with IEEE 1547 and limited to generation and storage, and does not include DER that behave solely as load.

<sup>2</sup> See MN DIP Attachment 4: Certification Codes and Standards regarding statewide technical requirements in the interim between adoption of MN DIP and adoption of updated MN Technical Requirements.

(Continued on Sheet No. 10-166)

**Section 1. Application**

**1.1 Applicability**

**1.1.1** The Minnesota Distributed Energy Resources Interconnection Process (MN DIP) applies to any Distributed Energy Resource (DER) no larger than 10 MW interconnecting to, and operating in parallel with, an Area EPS distribution system in Minnesota.<sup>1</sup> See Minnesota Technical Requirements for more detail on what constitutes parallel operation. For the applicable interconnection process for DERs larger than 10 MW interconnected to, and operated in parallel with, an Area EPS distribution system in Minnesota, contact the Area EPS for details on the applicable interconnection process. The exception is Distributed Energy Resource interconnections that are subject to Federal Energy Regulatory Commission (FERC) jurisdiction.<sup>2</sup>

**1.1.1.1** An application to interconnect a certified<sup>3</sup>, inverter-based DER no larger than 20 kilowatts (kW) shall be evaluated under the Section 2 Simplified Process.

**1.1.1.2** An application to interconnect a DER shall be evaluated under the Section 3 Fast Track Process if the eligibility requirements of Section 3.1 Applicability

**1.1.1.3** An application to interconnect a DER that does not meet the Simplified Process or Fast Track Process eligibility requirements, or does not pass the review as described in either process, shall be evaluated under the Study Process.

**1.1.1.4** Attachment 8 contains flow charts that provide an overview of the Simplified Process, the Fast Track Process, and the Study Process.

**1.1.1.5** Prior to submitting an Interconnection Application, the Interconnection Customer may ask the Area EPS Operator's Interconnection Coordinator whether the proposed interconnection is subject to these procedures. The Area EPS Operator shall respond within fifteen (15) Business Days.

<sup>1</sup> Minnesota Statute §216B.1611

<sup>2</sup> The Federal Regulation and Development of Power Act (16 U.S. Code Subchapter II) outlines federal regulation of wholesale sales and transmission in interstate commerce and state regulation of generation, distribution, and retail sales.

<sup>3</sup> See Attachment 4 and Attachment 5 for certification criteria.

(Continued on Sheet No. 10-167)

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- 1.1.2 Capitalized terms used herein shall have the meanings specified in the Glossary of Terms or the body of these procedures. All references to DER Nameplate Rating or maximum capacity as described in 5.14.3<sup>1</sup> herein are in alternating current (AC).
- 1.1.3 Neither these procedures nor the requirements included hereunder unless by mutual agreement of the Area EPS Operator and the Interconnection Customer apply to DERs interconnected, approved for interconnection or Interconnection Applications submitted to by the Area EPS Operator prior to June 17, 2019, and later deemed complete (provided these applications are later deemed complete following any applicable revisions no later than 60 days following this date). These procedures and the requirements hereunder shall apply to applications to modify existing DERs if the application to modify is submitted on or after June 17, 2019.
- 1.1.3.1 Nothing in this MN DIP affects an Interconnection Customer's Queue Position assigned before the effective date of this MN DIP. The Parties agree to complete work on any interconnection study agreement executed prior to the effective date of this MN DIP in accordance with the terms and conditions of that interconnection study agreement. Any new studies or other additional work will be completed pursuant to this MN DIP.
- 1.1.4 Infrastructure security of electric system equipment and operations and control hardware and software is essential to ensure day-to-day reliability and operational security. All public utilities are expected to meet basic standards for electric system infrastructure and operational security, including physical, operational, and cyber-security practices.
- 1.1.5 References in these procedures to an Interconnection Agreement are to the Uniform Statewide Contract or Minnesota Distributed Energy Resource Interconnection Agreement (MN DIA).
- 1.1.5.1 The Uniform Statewide Contract (Minn. R. 7835.9910) replaces the need to use the MN DIA if all of the following conditions are met and the Interconnection Customer does not request the MN DIA:
- 1.1.5.1.1 Certified equipment
- 1.1.5.1.220 kWac or less of a qualifying DER Capacity
- 1.1.5.1.3No Area EPS system modifications are required to accommodate the DER
- 1.1.5.1.4 Signed Uniform Statewide Contract Attachment 1: Pre-Application Report Request Form

<sup>1</sup> See Minnesota Technical Requirements for more detail on when to apply Nameplate Rating or a limited maximum capacity as defined in 5.14.3.

(Continued on Sheet No. 10-168)

**MINNESOTA DISTRIBUTED ENERGY RESOURCES  
INTERCONNECTION PROCESS (MN DIP)  
(Continued)**

Section No. 10  
Original Sheet No. 168

Requests for an Interconnection Pre-Application Report shall include the information identified in Sections 1.4.1.1 through 1.4.1.8 of the Minnesota Distributed Energy Resource Interconnection Process (MN DIP) (and as provided in the fields below) to clearly and sufficiently identify the location of the proposed Point of Common Coupling and relevant project details.

Additionally, a non-refundable processing fee of \$300 is required as specified in Section 1.4.1 of the MN DIP.

Upon receipt of a complete Request Form (including site map) and processing fee, the Area EPS Operator shall provide a report containing as much of the data described in Section 1.4.2 as is pre-existing and available within 15 business days. A Pre-Application Report request does not obligate the Area EPS Operator to conduct a study or other analysis of the proposed project if data is not available.

1. Requestor Contact Information:

Name: \_\_\_\_\_  
Company Name (if applicable): \_\_\_\_\_  
Street Address: \_\_\_\_\_  
City/State/Zip: \_\_\_\_\_  
Phone Number: \_\_\_\_\_  
Email Address: \_\_\_\_\_

2. Project Information:

a) Project Name: \_\_\_\_\_

b) Planned Equipment:

DER Nameplate Rating: \_\_\_\_\_ kW  
DER Type: Inverter based Other \_\_\_\_\_  
DER Number of Phases: Single Three  
Service Voltage (120/240 V, 277/480 V, etc.) : \_\_\_\_\_ V  
Stand-alone Generator (no onsite load)? Yes No  
Existing DER? Yes No  
Location of Existing DER (include county):  
\_\_\_\_\_

c) Proposed Point of Common Coupling:

Note: The proposed Point of Common Coupling shall be defined by all or some combination of the below information, enough to clearly identify the location of the Point of Common Coupling.

Street Address: \_\_\_\_\_  
City/State/Zip Code: \_\_\_\_\_  
County: \_\_\_\_\_  
Cross streets: \_\_\_\_\_  
Latitude (in degrees/minutes/seconds or 6 decimal places):  
\_\_\_\_\_  
Longitude: \_\_\_\_\_  
Meter number: \_\_\_\_\_  
Utility equipment number (e.g. pole number): \_\_\_\_\_  
Other identifying information: \_\_\_\_\_  
\_\_\_\_\_

(Continued on Sheet No. 10-169)

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d) An attached Site Map is required that shows the following:

- True north
- Proposed project location, including general area of project
- Proposed service point location
- Major roads, streets and/or highways

3. Requestor Signature:

I understand that the confidentiality provisions of MN DIP Section 5.9 apply to the contents of the Pre-Application Report. The MN DIP Section 5.9, states in part as follows:

*“Each Party shall hold in confidence and shall not disclose Confidential Information, to any person (except employees, officers, representatives and agents, who agree to be bound by this section). Confidential Information shall be clearly marked as such on each page or otherwise affirmatively identified. ... Each Party shall employ at least the same standard of care to protect Confidential Information obtained from the other Party as it employs to protect its own Confidential Information. ... Each Party is entitled to equitable relief, by injunction or otherwise, to enforce its rights under this provision to prevent the release of Confidential Information without bond or proof of damages, and may seek other remedies available at law or in equity for breach of this provision.”*

I understand that 1) the existence of “Available Capacity” in no way implies that an interconnection up to this level may be completed without impacts since there are many variables studied as part of the interconnection review process, 2) the distribution system is dynamic and subject to change and 3) data provided in the Pre-Application Report may become outdated and not useful at the time of submission of the complete Interconnection Request.

Name (type or print): \_\_\_\_\_

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

Pre-Application Report requests shall be submitted with attachments to the Company through its online portal available at [www.xcelenergy.com](http://www.xcelenergy.com) or other applicable URL. Only if the online portal is unavailable submit to Distributed Energy Resources at [MNDER@xcelenergy.com](mailto:MNDER@xcelenergy.com)

Fees shall be submitted online through the online application portal or Xcel Energy, Attn: Distributed Energy Resources, at P.O.Box 59 Minneapolis MN 55440-0059.

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1.2 Online Applications and Electronic Submission

1.2.1 The Area EPS Operator shall allow Pre-Application Report requests and Interconnection Applications to be submitted electronically; such as, through the Area EPS Operator's website or via email. The Area EPS Operator may allow the Interconnection Agreement to be submitted electronically.

1.2.1.1 The Area EPS Operator may allow for electronic signatures to be used for the Pre-Application Report request, Interconnection Application and related agreements, including the Interconnection Agreement, and forms.

1.2.2 The Area EPS Operator shall dedicate a page on its website or direct customers to a website with generic information on the MN DIP that the Area EPS Operator finds comports with its process. The relevant information that shall be available to the Interconnection Customer via a website includes:

1.2.2.1 The MN DIP and attachments in an electronically searchable format;

1.2.2.2 The Area EPS Operator's Interconnection Application and all associated forms in a format that allows for electronic entry of data;

1.2.2.3 The Uniform Statewide Contract and the Area EPS Operator's tariff version of the MN DIA;

1.2.2.4 Example documents; including, at a minimum, an example one-line diagram with required labels; and

1.2.2.5 Contact information for the Area EPS Operator's DER interconnection coordinator(s) and submission of Interconnection Applications, including email and phone number.

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1.3 Communications

1.3.1 The Area EPS Operator shall designate a DER interconnection coordinator(s) and this person or persons shall serve as a single point of contact from which general information on the application process and on Affected System(s) can be obtained through informal request from the Interconnection Customer presenting a proposed project for a specific site. The name, telephone number, and e-mail address of such contact employee or office shall be made available on the Area EPS Operator's Internet website in accordance with section 1.2.2.5. The Area EPS Operator may have several DER Interconnection Coordinators assigned. The DER Interconnection Coordinator shall be available to provide coordinator assistance with the Interconnection Customer, but is not responsible to directly answer or resolve all of the issues involved in review and implementation of the interconnection process and standards. Upon request, electric system information provided to the Interconnection Customer should include relevant system study results, interconnection studies, and other materials useful to an understanding of an interconnection at a particular point on the Area EPS Operator's System, to the extent such provision does not violate the privacy policies of the Commission, confidentiality provisions of prior agreements or critical infrastructure requirements. This listing does not include a Pre-Application Report under Section 1.4. The Area EPS Operator shall comply with reasonable requests for such information.

1.3.2 The Interconnection Customer may designate, on the Interconnection Application or in writing after the Application has been submitted, an Application Agent to serve as the single point of contact to coordinate with the DER Interconnection Coordinator on their behalf. Designation of an Application Agent does not absolve the Interconnection Customer from signing interconnection documents and the responsibilities outlined in the MN DIP and Interconnection Agreement.

1.3.3 Engineering Communication: Upon request of either party or the Commission, for the purpose of exchanging information regarding an active Interconnection Application, the Area EPS Operator and the Interconnection Customer shall each identify one point of contact with technical expertise for their organizations.

1.4 Pre-Application Report

1.4.1 In addition to the information described in section 1.3.1, which may be provided in response to an informal request, an Interconnection Customer may submit a formal written request form along with a non-refundable fee of up to \$300 for a Pre-Application Report on a proposed project at a specific site. The Area EPS Operator shall provide the data described in section 1.4.2 to the Interconnection Customer within fifteen (15) Business Days of receipt of the completed request form and payment of the up to \$300 fee. The Pre-Application Report produced by the Area EPS Operator is non-binding, does not confer any rights, and the Interconnection Customer must still successfully apply to interconnect to the Area EPS Operator's system. The written Pre-Application Report request form shall include the information in sections 1.4.1.1 through 1.4.1.8 below to clearly and sufficiently identify the location of the proposed Point of Common Coupling.

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- 1.4.1.1 Project contact information, including name, address, phone number, and email address.
- 1.4.1.2 Project location (street address with nearby cross streets and town). Interconnection Customer may choose to also provide an aerial map or GPS coordinates for increased accuracy.
- 1.4.1.3 Meter number, pole number, or other equivalent information identifying proposed Point of Common Coupling, if available.
- 1.4.1.4 DER type(s) (e.g., solar, wind, combined heat and power, storage, solar + storage, etc.).
- 1.4.1.5 Nameplate Rating (alternating current kW).
- 1.4.1.6 Single or three phase DER configuration.
- 1.4.1.7 Stand-alone generator (no onsite load, not including station service – Yes or No?).
- 1.4.1.8 Is new service requested? Yes or No? If there is existing service, include the customer account number, site minimum and maximum current or proposed electric loads in kW (if available) and specify how the load is expected to change.
- 1.4.2 Using the information provided in the Pre-Application Report request form in section 1.4.1, the Area EPS Operator will identify the substation/area bus, bank or circuit likely to serve the proposed Point of Common Coupling. This selection by the Area EPS Operator does not necessarily indicate, after application of the screens and/or study, that this would be the circuit the project ultimately connects to. The Interconnection Customer must request additional Pre-Application Reports if information about multiple Points of Common Coupling is requested. Subject to 1.4.3, the Pre-Application Report will include the following information:
  - 1.4.2.1 Total capacity (in megawatts (MW)) of substation/area bus, bank or circuit based on normal or operating ratings likely to serve the proposed Point of Common Coupling.
  - 1.4.2.2 Existing aggregate generation capacity (in MW) interconnected to a substation/area bus, bank or circuit (i.e., amount of generation online) likely to serve the proposed Point of Common Coupling.
  - 1.4.2.3 Aggregate queued generation capacity (in MW) for a substation/area bus, bank or circuit (i.e., amount of generation in the queue) likely to serve the proposed Point of Common Coupling.

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- 1.4.2.4 Available capacity (in MW) of substation/area bus or bank and circuit likely to serve the proposed Point of Common Coupling (i.e., total capacity less the sum of existing aggregate generation capacity and aggregate queued generation capacity).
- 1.4.2.5 Substation nominal distribution voltage and/or transmission nominal voltage if applicable.
- 1.4.2.6 Nominal distribution circuit voltage at the proposed Point of Common Coupling.
- 1.4.2.7 Approximate circuit distance between the proposed Point of Common Coupling and the substation.
- 1.4.2.8 Relevant line section(s) actual or estimated peak load and minimum load data, including daytime minimum load as described in section 3.4.4.1 below and absolute minimum load, when available.
- 1.4.2.9 Whether the Point of Common Coupling is located behind a line voltage regulator.
- 1.4.2.10 Number and rating of protective devices and number and type (standard, bi-directional) of voltage regulating devices between the proposed Point of Common Coupling and the substation/area. Identify whether the substation has a load tap changer.
- 1.4.2.11 Number of phases available on the Area EPS medium voltage system at the proposed Point of Common Coupling. If a single phase, distance from the three-phase circuit.
- 1.4.2.12 Limiting conductor ratings from the proposed Point of Common Coupling to the distribution substation.
- 1.4.2.13 Whether the Point of Common Coupling is located on a spot network, grid network, or radial supply.
- 1.4.2.14 Based on the proposed Point of Common Coupling, existing or known constraints such as, but not limited to, electrical dependencies at that location, short circuit interrupting capacity issues, power quality or stability issues on the circuit, capacity constraints, or secondary networks.
- 1.4.3 The Pre-Application Report need only include existing data. A request for a Pre-Application Report does not obligate the Area EPS Operator to conduct a study or other analysis of the proposed DER in the event that data is not readily available. If the Area EPS Operator cannot complete all or some of a Pre-Application Report due to lack of available data, the Area EPS Operator shall provide the Interconnection Customer with a Pre-Application Report that includes the data that is available. The confidentiality provisions found in 5.9 apply to Pre-Application Reports.

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**MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2**

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**MINNESOTA DISTRIBUTED ENERGY RESOURCES  
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1.4.4 The provision of information on "available capacity" pursuant to section 1.4.2.4 does not imply that an interconnection up to this level may be completed without impacts since there are many variables studied as part of the interconnection review process. The distribution system is dynamic and subject to change, and data provided in the Pre-Application Report may become outdated at the time of the submission of the complete Interconnection Application. Notwithstanding any of the provisions of this section, the Area EPS Operator shall, in good faith, include data in the Pre-Application Report that represents the best available information at the time of reporting.

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1.5 Interconnection Application

1.5.1 The Interconnection Customer shall submit an Interconnection Application to the Area EPS Operator, together with the processing fee or deposit specified in the Interconnection Application. Additional fees or deposits for the interconnection process shall not be required, except as otherwise specified in these procedures. Application form templates are available in Attachment 2: Simplified Application Form and Attachment 3. The specific fees for Simplified Process, Fast Track Process and Study Process are:

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- 1.5.1.1 The processing fee for the Simplified Process Application shall be \$100.
- 1.5.1.2 For certified, Fast Track Process eligible applications, the processing fee shall be \$100 + \$1/kW. For non-certified Fast Track Process eligible applications, the processing fee shall be \$100 + \$2/kW.
- 1.5.1.3 For an Interconnection Application that is not eligible or does not apply for Simplified Process or Fast Track Process, the processing fee shall be a down payment of \$1,000 plus \$2.00 per kW toward the deposit required for the study(s) under Section 4 Study Process.
- 1.5.1.4 Interconnection Applications shall contain a single line diagram and site diagram. A signature from a professional engineer licensed in Minnesota shall be required when: 1) Certified equipment is greater than 250 kW; or 2) non-certified equipment is greater than 50 kW.

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1.5.2 The Interconnection Application shall be date- and time-stamped upon initial and, if necessary, resubmission receipt. Unless Section 2 Simplified Process applies, the Interconnection Customer shall be notified of receipt by the Area EPS Operator within three (3) Business Days of receiving the Interconnection Application. The Area EPS Operator shall notify the Interconnection Customer within ten (10) Business Days of the receipt of the Interconnection Application as to whether the Interconnection Application is complete or incomplete. If the Interconnection Application is incomplete, the Area EPS Operator shall provide along with the notice that the Interconnection Application is incomplete, a written list detailing all information that must be provided to complete the Interconnection Application. The Interconnection Customer will have ten (10) Business Days after receipt of the notice to submit all of the listed information. If the Interconnection Customer does not provide the listed information within the deadline the Interconnection Application will be deemed withdrawn. An Interconnection Application will be deemed complete upon submission of documents adhering to Minnesota Technical Requirements and containing the listed information to the Area EPS Operator. The Area EPS Operator will have five (5) Business Days to review the additional material and notify the Interconnection Customer if the Interconnection Application is deemed complete. The date-and time- stamp of receipt of a complete Interconnection Application shall be accepted as the qualifying date for the purposes of establishing queue position as described in section 1.8.

1.6 Modification of the Interconnection Application or a DER Interconnection

1.6.1 At any time after an Interconnection Application is deemed complete, including after the receipt of Fast Track, supplemental review, system impact study, and/or facilities study results, the Interconnection Customer, the Area EPS Operator, or the Affected System owner may identify modifications to the planned Interconnection that may improve the costs and benefits (including reliability) of the Interconnection, and/or the ability of the Area EPS Operator to accommodate the Interconnection. The Interconnection Customer shall submit to the Area EPS Operator, in writing, all proposed modifications to any information provided in the Interconnection Application. Neither the Area EPS Operator nor the Affected System operator may unilaterally modify the Interconnection Application.

1.6.2 Within ten (10) Business Days of receipt of a proposed modification, the Area EPS Operator shall evaluate whether a proposed modification to either an Interconnection Application or an existing DER Interconnection constitutes a Material Modification. If applicable, the Area EPS Operator shall make Reasonable Effort to consult with the Affected System owner. The definition in Glossary of Terms includes examples of what does and does not constitute a Material Modification.

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1.6.2.1 If the proposed modification is determined to be a Material Modification, then the Area EPS Operator shall notify the Interconnection Customer in writing that the Customer may: 1) withdraw the proposed modification; or 2) proceed with a new Interconnection Application for such modification. The Interconnection Customer shall provide its determination in writing to the Area EPS Operator within ten (10) Business Days after being provided the Material Modification determination results. If the Interconnection Customer does not provide its determination, the Customer's Application shall be deemed withdrawn.

1.6.2.2 If the proposed modification is determined not to be a Material Modification, then the Area EPS Operator shall notify the Interconnection Customer in writing that the modification has been accepted and that the Interconnection Customer shall retain its eligibility for interconnection, including its place in the interconnection queue.

1.6.3 Any dispute as to the Area EPS Operator's determination that a modification constitutes a Material Modification shall proceed in accordance with the dispute resolution provisions in section 5.3 of these procedures.

1.6.4 Any modification to machine data, equipment configuration or to the interconnection site of the DER not agreed to in writing by the Area EPS Operator and the Interconnection Customer may be deemed a withdrawal of the Interconnection Application and may require submission of a new Interconnection Application, unless proper notification of each Party by the other as described in sections 1.6.1 and 1.6.2.

1.7 Site Control

Documentation of site control must be submitted with the Interconnection Application. Site control may be demonstrated through providing documentation showing any of the following:

1.7.1 Ownership of, a leasehold interest in, or a right to develop a site for the purpose of constructing the DER;

1.7.2 An option to purchase or acquire a leasehold site for such purpose; or

1.7.3 An exclusivity or other business relationship between the Interconnection Customer and the entity having the right to sell, lease, or grant the Interconnection Customer the right to possess or occupy a site for such purpose; or

1.7.4 For DERs utilizing the Section 2 Simplified Process, proof of site control may be demonstrated by the site owner's signature on the Interconnection Application.

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1.8 Queue Position

1.8.1 Queue Position is assigned by the Area EPS Operator based on when the Interconnection Application is deemed complete as described in section 1.5.2. The Queue Position of each Interconnection Application will be used to determine the cost responsibility for the Upgrades necessary to accommodate the interconnection. The Queue Position also establishes conditional interconnection capacity for an Interconnection Customer, contingent upon all requirements of the MN DIP and MN Technical Requirements being met.

1.8.2 Subject to the provisions in sections 1.5, 1.6, and 1.7, the DER shall retain the Queue Position assigned to their Interconnection Application throughout the review process for the purpose of determining cost responsibility and conditional interconnection capacity, including when moving through the processes covered by Section 2 Simplified Process and Section 3 Fast Track Process. Failure by the Interconnection Customer to meet the time frames outlined in these procedures or request a timeline extension shall result in a withdrawal of the Interconnection Application. The Area EPS Operator shall notify the Interconnection Customer of the missed time frame with an opportunity to request a timeline extension as defined in section 5.2.3 before the Interconnection Application is deemed withdrawn.

1.8.3 The Area EPS Operator shall maintain a single, administrative queue and may manage the queue by geographical region (i.e. feeder, substation, etc.) This administrative queue shall be used to address Interconnection Customer inquiries about the queue process. If the Area EPS Operator and the Interconnection Customer(s) agree, Interconnection Applications may be studied in clusters for the purpose of the system impact study; otherwise, they will be studied serially.

1.8.4 The Area EPS Operator shall maintain a public interconnection queue, available in a sortable spreadsheet format on its website, which it shall update on at least a monthly basis unless no changes to the spreadsheet have occurred in that month. The date of the most recent update shall be clearly indicated.

1.8.4.1 At a minimum, the following shall be included in the public interconnection queue:

1.8.4.1.1 Application or Queue Number

1.8.4.1.2 Date Application Deemed Complete

1.8.4.1.3 Interconnection Process Track (Simplified, Fast Track, or Study Process)

1.8.4.1.4 Proposed DER Capacity (Nameplate Rating unless limited as defined in 5.14.3)

1.8.4.1.5 DER type (technology)

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1.8.4.1.6 Proposed DER Location by geographic region (i.e. by feeder or line section)

1.8.4.1.7 Status of the Application's progress through the process (e.g. Initial Review, Supplemental Review, Facilities Study, Construction, Inspection, etc.)

**Section 2. Simplified Process**

2.1 Applicability

2.1.1 For Certified, inverter-based DERs with a DER Capacity of 20 kW ac or less: The Area EPS Operator shall comport with the Simplified Process, including the time frames described in that process. Simplified Process eligibility does not imply or indicate that a DER will pass the Initial Review Screens, failure to pass the screens will route the application to the Fast Track Process.

2.1.2 Certified Equipment – UL 1741 listing is a common form of DER inverter certification. See Attachment 4: Certification Codes and Standards and Attachment 5: Certification of Distributed Energy Resource Equipment.

2.2 Simplified Process Application Review Process

2.2.1 The Interconnection Customer with an eligible DER shall complete the Simplified Process Application and submit it and the application processing fee to the Area EPS Operator. A Simplified Process Application template is provided in Attachment 2: Simplified Application Form

2.2.2 Within ten (10) Business Days of receipt of the Simplified Process Application, the Area EPS Operator shall acknowledge to the Interconnection Customer receipt of the Simplified Application, evaluate the Simplified Process Application for completeness, and notify the Interconnection Customer whether the Simplified Process Application is or is not complete, and, if not, identify what material is missing. The Area EPS Operator shall to the best of its ability identify all missing material and other errors or omissions at this time. The Interconnection Customer shall submit any additional material within five (5) Business Days of the Area EPS Operator's notice. The Area EPS Operator shall have an additional five (5) Business Days to review the additional material and notify the Interconnection Customer that the Simplified Process Application is complete.

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2.2.3 The Area EPS Operator shall determine if the DER can be interconnected safely and reliably using the Initial Review Screens contained in the Fast Track Process at 3.2.1, and without construction of facilities by the Area EPS Operator. The Area EPS Operator has twenty (20) Business Days from receipt of a complete Simplified Process Application to complete this process and inform the Interconnection Customer of the results.

Unless the Area EPS Operator determines and demonstrates that the DER cannot be interconnected safely and reliably or requires construction of facilities by the Area EPS Operator, the Area EPS Operator approves the Application and provides the Interconnection Customer an executable Uniform Statewide Contract or MN DIA within five (5) days as described in sections 1.1.5.1 and 5.1.1.

If the Area EPS Operator determines the DER can be connected safely and reliably only with construction of facilities by the Area EPS Operator, the Area EPS Operator shall follow the procedures set forth in Section 3.2.2.

If the Area EPS Operator does not or cannot determine that the DER may be interconnected safely and reliably unless the Interconnection Customer is willing to consider minor modifications or further study, the Area EPS Operator shall follow the procedures set forth in Section 3.2.3.

2.3 Simplified Interconnection

2.3.1 The Interconnection Customer shall sign and return the Interconnection Agreement within thirty (30) Business Days<sup>1</sup> or may request an extension as described in Section 5.1.2 and 5.2. The Interconnection Customer must submit to the Area EPS Operator either 1) a signed copy of the Uniform Statewide Contract, if applicable, which serves as both the power purchase agreement and Interconnection Agreement; or 2) the Interconnection Customer must submit a signed Uniform Statewide Contract, if applicable, and a separate MN DIA as described in section 1.1.5.

2.3.1.1 Upon receipt of the signed Interconnection Agreement, and then after fully executing it as provided for in Section 5.1.2, the Area EPS Operator shall schedule and execute appropriate construction of facilities, if necessary, which shall be completed prior to the Interconnection Customer returning the Certificate of Completion. If construction of facilities is required by the Area EPS Operator, the Area EPS Operator shall notify the customer upon completion of construction.

<sup>1</sup> The 30-day timeframe in this step originates from Section 5.1.2 and does not represent a new step or timeframe.

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2.3.2 After installation, the Interconnection Customer returns the Certificate of Completion to the Area EPS Operator. Prior to parallel operation, and consistent with the MN DIP, the Area EPS Operator may inspect the DER for compliance with standards, which may include a witness test, and may schedule appropriate metering replacement, if necessary. The Area EPS Operator is obligated to complete the witness test, if required, within ten (10) Business Days of the receipt of the Certificate of Completion. If the Area EPS Operator does not inspect within ten (10) Business Days, the witness test is deemed waived.

2.3.3 Within three (3) Business Days of inspection or waiver of inspection, the Area EPS Operator shall notify the Interconnection Customer in writing that interconnection of the DER has permission to operate. If the witness test is not satisfactory, the Area EPS Operator has the right to disconnect the DER. The Interconnection Customer has no right to operate in parallel, except for optional testing not to exceed two hours, until permission to operate is granted by the Area EPS Operator.

### **Section 3. Fast Track Process**

#### **3.1 Applicability**

3.1.1 The Fast Track Process is available to an Interconnection Customer proposing to interconnect a DER with the Area EPS Operator's Distribution System if the DER capacity does not exceed the size limits identified in this Section, including the table below and does not qualify for the Section 2 Simplified Process. Fast Track eligibility does not imply or indicate that a DER will pass the Fast Track Initial Review Screens in 3.2.1 or the Supplemental Review screens in 3.4 below.

Fast Track eligibility for DERs is determined based upon the generator type, the size of the generator, voltage of the line, and the location of and the type of line at the Point of Common Coupling. All synchronous and induction machines must be no larger than 2 MW to be eligible for Fast Track Process consideration. The Fast Track Process size limits are included in the table below.

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<u>Fast Track Eligibility for Distributed Energy Resources</u>		
<u>Line Voltage</u>	<u>Fast Track Eligibility<sup>1</sup> Regardless of Location</u>	<u>Fast Track Eligibility for certified, inverter-based DER on a Mainline<sup>2</sup> and <math>\leq 2.5</math> Electrical Circuit Miles from Substation<sup>3</sup></u>
<u><math>&lt; 5</math> kV</u>	<u><math>\leq 500</math> kW</u>	<u><math>\leq 500</math> kW</u>
<u><math>\geq 5</math> kV and <math>&lt; 15</math> kV</u>	<u><math>\leq 1</math> MW</u>	<u><math>\leq 2</math> MW</u>
<u><math>\geq 15</math> kV and <math>&lt; 30</math> kV</u>	<u><math>\leq 3</math> MW</u>	<u><math>\leq 4</math> MW</u>
<u><math>\geq 30</math> kV and <math>\leq 69</math> kV</u>	<u><math>\leq 4</math> MW</u>	<u><math>\leq 5</math> MW</u>

3.1.2 In addition to the size threshold, the Interconnection Customer's proposed DER must meet the codes, standards, and certification requirements of Attachment 4 and Attachment 5 of these procedures, or the Area EPS Operator has reviewed the design or tested the proposed DER and is satisfied that it is safe to operate.

3.2 Initial Review

Within 15 Business Days after the Area EPS Operator notifies the Interconnection Customer it has received a complete Interconnection Application, the Area EPS Operator shall perform an initial review using the screens set forth below, notify the Interconnection Customer of the results; including copies of the analysis and data underlying the Area EPS Operator's determinations under the screens.

The technical screens listed in this section shall not preclude the Area EPS Operator from seeking approval of tools that perform screening functions using different methodology given that the analysis is aimed at preventing the same voltage, thermal and protection limitations as the initial and supplemental review screens described below.

<sup>1</sup> Synchronous and induction machines eligibility is limited to no more than 2 MW even when line voltage is greater than 15 kV.

<sup>2</sup> For purposes of this table, a Mainline is the three-phase backbone of a circuit. It will typically constitute lines with wire sizes of 4/0 American wire gauge, 266 kcmil, 336.4 kcmil, 397.5 kcmil, 477 kcmil and 795 kcmil.

<sup>3</sup> An Interconnection Customer can determine this information about its proposed interconnection location in advance by requesting a pre-application report pursuant to section 1.4.

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3.2.1 Initial Review Screens

3.2.1.1 The proposed DER's Point of Common Coupling must be on a portion of the Area EPS Operator's Distribution System.

3.2.1.2 For interconnection of a proposed DER to a radial distribution circuit, the aggregated generation, including the proposed DER, on the circuit shall not exceed 15% of the line section annual peak load as most recently measured. A line section is that portion of an Area EPS Operator's electric system connected to a customer bounded by automatic sectionalizing devices or the end of the distribution line. The Area EPS Operator may consider 100% of applicable loading (i.e., daytime minimum load for solar), if available, instead of 15% of line section peak load.

3.2.1.3 For interconnection of a proposed DER to the load side of network protectors, the proposed DER must utilize an inverter-based equipment package and, together with the aggregated other inverter-based DERs, shall not exceed the smaller of 5% of a network's maximum load or 50 kW.<sup>1</sup>

3.2.1.4 The proposed DER, in aggregation with other DERs on the distribution circuit, shall not contribute more than 10% to the distribution circuit's maximum fault current at the point on the high voltage (primary) level nearest the proposed Point of Common Coupling.

3.2.1.5 The proposed DER, in aggregate with other Distributed Energy Resources on the distribution circuit, shall not cause any distribution protective devices and equipment (including, but not limited to, substation breakers, fuse cutouts, and line reclosers), or Interconnection Customer equipment on the system to exceed 87.5% of the short circuit interrupting capability; nor shall the interconnection be proposed for a circuit that already exceeds 87.5% of the short circuit interrupting capability.

3.2.1.6 Using the table below, determine the type of interconnection to a primary distribution line. This screen includes a review of the type of electrical service provided to the Interconnecting Customer, including line configuration and the transformer connection to limit the potential for creating over-voltages on the Area EPS Operator's electric power system due to a loss of ground during the operating time of any anti-islanding function.

<u>Primary Distribution Line Type</u>	<u>Type of Interconnection to Primary Distribution Line</u>	<u>Result/Criteria</u>
<u>Three-phase, three wire</u>	<u>3-phase or single phase, phase-to-phase</u>	<u>Pass screen</u>
<u>Three-phase, four wire</u>	<u>Effectively-grounded 3 phase or Single-phase, line-to-neutral</u>	<u>Pass screen</u>

<sup>1</sup> Network protectors are protective devices used on secondary networks (spot and grid networks) to automatically disconnect its associated transformer when reverse power flow occurs. Secondary networks are most often used in densely populated downtown areas.

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3.2.1.7 If the proposed DER is to be interconnected on single-phase shared secondary, the aggregate generation capacity on the shared secondary, including the proposed DER, shall not exceed 20 kW or 65% of the transformer nameplate rating.

3.2.1.8 If the proposed DER is single-phase and is to be interconnected on a center tap neutral of a 240 volt service, its addition shall not create an imbalance between the two sides of the 240 volt service of more than 20% of the nameplate rating of the service transformer.

3.2.1.9 If the proposed DER is single-phase and is to be interconnected to a three-phase service, its Nameplate Rating shall not exceed 10% of the service transformer nameplate rating.

3.2.1.10 If the DER's Point of Common Coupling is behind a line voltage regulator<sup>1</sup>, the DER's Nameplate Rating shall be less than 250 kW.

3.2.2 If the proposed interconnection passes the screens, or if the proposed interconnection fails the screens, but the Area EPS Operator determines that the DER may nevertheless be interconnected consistent with safety, reliability, and power quality standards, the Interconnection Application shall proceed as follows:

3.2.2.1 If the proposed interconnection requires no construction of facilities by the Area EPS Operator on its own system, the Area EPS Operator shall provide the Interconnection Customer an executed Interconnection Agreement within five (5) Business Days after the determination.

3.2.2.2 If the proposed interconnection requires construction of any facilities, the Area EPS Operator shall notify the Interconnection Customer of such requirement when it provides the Initial Review results and copies of the analysis and data underlying the Area EPS Operator's determinations under the screens and either: 1) provide a good faith cost estimate; or 2) require a facilities study pursuant to 4.4.1. Within five (5) Business Days, the Interconnection Customer shall inform the Area EPS Operator if the Interconnection Customer elects to proceed with the proposed interconnection. If the Interconnection Customer makes such an election, the Area EPS Operator shall either provide: i) an Interconnection Agreement, along with a non-binding good faith cost estimate and construction schedule for such upgrades, within twenty (20) Business Days after the Area EPS Operator receives such an election or ii) a facilities study agreement pursuant to section 4.4.

3.2.3 If the proposed interconnection fails the screens, and the Area EPS Operator does not or cannot determine from the Initial Review that the DER may nevertheless be interconnected consistent with safety, reliability, and power quality standards unless the Interconnection Customer is willing to consider minor modifications or further study, the Area EPS Operator shall provide the Interconnection Customer the opportunity to attend a customer options meeting.

<sup>1</sup> This screen does not include substation voltage regulators.

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3.3 Customer Options Meeting

If the Area EPS Operator determines the Interconnection Application cannot be approved without either 1) supplemental review, other additional studies or actions; or 2) incurring significant cost to address safety, reliability, or power quality problems, the Area EPS Operator shall notify the Interconnection Customer of that determination and provide copies of all directly pertinent data and analyses underlying its conclusion, subject to confidentiality provisions in Section 5.9 and where applicable limited by privacy rules. Within ten (10) Business Days of the Area EPS Operator's determination, unless mutual agreement, the Area EPS Operator and Interconnection Customer shall schedule a customer options meeting with the Interconnection Customer to review possible facility modifications, screen analysis and related results to determine what further steps are needed to permit the DER to be connected safely and reliably. At the time of notification of the Area EPS Operator's determination, or at the customer options meeting, the Area EPS Operator shall:

3.3.1 Offer to perform a supplemental review in accordance with section 3.4 and provide a non-binding good faith estimate of the costs of such review; or

3.3.2 Obtain the Interconnection Customer's agreement to continue evaluating the Interconnection Application under the Section 4 Study Process.

3.4 Supplemental Review

3.4.1 To accept the offer of a supplemental review, the Interconnection Customer shall agree in writing and submit a deposit for the estimated costs of the supplemental review in the amount of the Area EPS Operator's good faith estimate of the costs of such review, both within fifteen (15) Business Days of the offer. If the written agreement and deposit have not been received by the Area EPS Operator within that timeframe, the Interconnection Application shall continue to be evaluated under the Section 4 Study Process unless it is withdrawn by the Interconnection Customer.

3.4.2 The Interconnection Customer may specify with the written agreement and deposit the order in which the Area EPS Operator will complete the supplemental review screens. The order specified shall be at the level of sections 3.4.4.1, 3.4.4.2, and 3.4.4.3.

3.4.3 The Interconnection Customer shall be responsible for the Area EPS Operator's actual costs for conducting the supplemental review. The Interconnection Customer shall pay any review costs that exceed the deposit within twenty (20) Business Days of receipt of the invoice or resolution of any dispute. If the deposit exceeds the invoiced costs, the Area EPS Operator will return such excess within twenty (20) Business Days of the invoice without interest.

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3.4.4 Within thirty (30) Business Days following receipt of the deposit for a supplemental review, the Area EPS Operator shall: 1) perform a supplemental review using the screens set forth below; 2) notify in writing the Interconnection Customer of the results; and 3) include with the notification copies of the analysis and data underlying the Area EPS Operator's determinations under the screens. Unless the Interconnection Customer provided instructions for how to respond to the failure of any of the supplemental review screens below at the time the Interconnection Customer accepted the offer of supplemental review, the Area EPS Operator shall notify the Interconnection Customer following the failure of any of the screens, or if it is unable to perform the screen in this section within two (2) Business Days of making such determination to obtain the Interconnection Customer's permission to: 1) continue evaluating the proposed interconnection under this section 3.4.4; 2) terminate the supplemental review and continue evaluating the DER under Section 4 Study Process; or 3) terminate the supplemental review upon withdrawal of the Interconnection Application by the Interconnection Customer. The Interconnection Customer shall respond with its choice within five (5) Business Days of notification from the Area EPS Operator.

3.4.4.1 Minimum Load Screen: Where 12 months of line section minimum load data (including onsite load but not station service load served by the proposed DER) are available, can be calculated, can be estimated from existing data, or determined from a power flow model, the aggregate DER capacity on the line section is less than 100% of the minimum load for all line sections bounded by automatic sectionalizing devices upstream of the proposed DER. If minimum load data is not available, or cannot be calculated, estimated or determined, the Area EPS Operator shall include the reason(s) that it is unable to calculate, estimate or determine minimum load in its supplemental review results notification under section 3.4.4.

3.4.4.1.1 The type of generation used by the proposed DER will be taken into account when calculating, estimating, or determining circuit or line section minimum load relevant for the application of screen 3.4.4.1. Solar photovoltaic (PV) generation systems with no battery storage use daytime minimum load (i.e., 10 a.m. to 4 p.m. for fixed panel systems and 8 a.m. to 6 p.m. for PV systems utilizing tracking systems), while all other generation uses absolute minimum load.

3.4.4.1.2 When this screen is being applied to a DER that serves some station service load, only the net injection into the Area EPS Operator's electric system will be considered as part of the aggregate generation.

3.4.4.1.3 Area EPS Operator will not consider as part of the aggregate generation for purposes of this screen DER capacity known to be already reflected in the minimum load data.

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3.4.4.2 Voltage and Power Quality Screen: In aggregate with existing generation on the line section: (1) the voltage regulation on the line section can be maintained in compliance with relevant requirements under all system conditions; (2) the voltage fluctuation is within acceptable limits as defined by Institute of Electrical and Electronics Engineers (IEEE) Standard 1453, or utility practice similar to IEEE Standard 1453; and (3) the harmonic levels meet IEEE Standard 519 limits.

3.4.4.3 Safety and Reliability Screen: The location of the proposed DER and the aggregate generation capacity on the line section do not create impacts to safety or reliability that cannot be adequately addressed without application of the Study Process. The Area EPS Operator shall give due consideration to the following and other factors in determining potential impacts to safety and reliability in applying this screen.

3.4.4.3.1 Whether the line section has significant minimum loading levels dominated by a small number of customers (e.g., several large commercial customers).

3.4.4.3.2 Whether the loading along the line section is uniform or even.

3.4.4.3.3 Whether the proposed DER is located in close proximity to the substation (i.e., less than 2.5 electrical circuit miles), and whether the line section from the substation to the Point of Common Coupling is a Main line rated for normal and emergency ampacity.

3.4.4.3.4 Whether the proposed DER incorporates a time delay function to prevent reconnection of the generator to the system until system voltage and frequency are within normal limits for a prescribed time.

3.4.4.3.5 Whether operational flexibility is reduced by the proposed DER, such that transfer of the line section(s) of the DER to a neighboring distribution circuit/substation may trigger overloads or voltage issues.

3.4.4.3.6 Whether the proposed DER employs equipment or systems certified by a recognized standards organization to address technical issues such as, but not limited to, islanding, reverse power flow, or voltage quality.

3.4.5 If the proposed interconnection passes the supplemental screens in sections 3.4.4.1, 3.4.4.2, and 3.4.4.3 above, or if the proposed interconnection fails the screens, but the Area EPS Operator determines that the DER may nevertheless be interconnected consistent with safety, reliability, and power quality standards, the interconnection shall proceed as follows:

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3.4.5.1 If the proposed interconnection passes the supplemental screens in sections 3.4.4.1, 3.4.4.2, and 3.4.4.3 above and does not require construction of facilities by the Area EPS Operator on its own system, the Area EPS Operator shall provide the Interconnection Customer an executable Interconnection Agreement within five (5) Business Days.

3.4.5.2 If the proposed interconnection requires construction of any facilities, the Area EPS Operator shall notify the Interconnection Customer of such requirement when it provides the supplemental review results and either: 1) provide a good faith cost estimate; or 2) require a facilities study pursuant to 4.4.1. Within five (5) Business Days, the Interconnection Customer shall inform the Area EPS Operator if the Interconnection Customer elects to proceed with the proposed interconnection. If the Interconnection Customer makes such an election, the Area EPS Operator shall either provide: i) an Interconnection Agreement, along with a non-binding good faith cost estimate and construction schedule for such upgrades, within twenty (20) Business Days after the Area EPS Operator receives such an election or ii) a facilities study agreement pursuant to section 4.4.

3.4.6 If the proposed interconnection fails the screens, and the Area EPS Operator does not or cannot determine that the DER may nevertheless be interconnected consistent with safety, reliability, and power quality standards unless the Interconnection Customer is willing to consider minor modifications or further study, the Area EPS Operator shall provide the Interconnection Customer the option of commencing the Section 4 Study Process. If the Interconnection Customer wishes to proceed it shall notify the Area EPS Operator within fifteen (15) Business Days to retain its queue position.

#### **Section 4. Study Process**

##### **4.1 Applicability**

The Study Process shall be used by an Interconnection Customer proposing to interconnect its DER with the Area EPS Operator's Distribution System if the DER 1) is not eligible for Section 2 Simplified Process review or Section 3 Fast Track Process review, or 2) did not pass the Fast Track Process or the Simplified Process. The application fee described in section 1.5.1.3 shall be applied to the application completeness review costs and the first deposit required in this section.

##### **4.2 Scoping Meeting**

4.2.1 A scoping meeting shall be held within ten (10) Business Days after the Interconnection Application is deemed complete or, if applicable, the Fast Track Process or Simplified Process has been completed and the Interconnection Customer has elected to continue with the Study Process, or as mutually agreed to by the Parties. The Area EPS Operator and the Interconnection Customer will bring to the meeting personnel, including system engineers and other resources, as may be reasonably required to accomplish the purpose of the meeting.

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4.2.2 The purpose of the scoping meeting is to discuss the Interconnection Application and review existing study results and relevant underlying data and assumptions relevant to the Interconnection Application. The Parties shall further discuss whether the Area EPS Operator should perform a system impact study or studies, or proceed directly to a facilities study or an Interconnection Agreement. If the Area EPS Operator determines there is no potential for Transmission System or Distribution System adverse system impacts, the Interconnection Application shall proceed directly to a facilities study or an executable Interconnection Agreement, as agreed to by the Parties.

4.2.3 The scoping meeting may be omitted by mutual agreement.

4.3 System Impact Study

4.3.1 A system impact study shall identify and detail the electric system impacts that would result if the proposed DER(s) were interconnected without project modifications or electric system modifications, and to study potential impacts, including but not limited to those identified in the scoping meeting. A system impact study shall evaluate the impact of the proposed interconnection on the reliability of the electric system.

4.3.2 If the Parties agree at the scoping meeting that a system impact study should be performed, the Area EPS Operator shall provide the Interconnection Customer, as soon as possible, but not later than five (5) Business Days after the scoping meeting, a system impact study agreement as defined in 4.3.3.

If the scoping meeting is omitted by mutual agreement or, if applicable, the Simplified Process or Fast Track Process has been completed and the Interconnection Customer has elected to continue with the Study Process, and a system impact study is required, the Area EPS Operator shall provide the Interconnection Customer a system impact study agreement within ten (10) Business Days.

4.3.3 The system impact study agreement (Attachment 6) shall include an outline of the scope of the study and a non-binding good faith estimate of the cost to perform the study. If applicable, the agreement shall list any additional and reasonable technical data on the DER needed to perform the system impact study. The scope of and cost responsibilities for a system impact study are described in the attached system impact study agreement. A deposit of the good faith estimated costs for each system impact study shall be provided by the Interconnection Customer when it returns the study agreements. The additional and reasonable technical data, if applicable, shall be returned with the system impact agreement. Upon Interconnection Customer request, the Area EPS Operator shall grant a time frame extension as described in 5.2.3 if additional technical data is requested.

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INTERCONNECTION PROCESS (MN DIP)  
(Continued)**

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4.3.4 In order to remain in consideration for interconnection, an Interconnection Customer who has requested a System Impact Study must return the executed system impact study agreement and pay the required study deposit within twenty (20) Business Days.

4.3.5 A System Impact Study shall be completed within thirty (30) Business Days after the system impact study agreement is signed by the Parties and delivered with deposit to the Area EPS Operator. The results and, if necessary, facilities study agreement shall be delivered to the Interconnection Customer within five (5) Business Days of completion of the System Impact Study. Upon request, the Area EPS Operator shall provide Interconnection Customer supporting documentation and workpapers developed in the preparation of the system impact study, subject to confidentiality arrangements consistent with these procedures and the System Impact Study agreement.

4.3.6 In instances where the System Impact Study shows potential for Transmission System adverse system impacts, within five (5) Business Days following the identification of such impacts by the Area EPS Operator, the Area EPS Operator shall coordinate with the appropriate Transmission Provider to have the necessary studies completed to determine if the DER causes any adverse transmission impacts.

4.3.7 In order to remain in consideration for interconnection, an Interconnection Customer must return the executed Transmission System impact study agreement within fifteen (15) Business Days.

4.3.8 A Transmission System impact study, if required, shall be completed and the results transmitted to the Interconnection Customer in as timely a manner as possible after the transmission system impact study agreement is signed by the Parties. The Area EPS Operator shall be responsible for coordination with the Transmission Provider as needed. Affected Systems shall participate in the study and provide all information necessary to prepare the study.

4.4 Facilities Study

4.4.1 If construction of facilities is required, a facilities study may be necessary to specify and estimate the cost of the equipment, engineering, procurement and construction work identified in Initial Review, Supplemental Review, or the Study Process to provide interconnection and interoperability of the DER with the Area EPS Operator's Distribution System as required by Minnesota Technical Requirements. Interconnection Applications reviewed in the Simplified Process and Fast Track Process that require construction of facilities may be eligible, upon determination of the Area EPS Operator, to forego a facilities study as described in section 3.2.2.2.

The Area EPS Operator shall provide the Interconnection Customer a facilities study agreement in tandem with the results of the Interconnection Customer's system impact study or, if required, Transmission System impact study.

If no system impact study is required, but a facilities study is required, then the Area EPS Operator shall provide as soon as possible, but not later than five (5) Business Days after the scoping meeting, a facilities study agreement.

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(Continued)**

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If the scoping meeting is omitted by mutual agreement and no system impact study is required, but a facilities study is required, the Area EPS Operator shall provide the Interconnection Customer a facilities study agreement within ten (10) Business Days after the Interconnection Application is deemed complete and, if applicable, the Simplified Process or Fast Track Process has been completed.

4.4.2 The facilities study agreement (Attachment 7) shall be accompanied by an outline of the scope of the study and a non-binding good faith estimate of the cost to perform the facilities study. The scope of and cost responsibilities for the facilities study are described in the attached facilities study agreement. A deposit of the good faith estimated costs for the facilities study shall be provided by the Interconnection Customer at the time it returns the study agreement.

4.4.3 In order to remain under consideration for interconnection, the Interconnection Customer must return the executed facilities study agreement and pay the required study deposit within fifteen (15) Business Days.

4.4.4 The facilities study shall specify and estimate the cost of the equipment, engineering, procurement and construction work (including overheads) needed to implement the conclusions of the system impact study(s).

4.4.5 Design for any required Interconnection Facilities and/or Upgrades shall be performed under the Facilities Study Agreement unless the Interconnection Application is processed under the provisions of section 3.2.2.2. However, in the event that the Interconnection Customer did not provide to the Area EPS Operator all required Conditional Use Permits at the time of entering into the Facilities Study Agreement, any such Design and/or Upgrades by the Area EPS Operator may be delayed until after the Interconnection Customer has provided to the Area EPS Operator all required Conditional Use Permits or provided a final design. The information in the Conditional Use Permits, or changes to the design, may result in significant modifications to the planned design and/or Upgrades. The Interconnection Customer may send to the Area EPS Operator a redacted version of the Conditional Use Permit to ensure confidentiality, but any and all information that the Area EPS Operator would reasonably need to perform an accurate Facilities Study shall not be redacted. If necessary to comply with these requirements, a confidential version of the Conditional Use Permit may be provided to the Area EPS Operator, with the confidential information being clearly marked and subject to the Confidentiality provisions in 5.9. The Area EPS Operator may contract with consultants to perform activities required under the facilities study agreement. The Interconnection Customer and the Area EPS Operator may agree to allow the Interconnection Customer to separately arrange for the design of some of the Interconnection Facilities. In such cases, facilities design will be reviewed and/or modified prior to acceptance by the Area EPS Operator, under the provisions of the Facilities Study Agreement. If the Parties agree to separately arrange for design and construction, and provided security and confidentiality requirements can be met, the Area EPS Operator shall make sufficient information available to the Interconnection Customer in accordance with confidentiality and critical infrastructure requirements to permit the Interconnection Customer to obtain an independent design and cost estimate for any necessary facilities.

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- 4.4.6 In cases where Upgrades are required, the facilities study must be completed within forty-five (45) Business Days of the receipt of the executed facilities study agreement and deposit.
- 4.4.7 In cases where no Upgrades are necessary, and the required facilities are limited to Interconnection Facilities, the facilities study must be completed within thirty (30) Business Days of the receipt of the executed facilities study agreement and deposit.
- 4.4.8 Once the facilities study is completed, a draft facilities study report shall be prepared and transmitted to the Interconnection Customer. Upon request, the Area EPS Operator shall provide Interconnection Customer supporting documentation and workpapers developed in the preparation of the Interconnection Facilities Study, subject to confidentiality arrangements consistent with these procedures and the facilities study agreement.
- 4.4.9 Within ten (10) Business Days of providing a draft facilities study report to Interconnection Customer, the Area EPS Operator and Interconnection Customer shall meet to discuss the results of the facilities study unless the meeting is omitted by mutual agreement.
- 4.4.10 Interconnection Customer may, within twenty (20) Business Days after receipt of the draft report, provide written comments to the Area EPS Operator, which the Area EPS Operator shall address in the final report.
- 4.4.11 The Area EPS Operator shall issue the final facilities study report within fifteen (15) Business Days of receiving Interconnection Customer's comments or promptly upon receiving Interconnection Customer's statement that it will not provide comments. The Area EPS Operator may reasonably extend the time frame upon notice to the Interconnection Customer if the Interconnection Customer's comments require additional analyses or lead to significant modifications by the Area EPS Operator prior to issuance of the final facilities study report.

**Section 5. Provisions that Apply to All Interconnection Applications**

5.1 Interconnection Agreement

- 5.1.1 The Area EPS Operator shall provide the Interconnection Customer an executable Interconnection Agreement as described in section 1.1.5 within five (5) Business Days after the completion of all required review or study of the Interconnection Application unless sections 3.2.2.2, 3.4.5.1, 3.4.5.2 or 4.2.2 applies.

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5.1.2 After receiving an Interconnection Agreement from the Area EPS Operator, the Interconnection Customer shall have thirty (30) Business Days to sign and return the interconnection agreement. If the Interconnection Customer does not sign the interconnection agreement, request an extension pursuant to these procedures, or ask the Area EPS Operator to file an unexecuted Interconnection Agreement with the Commission within thirty (30) Business Days, the Interconnection Application shall be deemed withdrawn. The Area EPS Operator shall provide the Interconnection Customer a fully executed Interconnection Agreement within five (5) Business Days after receiving a signed interconnection agreement from the Interconnection Customer. After the Interconnection Agreement is signed by the Parties, the interconnection of the DER shall proceed under the provisions of the Interconnection Agreement, except to the extent these procedures remain applicable, including, but not limited to, sections 5.5, 5.6, and 5.7.

## 5.2 Time Frames and Extensions

5.2.1 Response or Action Timeframes: Unless otherwise stated, all time frames are measured in Business Days. For purposes of measuring these time intervals and consistent with Minn. Stat. §645.15, the time shall be computed so as to exclude the first and include the last day of the prescribed or fixed period or duration of time. Any communication sent or received after 4:30 p.m. (local time in Saint Paul, Minnesota) or on a Saturday, Sunday, or Holiday shall be considered to have been sent on the next Business Day.

5.2.2 The Area EPS Operator shall make Reasonable Efforts to meet all time frames provided in these procedures. If the Area EPS Operator cannot meet a deadline provided herein, it must notify the Interconnection Customer in writing within three (3) Business Days after the deadline to explain the reason for the failure to meet the deadline, and provide an estimated time by which it will complete the applicable interconnection procedure in the process.

5.2.3 For applicable time frames described in these procedures, the Interconnection Customer may request in writing one extension equivalent to half of the time originally allotted (e.g., ten (10) Business Days for a twenty (20) Business Days original time frame) which the Area EPS Operator may not unreasonably refuse. No further extensions for the applicable time frame shall be granted absent a Force Majeure Event or other similarly extraordinary circumstances.

## 5.3 Disputes

5.3.1 The Parties agree to attempt to resolve all disputes arising out of the interconnection process and associated study and Interconnection Agreements according to the provisions of this article and Minnesota Administrative Rules 7829.1500-7829.1900. More information on the Commission's Consumer Affairs Office dispute resolution services is available on the Commission's website: <https://mn.gov/puc/consumers/help/complaint/>

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- 5.3.2 Prior to a written Notice of Dispute, the Party shall contact the other Party and raise the issue and the relief sought in an attempt to resolve the issue immediately.
- 5.3.3 In the event of a dispute, the disputing Party shall provide the other Party a written Notice of Dispute containing the relevant known facts pertaining to the dispute, the specific dispute and the relief sought, and express notice by the disputing Party that it is invoking the procedures under this article. The Interconnection Customer may utilize the Commission's Consumer Affairs Office's complaint/inquiry form and Informal Complaint dispute resolution process to assist with the written Notice of Dispute. The notice shall be sent to the non-disputing Party's email address and physical address set forth in the Interconnection Agreement or Interconnection Application, if there is no Interconnection Agreement. If the Interconnection Customer chooses not to utilize the Commission's Consumer Affairs Office dispute resolution process, the Interconnection Customer shall provide an informational electronic copy of the Notice of Dispute to the Consumer Affairs Office at the Commission at [consumer.puc@state.mn.us](mailto:consumer.puc@state.mn.us).
- 5.3.4 The non-disputing Party shall acknowledge the notice within three (3) Business Days of its receipt and identify a representative with the authority to make decisions for the non-disputing Party with respect to the dispute.
- 5.3.5 The non-disputing Party shall provide the disputing Party with relevant regulatory and/or technical details and analysis regarding the Area EPS Operator interconnection requirements under dispute within ten (10) Business Days of the date of the Notice of Dispute. Within twenty (20) Business Days of the date of the Notice of Dispute, the Parties' authorized representatives will be required to meet and confer to try to resolve the dispute. Parties shall operate in good faith and use best efforts to resolve the dispute.
- 5.3.6 If a resolution is not reached in the thirty (30) Business Days from the date of the notice described in section 5.3.3, the Parties may 1) if mutually agreed, continue negotiations for up to an additional twenty (20) Business Days; or 2) either Party may request the Commission's Consumer Affairs Office provide mediation in an attempt to resolve the dispute within twenty (20) Business Days with the opportunity to extend this timeline upon mutual agreement. Alternatively, both Parties by mutual agreement may request mediation from an outside third-party mediator with costs to be shared equally between the Parties.
- 5.3.7 If the results of the mediation are not accepted by one or more Parties and there is still disagreement, the dispute shall proceed to the Commission's Formal Complaint process as described in Minn. Rules 7829.1700-1900 unless mutually agreed to continue with informal dispute resolution.
- 5.3.8 At any time, either Party may file a complaint before the Commission pursuant to Minn. Stat. §216B.164, if applicable, and Commission rules outlined in Minn. Rules Ch. 7829.

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5.4 Interconnection Metering

Any metering requirements necessitated by the use of the DER shall be installed at the Interconnection Customer's expense. The Interconnection Customer is responsible for replacement meter costs not covered in the Interconnection Customer's general customer charge. The Area EPS Operator may charge Interconnection Customers an ongoing metering-related charge for an estimate of ongoing metering-related costs specifically demonstrated and approved in tariff regardless of the choice of meter payment. The Area EPS Operator shall offer the Interconnection Customer the following payment options:

5.4.1 Pay upfront the cost of metering requirements for the DER. Any maintenance or replacement costs may be billed separately to the Interconnection Customer after these costs are incurred.

5.4.2 Pay a tariffed monthly charge for the actual, DER-related meter and metering-related costs. If no tariffed monthly charge is an exact match, then the closest applicable tariffed monthly charge shall apply; unless metering requirements are so different that individual case basis pricing should apply.

5.5 Non-Warranty

The Area EPS Operator does not give any warranty, expressed or implied, as to the adequacy, safety, or other characteristics of any structures, equipment, wires, appliances or devices owned, operated, installed or maintained by the Interconnection Customer, including without limitation the DER and any structures, equipment, wires, appliances or devices not owned, operated or maintained by the Area EPS Operator.

5.6 Design, Procurement, Installation and Construction of Interconnection Facilities and Upgrades

5.6.1 The Interconnection Customer shall pay for the actual cost of the Interconnection Facilities and Distribution Upgrades as described and itemized pursuant to the Interconnection Agreement and its attachments. If Network Upgrades are required, the actual cost of the Network Upgrades, including overheads, shall be borne by the Interconnection Customer pursuant to the Transmission Provider and associated agreement(s). As indicated in the Interconnection Agreement, the Area EPS Operator shall provide a good faith cost estimate, including overheads, for the purchase and construction of the Interconnection Facilities, Distribution Upgrades, and Network Upgrades, and provide a detailed itemization of such costs.

5.6.2 The Interconnection Customer and the Area EPS Operator shall agree on milestones for which each Party is responsible and list them in an attachment to the Interconnection Agreement. To the greatest extent possible, the Parties will identify all design, procurement, installation and construction requirements associated with a project, and clear associated timelines, at the beginning of the design, procurement, installation and construction phase, or as early within the process as possible.

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5.6.3 A Party's obligations under this provision may be extended by agreement. If a Party anticipates that it will be unable to meet a milestone for any reason other than a Force Majeure Event, it shall immediately notify the other Party of the reason(s) for not meeting the milestone and 1) propose the earliest reasonable alternate date by which it can attain this and future milestones, and 2) request appropriate amendments to the Interconnection Agreement and its attachments. The Party affected by the failure to meet a milestone shall not unreasonably withhold agreement to such an amendment unless 1) it will suffer significant uncompensated economic or operational harm from the delay, 2) attainment of the same milestone has previously been delayed, or 3) it has reason to believe that the delay in meeting the milestone is intentional or unwarranted notwithstanding the circumstances explained by the Party proposing the amendment. If the Party affected by the failure to meet a milestone disputes the proposed extension, the affected Party may pursue dispute resolution pursuant to 5.3.

5.6.4 At the option of the Area EPS Operator, either the "Traditional Security" or the "Modified Security" method shall be used.

5.6.4.1 Under the Traditional Security method, the Interconnection Customer shall provide reasonable adequate assurances of credit, including a letter of credit or personal guaranty of payment and performance from a creditworthy entity acceptable under the Area EPS Operator credit policy and procedures for the unpaid balance of the estimated amount shown in Interconnection Agreement for the totality of all anticipated work or expense incurred by the Area EPS Operator associated with the Interconnection Application. The payment for these estimated costs shall be as follows:

5.6.4.1.1 1/3 of estimated costs shall be due no later than when the Interconnection Customer signs the Interconnection Agreement.

5.6.4.1.2 An additional 1/3 of estimated costs shall be due prior to initial energization of the Generation System with the Area EPS Operator.

5.6.4.1.3 Remainder of actual costs, incurred by Area EPS Operator, shall be due within 30 days from the date the bill is mailed by the Area EPS Operator after project completion.

5.6.4.2 Under the Modified Security method, at least twenty (20) Business Days prior to the commencement of the design, procurement, installation, or construction of a discrete portion of the Area EPS Operator's Interconnection Facilities and Upgrades, the Interconnection Customer shall provide the Area EPS Operator, at the Interconnection Customer's option, a guarantee, letter of credit or other form of security that is reasonably acceptable to the Area EPS Operator and is consistent with the Minnesota Uniform Commercial Code. Such security for payment shall be in an amount sufficient to cover the costs for constructing, designing, procuring, and installing the applicable portion of the Area EPS Operator's Interconnection Facilities and Upgrades and shall be reduced on a dollar-for-dollar basis for payments made to the Area EPS Operator under the Interconnection Agreement during its term.

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5.6.4.3 The guarantee must be made by an entity that meets the creditworthiness requirements of the Area EPS Operator, and contain terms and conditions that guarantee payment of any amount that may be due from the Interconnection Customer, up to an agreed-to maximum amount.

5.6.4.4 The letter of credit must be issued by a financial institution or insurer reasonably acceptable to the Area EPS Operator and must specify a reasonable expiration date not sooner than sixty (60) Business Days (three calendar months) after the due date of the final accounting report and bill described in 5.6.6.

5.6.5 The Area EPS Operator shall bill the Interconnection Customer for the design, engineering, construction, and procurement costs of Interconnection Facilities and Upgrades described in the Interconnection Agreement on a monthly basis, or as otherwise agreed by the Parties in the interconnection agreement. The Interconnection Customer shall pay each bill within twenty-one (21) Business Days of receipt, or as otherwise agreed to by the Parties in the interconnection agreement.

5.6.6 Within eighty (80) Business Days (approximately four (4) calendar months) of completing the construction and installation of the Area EPS Operator's Interconnection Facilities and/or Upgrades described in the interconnection agreement and its attachments, the Area EPS Operator shall provide the Interconnection Customer with a final accounting report of any difference between 1) the Interconnection Customer's cost responsibility for the actual cost of such facilities or Upgrades, and 2) the Interconnection Customer's previous aggregate payments to the Area EPS Operator for such facilities or Upgrades. If the Interconnection Customer's cost responsibility exceeds its previous aggregate payments, the Area EPS Operator shall invoice the Interconnection Customer for the amount due and the Interconnection Customer shall make payment to the Area EPS Operator within twenty (20) Business Days. If the Interconnection Customer's previous aggregate payments exceed its cost responsibility under the Interconnection Agreement, the Area EPS Operator shall refund to the Interconnection Customer an amount equal to the difference within twenty (20) Business Days of the final accounting report.

5.7 Inspection, Testing, Commissioning and Authorization

5.7.1 The Interconnection Customer shall arrange for the inspection and testing of the DER and the Customer's Interconnection Facilities prior to interconnection pursuant to Minnesota Interconnection Technical Requirements. Commissioning tests of the Interconnection Customer's installed equipment shall be performed pursuant to applicable codes and standards pursuant to Minnesota Technical Requirements.

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(Continued on Sheet No. 10-200)

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5.7.2 The Interconnection Customer shall notify the Area EPS Operator of testing and inspection no fewer than five (5) Business Days in advance, or as may be agreed to by the Parties. Testing and inspection shall occur on a Business Day. The Area EPS Operator may, at its own expense if not required in Minnesota Interconnection Technical Requirements, send qualified personnel to the DER site to inspect the interconnection and witness the testing. The Interconnection Customer shall provide the Area EPS Operator a written results report.

5.7.3 The Area EPS Operator shall provide the Interconnection Customer written acknowledgment that it has received the Interconnection Customer's written test report. Such written acknowledgment shall not be deemed to be or construed as any representation, assurance, guarantee, or warranty by the Area EPS Operator of the safety, durability, suitability, or reliability of the DER or any associated control, protective, and safety devices owned or controlled by the Interconnection Customer or the quality of power produced by the DER.

5.8 Authorization Required Prior to Parallel Operation

5.8.1 Area EPS Operator shall use Reasonable Efforts to list applicable parallel operation requirements by attaching the MN Technical Requirements to the Interconnection Agreement. Additionally, the Area EPS Operator shall notify the Interconnection Customer of any changes to these requirements as soon as they are known. The Area EPS Operator shall make Reasonable Efforts to cooperate with the Interconnection Customer in meeting requirements necessary for the Interconnection Customer to commence parallel operations by the in-service date.

5.8.2 The Interconnection Customer shall not operate its DER in parallel with the Area EPS Operator's Distribution System without prior written permission to operate authorization from the Area EPS Operator. The Area EPS Operator shall provide such authorization within three (3) Business Days from when the Area EPS Operator receives notification that the Interconnection Customer has complied with all applicable parallel operation requirements and all payments for issued bills under the Interconnection Agreement, System Impact Study Agreement, Facilities Study Agreement or Section 5.6.5 above that are past due have been paid in full. Such authorization shall not be unreasonably withheld, conditioned, or delayed.

5.9 Confidentiality

5.9.1 Confidential Information shall mean any confidential and/or proprietary information provided by one Party to the other Party that is clearly marked or otherwise designated "Confidential." For purposes of these procedures, design, operating specifications, and metering data provided by the Interconnection Customer may be deemed Confidential Information regardless of whether it is clearly marked or otherwise designated as such. If requested by either Party, the other Party shall provide in writing the basis for asserting that the information warrants confidential treatment. Parties providing a Governmental Authority trade secret, privileged or otherwise not public or nonpublic data under the Minnesota Government Data Practices Act, Minnesota Statutes Chapter 13, shall identify such data consistent with the Commission's September 1, 1999 Revised Procedures for Handling Trade Secret and Privileged Data, available online at: <https://mn.gov/puc/puc-documents/#4>

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5.9.2 Confidential Information does not include information previously in the public domain with proper authorization, required to be publicly submitted or divulged by Governmental Authorities (after notice to the other Party and after exhausting any opportunity to oppose such publication or release), or necessary to be publicly divulged in an action to enforce these procedures. Each Party receiving Confidential Information shall hold such information in confidence and shall not disclose it to any third party nor to the public without the prior written authorization from the Party providing that information, except to fulfill obligations under these procedures, or to fulfill legal or regulatory requirements that could not otherwise be fulfilled by not making the information public.

5.9.2.1 Each Party shall hold in confidence and shall not disclose Confidential Information, to any person (except employees, officers, representatives and agents, who agree to be bound by this section). Confidential Information shall be clearly marked as such on each page or otherwise affirmatively identified. If a court, government agency or entity with the right, power, and authority to do so, requests or requires either Party, by subpoena, oral disposition, interrogatories, requests for production of documents, administrative order, or otherwise, to disclose Confidential Information, that Party shall provide the other Party with prompt notice of such request(s) or requirements(s) so that the other Party may seek an appropriate protective order or waive compliance with the terms of this Agreement. In the absence of a protective order or waiver the Party shall disclose such confidential information which, in the opinion of its counsel, the party is legally compelled to disclose. Each Party will use reasonable efforts to obtain reliable assurance that confidential treatment will be accorded any confidential information so furnished.

5.9.2.2 Critical infrastructure information or information that is deemed or otherwise designated by a Party as Critical Energy/Electric Infrastructure Information (CEII) pursuant to FERC regulation, 18 C.F.R. §388.133, as may be amended from time to time, may be subject to further protections for disclosure as required by FERC or FERC regulations or orders and the disclosing Party's CEII policies.

5.9.2.3 Each Party shall employ at least the same standard of care to protect Confidential Information obtained from the other Party as it employs to protect its own Confidential Information.

5.9.2.4 Each Party is entitled to equitable relief, by injunction or otherwise, to enforce its rights under this provision to prevent the release of Confidential Information without bond or proof of damages, and may seek other remedies available at law or in equity for breach of this provision.

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5.10 Insurance

5.10.1 At a minimum, the Interconnection Customer shall maintain, during the term of the Interconnection Agreement, general liability insurance, from a qualified insurance agency with a B+ or better rating by "Best" and with a combined single limit of not less than the limits described in the chart below.

<u>Distributed Energy Resource System Size</u>	<u>Liability Insurance Requirement</u>
<u>≤ 40 kWac</u>	<u>\$300,000</u>
<u>&gt; 40 kWac and ≤ 250 kWac</u>	<u>\$1,000,000</u>
<u>&gt; 250 kWac and ≤ 5 MWac</u>	<u>\$2,000,000</u>
<u>&gt; 5 MWac and ≤ 10 MWac</u>	<u>\$3,000,000</u>

Such general liability insurance shall include coverage against claims for damages resulting from (i) bodily injury, including wrongful death; and (ii) property damage arising out of the Interconnection Customer's ownership and/or operation of the DER under this agreement.

5.10.2 The general liability insurance required shall, by endorsement to the policy or policies, (a) include the Area EPS Operator as an additional insured; (b) contain a severability of interest clause or cross-liability clause; (c) provide that the Area EPS Operator shall not by reason of its inclusion as an additional insured incur liability to the insurance carrier for the payment of premium for such insurance; and (d) provide for twenty (20) business days' written notice to the Area EPS Operator prior to cancellation, termination, alteration or material change of such insurance.

5.10.3 If the DER is connected to an account receiving residential service from the Area EPS Operator and its system size is less than 40kW, then the endorsements required in Section 5.10.2 shall not apply.

5.10.4 The Interconnection Customer shall furnish the required insurance certificates and endorsements to the Area EPS Operator prior to the initial operation of the DER. Thereafter, the Area EPS Operator shall have the right to periodically inspect or obtain a copy of the original policy or policies of insurance.

5.10.5 Evidence of the insurance required in Section 5.10.1 shall state that coverage provided is primary and is not excess to or contributing with any insurance or self-insurance maintained by the Area EPS Operator.

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5.10.6 If the Interconnection Customer is self-insured with an established record of self-insurance, the Interconnection Customer may comply with the following in lieu of Sections 5.10.1 - 5.10.5.

5.10.6.1 Interconnection Customer shall provide the Area EPS Operator, at least twenty (20) days prior to the date of initial operation, evidence of an acceptable plan to self-insure to a level of coverage equivalent to that required under Section 5.10.1.

5.10.6.2 If the Interconnection Customer ceases to self-insure to the level required hereunder, or if the Interconnection Customer is unable to provide continuing evidence of the ability to self-insure, the Interconnection Customer agrees to immediately obtain the coverage required under Section 5.10.1.

5.10.6.3 Failure of the Interconnection Customer or the Area EPS Operator to enforce the minimum levels of insurance does not relieve the Interconnection Customer from maintaining such levels of insurance or relieve the Interconnection Customer of any liability.

5.10.7 An Interconnection Customer's insurance requirements shall be limited to no more than an aggregate cap of \$35 million if the Interconnection Customer has multiple DER systems in the Area EPS Operator's service territory.

5.11 Comparability

The Area EPS Operator shall receive, process and analyze all Interconnection Applications in a timely manner as set forth in this document. The Area EPS Operator shall use the same Reasonable Efforts in processing and analyzing Interconnection Applications from all Interconnection Customers, whether the DER is owned or operated by the Area EPS Operator, its subsidiaries or affiliates, or others.

5.12 Record Retention

The Area EPS Operator shall maintain for three years records, subject to audit, of all Interconnection Applications received under these procedures, the times required to complete Interconnection Application approvals and disapprovals, and justification for the actions taken on the Interconnection Applications.

5.13 Coordination with Affected Systems

The Area EPS Operator shall coordinate the conduct of any studies required to determine the impact of the Interconnection Application on Affected Systems with Affected System operators and, if possible, include those results (if available) in its applicable interconnection study within the time frame specified in these procedures. The Area EPS Operator will make Reasonable Effort to include the Affected System operator(s) in all relevant meetings held with the Interconnection Customer as required by these procedures. The Interconnection Customer will cooperate with the Area EPS Operator and the Affected System operator(s) in all matters related to the conduct of studies and the determination of modifications to Affected Systems. Affected System operators shall cooperate with the Area EPS Operator and Interconnection Customer(s) with whom interconnection has been requested in all matters related to the conduct of studies and the determination of modifications to Affected Systems.

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5.14 Capacity of the Distributed Energy Resource

- 5.14.1 If the Interconnection Application is for an increase in capacity for an existing DER, the Interconnection Application shall be evaluated on the basis of the new total alternating current ("AC") capacity of the Distributed Energy Resource. The maximum capacity of a Distributed Energy Resource shall be the Aggregate Nameplate Rating or may be limited as described in 5.14.3.
- 5.14.2 An Interconnection Application for a DER that includes a single or multiple energy production devices at a site for which the Interconnection Customer seeks a single Point of Common Coupling shall be evaluated on the basis of the Aggregate Nameplate Rating of the multiple DERs unless 5.14.3 applies.
- 5.14.3 If the maximum capacity of the DER(s) is limited (e.g., through use of a control system, power relay(s), or other similar device settings or adjustments), then the Interconnection Customer must obtain the Area EPS Operator's agreement that the manner in which the Interconnection Customer proposes to implement such a limit will effectively limit active power output so as to not adversely affect the safety and reliability of the Area EPS Operator's system. Such agreement shall not to be unreasonably withheld. If the Area EPS Operator does not so agree, then the Interconnection Application must be withdrawn or revised. Nothing in this section shall prevent an Area EPS Operator from considering an output higher than the limited output (e.g., Aggregate Nameplate Rating), if the limitations do not provide adequate assurance, when evaluating system impacts. See Minnesota Technical Requirements for more detail.

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(Continued on Sheet No. 10-205)

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Glossary of Terms

**Affected System** – Another Area EPS Operator's System, Transmission Owner's Transmission System, or Transmission System connected generation which may be affected by the proposed interconnection.

**Applicant Agent** – A person designated in writing by the Interconnection Customer to represent or provide information to the Area EPS on the Interconnection Customer's behalf throughout the interconnection process.

**Area EPS** – The electric power distribution system connected at the Point of Common Coupling.

**Area EPS Operator** – An entity that owns, controls, or operates the electric power distribution systems that are used for the provision of electric service in Minnesota. As used in this tariff, this means Northern States Power Company, a Minnesota corporation, doing business as Xcel Energy.

**Business Day** – Monday through Friday, excluding Holidays as defined by Minn. Stat. §645.44, Subd. 5. See MN DIP Section 5.2.1 for more on computation of time.

**Certified Equipment** - UL 1741 listing is a common form of DER inverter certification. See MN DIP Attachment 4: Certification Codes and Standards and Attachment 5: Certification of Distributed Energy Resource Equipment.

**Confidential Information** – See MN DIP 5.9.

**Distributed Energy Resource (DER)** – A source of electric power that is not directly connected to a bulk power system. DER includes both generators and energy storage technologies capable of exporting active power to an EPS. An interconnection system or a supplemental DER device that is necessary for compliance with this standard is part of a DER. For the purpose of the MN DIP and MN DIA, the DER includes the Customer's Interconnection Facilities but shall not include the Area EPS Operator's Interconnection Facilities.

**Distribution System** – The Area EPS facilities which are not part of the Local EPS, Transmission System or any generation system.

**Distribution Upgrades** – The additions, modifications, and upgrades to the Distribution System at or beyond the Point of Common Coupling to facilitate interconnection of the DER and render the distribution service necessary to effect the Interconnection Customer's connection to the Distribution System. Distribution Upgrades do not include Interconnection Facilities.

**Electric Power System (EPS)** – The facilities that deliver electric power to a load.

**Fast Track Process** – The procedure as described in Section 3 for evaluating an Interconnection Application for a DER that meets the eligibility requirements of section 3.1.

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**Force Majeure Event** – An act of God, labor disturbance, act of the public enemy, war, insurrection, riot, fire, storm or flood, explosion, breakage or accident to machinery or equipment, an order, regulation or restriction imposed by governmental, military or lawfully established civilian authorities, or another cause beyond a Party's control. A Force Majeure Event does not include an act of negligence or intentional wrongdoing.

**Good Utility Practice** – Any of the practices, methods and acts engaged in or approved by a significant portion of the electric industry during the relevant time period, or any of the practices, methods and act which, in the exercise of reasonable judgment in light of the facts known at the time the decision was made, could have been expected to accomplish the desired result at a reasonable cost consistent with good business practices, reliability, safety and expedition. Good Utility Practice is not intended to be limited to the optimum practice, method, or act to the exclusion of all others, but rather to be acceptable practices, methods, or acts generally accepted in the region.

**Governmental Authority** – Any federal, state, local or other governmental regulatory or administrative agency, court, commission, department, board, or other governmental subdivision, legislature, rulemaking board, tribunal, or other governmental authority having jurisdiction over the Parties, their respective facilities, or the respective services they provide, and exercising or entitled to exercise any administrative, executive, police, or taxing authority or power; provided, however, that such term does not include the Interconnection Customer, the Area EPS Operator, or any Affiliate thereof. The Minnesota Public Utilities Commission is the authority governing interconnection requirements unless otherwise provided for in the Minnesota Technical Requirements.

**Interconnection Agreement** – The terms and conditions between the Area EPS Operator and Interconnection Customer (Parties). See MN DIP Section **Error! Reference source not found.** for when the Uniform Statewide Contract or MN DIA applies.

**Interconnection Application** – The Interconnection Customer's request to interconnect a new or modified, as described in MN DIP Section **Error! Reference source not found.**, DER. See Attachment 2: Simplified Application Form and Attachment 3 Interconnection Application Form.

**Interconnection Customer** – The person or entity, including the Area EPS Operator, whom will be the owner of the DER that proposes to interconnect a DER(s) with the Area EPS Operator's Distribution System. The Interconnection Customer is responsible for ensuring the DER(s) is designed, operated and maintained in compliance with the Minnesota Technical Requirements.

**Interconnection Facilities** – The Area EPS Operator's Interconnection Facilities and the Interconnection Customer's Interconnection Facilities. Collectively, Interconnection Facilities include all facilities and equipment between the DER and the Point of Common Coupling, including any modification, additions or upgrades that are necessary to physically and electrically interconnect the DER to the Area EPS Operator's System. Some examples of Customer Interconnection Facilities include: supplemental DER devices, inverters, and associated wiring and cables up to the Point of DER Connection. Some examples of Area EPS Operator Interconnection Facilities include sole use facilities: such as, line extensions, controls, relays, switches, breakers, transformers and shall not include Distribution Upgrades or Network Upgrades.

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MINNESOTA DISTRIBUTED ENERGY RESOURCES  
INTERCONNECTION PROCESS (MN DIP)  
(Continued)

Section No. 10  
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**Material Modification** – A modification to machine data, equipment configuration or to the interconnection site of the DER at any time after receiving notification by the Area EPS Operator of a complete Interconnection Application that has a material impact on the cost, timing, or design of any Interconnection Facilities or Upgrades, or a material impact on the cost, timing or design of any Interconnection Application with a later Queue Position or the safety or reliability of the Area EPS.<sup>1</sup>

**MN DIA** - The Minnesota Distributed Energy Resource Interconnection Agreement. See MN DIP Section 1.1.5 for when the Uniform Statewide Contract or MN DIA applies.

**MN DIP** – The Minnesota Distributed Energy Resource Interconnection Process. Statewide interconnection standards in this document.

**MN Technical Requirements or Minnesota Technical Requirements** – The term including all of the DER technical interconnection requirement documents for the state of Minnesota; including: 1.) Attachment 2 Distributed Generation Interconnection Requirements established in the Commission's September 28, 2004 Order in E-999/CI-01-1023) until superseded and upon Commission approval of 2.) updated Minnesota DER Technical Interconnection and Interoperability Requirements in E-999/CI-16-521 (anticipated in late 2019.)

**Nameplate Rating** - nominal voltage (V), current (A), maximum active power (kWac), apparent power (kVA), and reactive power (kvar) at which a DER is capable of sustained operation. For a Local EPS with multiple DER units, the aggregate nameplate rating is equal to the sum of all DERs nameplate rating in the Local EPS, not including aggregate capacity limiting mechanisms such as coincidence factors, plant controller limits, etc. that may be applicable for specific cases (Aggregate Nameplate Rating). The nameplate ratings referenced in the MN DIP are alternating current nameplate DER ratings. See Section 5.14 on Capacity of the Distributed Energy Resource and Minnesota Technical Requirements.

<sup>1</sup> A Material Modification shall include, but may not be limited to, a modification from the approved Interconnection Application that: (1) changes the physical location of the point of common coupling; such that it is likely to have an impact on technical review; (2) increases the nameplate rating or output characteristics of the Distributed Energy Resource; (3) changes or replaces generating equipment, such as generator(s), inverter(s), transformers, relaying, controls, etc., and substitutes equipment that is not like-kind substitution in certification, size, ratings, impedances, efficiencies or capabilities of the equipment; (4) changes transformer connection(s) or grounding; and/or (5) changes to a certified inverter with different specifications or different inverter control settings or configuration. A Material Modification shall not include a modification from the approved Interconnection Application that: (1) changes the ownership of a Distributed Energy Resource; (2) changes the address of the Distributed Energy Resource, so long as the physical point of common coupling remains the same; (3) changes or replaces generating equipment such as generator(s), inverter(s), solar panel(s), transformers, relaying, controls, etc. and substitutes equipment that is a like-kind substitution in certification, size, ratings, impedances, efficiencies or capabilities of the equipment; and/or (4) increases the DC/AC ratio but does not increase the maximum AC output capability of the Distributed Energy Resource in a way that is likely to have an impact on technical review.

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INTERCONNECTION PROCESS (MN DIP)  
(Continued)**

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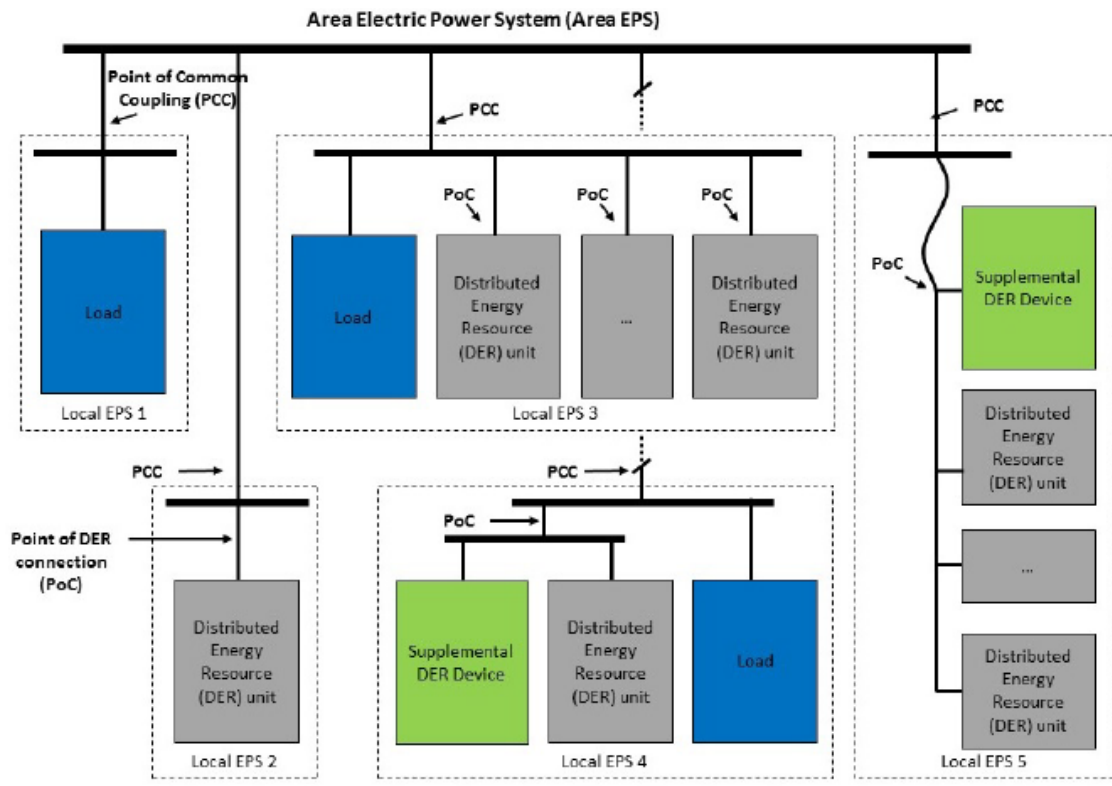
**Network Upgrades** – Additions, modifications, and upgrades to the Transmission System required at or beyond the point at which the DER interconnects with the Area EPS Operator’s System to accommodate the interconnection with the DER to the Area EPS Operator’s System. Network Upgrades do not include Distribution Upgrades.

**Notice of Dispute** – The disputing Party shall provide the other Party this written notice containing the relevant known facts pertaining to the dispute, the specific dispute and the relief sought, and express notice by the disputing Party that it is invoking the procedures under MN DIP 5.3.

**Operating Requirements** – Any operating and technical requirements that may be applicable due to the Transmission Provider’s technical requirements or Minnesota Technical Requirements, including those set forth in the MN DIA.

**Party or Parties** – The Area EPS Operator and the Interconnection Customer.

**Point of Common Coupling (PCC)** – The point where the Interconnection Facilities connect with the Area EPS Operator’s Distribution System. See figure 1. Equivalent, in most cases, to “service point” as specified by the Area EPS Operator and described in the National Electrical Code and the National Electrical Safety Code.



**Figure 1: Point of Common Coupling and Point of DER Connection**

(Source: IEEE 1547)

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INTERCONNECTION PROCESS (MN DIP)  
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**Point of DER Connection (PoC)** – When identified as the Reference Point of Applicability, the point where an individual DER is electrically connected in a Local EPS and meets the requirements of this standard exclusive of any load present in the respective part of the Local EPS (e.g., terminals of the inverter when no supplemental DER device is required.) For DER unit(s) that are not self-sufficient to meet the requirements without (a) supplemental DER device(s), the Point of DER Connection is the point where the requirements of this standard are met by DER in conjunction with (a) supplemental DER device(s) exclusive of any load present in the respective part of the Local EPS.

**Queue Position** – The order of a valid Interconnection Application, relative to all other pending valid Interconnection Applications, that is established based upon the date- and time- of receipt of the complete Interconnection Application as described in sections 1.5.2 and 1.8.

**Reasonable Efforts** – With respect to an action required to be attempted or taken by a Party under these procedures, efforts that are timely and consistent with Good Utility Practice and are otherwise substantially equivalent to those a Party would use to protect its own interests.

**Reference Point of Applicability** – The location, either the Point of Common Coupling or the Point of DER Connection, where the interconnection and interoperability performance requirements specified in IEEE 1547 apply. With mutual agreement, the Area EPS Operator and Customer may determine a point between the Point of Common Coupling and Point of DER Connection. See Minnesota DER Technical Interconnection and Interoperability Requirements for more information.

**Simplified Process** – The procedure for evaluating an Interconnection Application for a certified inverter-based DER no larger than 20 kW that uses the screens described in section 3.2. The Simplified Process includes simplified procedures. Attachment 2: Simplified Application Form includes a brief set of terms and conditions, and the option for Interconnection Agreement described in 1.1.5. See Section 2 Simplified Process.

**Study Process** – The procedure for evaluating an Interconnection Application that includes the Section 4 scoping meeting, system impact study, and facilities study.

**Tariff** – The Area EPS Operator's Tariff filed in compliance with the Minnesota Distributed Energy Resource Interconnection Procedures (MN DIP) and approved by the Minnesota Public Utilities Commission (MPUC or Commission).

**Transmission Owner** – The entity that owns, leases or otherwise possesses an interest in the portion of the Transmission System relevant to the Interconnection.

**Transmission Provider** – The entity (or its designated agent) that owns, leases, controls, or operates transmission facilities used for the transmission of electricity. The term Transmission Provider includes the Transmission Owner when the Transmission Owner is separate from the Transmission Provider. The Transmission Provider may include the Independent System Operator or Regional Transmission Operator.

**Transmission System** – The facilities owned, leased, controlled or operated by the Transmission Provider or the Transmission Owner that are used to provide transmission service. See the Commission's July 26, 2000 Order Adopting Boundary Guidelines for Distinguishing Transmission from Generation and Distribution Assets in Docket No. E-999/CI-99-1261.

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**MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2**

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**MINNESOTA DISTRIBUTED ENERGY RESOURCES  
INTERCONNECTION PROCESS (MN DIP)  
(Continued)**

Section No. 10  
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**Uniform Statewide Contract** – State of Minnesota’s standard, uniform contract that must be applied to all qualifying new and existing interconnections between a utility and DER having capacity less than 40 kilowatts if interconnecting with a cooperative or municipal utility, and 1,000 kilowatts if interconnecting with a public utility. (Minn. Rules 7835.9910)

**Upgrades** – The required additions and modifications to the Area EPS Operator’s Transmission or Distribution System at or beyond the Point of Interconnection. Upgrades may be Network Upgrades or Distribution Upgrades. Upgrades do not include Interconnection Facilities.

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**Attachment 1: Pre-Application Report Request Form**

Requests for an Interconnection Pre-Application Report shall include the information identified in Sections 1.4.1.1 through 1.4.1.8 of the Minnesota Distributed Energy Resource Interconnection Process (MN DIP) (and as provided in the fields below) to clearly and sufficiently identify the location of the proposed Point of Common Coupling and relevant project details.

Additionally, a non-refundable processing fee of \$300 is required as specified in Section 1.4.1 of the MN DIP.

Upon receipt of a complete Request Form (including site map) and processing fee, the Area EPS Operator shall provide a report containing as much of the data described in Section 1.4.2 as is pre-existing and available within 15 business days. A Pre-Application Report request does not obligate the Area EPS Operator to conduct a study or other analysis of the proposed project if data is not available.

1. Requestor Contact Information:

Name: \_\_\_\_\_  
Company Name (if applicable): \_\_\_\_\_  
Street Address: \_\_\_\_\_  
City/State/Zip: \_\_\_\_\_  
Phone Number: \_\_\_\_\_  
Email Address: \_\_\_\_\_

2. Project Information:

a) Project Name: \_\_\_\_\_

b) Planned Equipment:

DER Nameplate Rating: \_\_\_\_\_ kW  
DER Type: Inverter based Other \_\_\_\_\_  
DER Number of Phases: Single Three  
Service Voltage (120/240 V, 277/480 V, etc.): \_\_\_\_\_ V  
Stand-alone Generator (no onsite load)? Yes No  
Existing DER? Yes No  
Location of Existing DER (include county):  
\_\_\_\_\_

(Continued on Sheet No. 10-212)

Date Filed: \_\_\_\_\_ By: Christopher B. Clark Effective Date: \_\_\_\_\_  
President, Northern States Power Company, a Minnesota corporation  
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**MINNESOTA DISTRIBUTED ENERGY RESOURCES  
INTERCONNECTION PROCESS (MN DIP)  
(Continued)**

Section No. 10  
Original Sheet No. 212

c) Proposed Point of Common Coupling:

Note: The proposed Point of Common Coupling shall be defined by all or some combination of the below information, enough to clearly identify the location of the Point of Common Coupling.

Street Address: \_\_\_\_\_

City/State/Zip Code: \_\_\_\_\_

County: \_\_\_\_\_

Cross streets: \_\_\_\_\_

Latitude (in degrees/minutes/seconds or 6 decimal places): \_\_\_\_\_

Longitude: \_\_\_\_\_

Meter number: \_\_\_\_\_

Utility equipment number (e.g. pole number): \_\_\_\_\_

Other identifying information: \_\_\_\_\_

d) An attached Site Map is required that shows the following:

- True north
- Proposed project location, including general area of project
- Proposed service point location
- Major roads, streets and/or highways

3. Requestor Signature:

I understand that the confidentiality provisions of MN DIP Section 5.9 apply to the contents of the Pre-Application Report. The MN DIP Section 5.9, states in part as follows:

*"Each Party shall hold in confidence and shall not disclose Confidential Information, to any person (except employees, officers, representatives and agents, who agree to be bound by this section). Confidential Information shall be clearly marked as such on each page or otherwise affirmatively identified. ... Each Party shall employ at least the same standard of care to protect Confidential Information obtained from the other Party as it employs to protect its own Confidential Information. ... Each Party is entitled to equitable relief, by injunction or otherwise, to enforce its rights under this provision to prevent the release of Confidential Information without bond or proof of damages, and may seek other remedies available at law or in equity for breach of this provision."*

I understand that 1) the existence of "Available Capacity" in no way implies that an interconnection up to this level may be completed without impacts since there are many variables studied as part of the interconnection review process, 2) the distribution system is dynamic and subject to change and 3) data provided in the Pre-Application Report may become outdated and not useful at the time of submission of the complete Interconnection Request.

Name (type or print): \_\_\_\_\_

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

Pre-Application Report requests shall be submitted with attachments to the Company through its online portal available at [www.xcelenergy.com](http://www.xcelenergy.com) or other applicable URL. Only if the online portal is unavailable submit to Distributed Energy Resources at [MNDER@xcelenergy.com](mailto:MNDER@xcelenergy.com)

Fees shall be submitted online through the online application portal or Xcel Energy, Attn: Distributed Energy Resources, at P.O.Box 59 Minneapolis MN 55440-0059.

(Continued on Sheet No. 10-213)

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**MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2**

**MINNESOTA DISTRIBUTED ENERGY RESOURCES  
INTERCONNECTION PROCESS (MN DIP)  
(Continued)**

Section No. 10  
Original Sheet No. 214

AC Rated Nameplate Rating: \_\_\_\_\_ (kWac) \_\_\_\_\_ (kVAac) Single Phase  Three Phase

Export Capability Limited (e.g., through use of a control system, power relay(s), or other similar device settings of adjustments): Yes  No

If yes, describe: \_\_\_\_\_

DER capacity (as described in MN DIP 5.14.3): \_\_\_\_\_ (kWac)

Is equipment certified (i.e. UL 1741 Listed)?  Yes (Certification is a Simplified Process requirement)

Installed DER System Cost (before incentives): \_\_\_\_\_

Estimated Installation Date: \_\_\_\_\_

Interconnection Customer Signature [This Section must be completed by the Customer]

The simpler Uniform Statewide Contract replaces the longer Interconnection Agreement (MN DIA) if the conditions of MN DIP 1.1.5 are met. A qualifying customer signing a Uniform Statewide Contract may elect to be additionally provided the MN DIA. Request a MN DIA?:

\_\_\_\_\_ No  \_\_\_\_\_ Yes

Disclaimer: The Area EPS Operator shall notify the Interconnection Customer with an opportunity to request a timeline extension (See MN DIP Section 1.8.2 and 5.2.2.) Failure by the Interconnection Customer to meet or request an extension for a timeline outlined in the MN DIP could result in a withdrawn queue position and the need to re-apply. INITIAL: \_\_\_\_\_

I designate the individual or company listed as my Application Agent to serve as my agent for the purpose of coordinating with the Area EPS Operator on my behalf throughout the interconnection process (see MN DIP 1.3.2) INITIAL: \_\_\_\_\_

I hereby certify that, to the best of my knowledge, the information provided in this Application is true, and that I have appropriate Site Control in conformance with the MN DIP. I agree to abide by the Terms and Conditions for Interconnecting an Inverter-Based Distributed Energy Resource No Larger than 20 kW (Simplified Process) (see Exhibit A – Terms and Conditions for Interconnecting an Inverter-Based DER No Larger than 20 kW) and return the Certificate of Completion (see Exhibit C – Certificate of Completion) when the DER has been installed.

Interconnection Customer Signature: \_\_\_\_\_

Name (print): \_\_\_\_\_ Date: \_\_\_\_\_

*Send a completed and signed copy of this form with attachments to (Northern States Power Company through its online portal available at [www.xcelenergy.com](http://www.xcelenergy.com) or other applicable URL). Send application fee in electronic format as instructed by the online portal. Only if the online portal or electronic method of sending payment is not available, then mail materials to Xcel Energy, Distributed Energy Resources, 414 Nicollet Mall, Minneapolis, MN 55401.*

(Continued on Sheet No. 10-215)

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President, Northern States Power Company, a Minnesota corporation  
Docket No. E002/M-18-714 Order Date: \_\_\_\_\_

**Attachment 2: Simplified Application Form (cont'd)**

**Exhibit A – Terms and Conditions for Interconnecting an Inverter-Based DER No Larger than 20 kW**

1.0 Construction of the Facility

The Interconnection Customer (the "Customer") may proceed to construct (including operational testing not to exceed two hours) the Distributed Energy Resource(s) when the Area EPS Operator (Northern States Power Company, a Minnesota corporation, or the "Company") approves the Interconnection Application (the "Application").

2.0 Interconnection and Operation

The Customer may operate Distributed Energy Resource(s) and interconnect with the Company's electric system once all of the following have occurred:

2.1. Upon completing construction, the Customer will cause the Distributed Energy Resource(s) to be inspected or otherwise certified by the appropriate local electrical wiring inspector with jurisdiction, and

2.2. The Customer returns the Certificate of Completion to the Company, and

2.3. The Company:

2.3.1 Shall have the opportunity to witness test as described in Minnesota Technical Requirements, but takes no liability for the results of the test. Completes its inspection of the Distributed Energy Resource(s) to ensure that all equipment has been appropriately installed and that all electrical connections have been made in accordance with applicable codes and standards. All inspections must be conducted by the Company, at its own expense, within ten Business Days after receipt of the Certificate of Completion and shall take place at a time agreeable to the Parties. The Company shall provide a written permission to operate authorization that the Distributed Energy Resource(s) has passed inspection or shall notify the Customer of what steps it must take to pass inspection within three (3) Business Days.

or

2.3.2 Does not schedule an inspection of the Distributed Energy Resource(s) within ten business days after receiving the Certificate of Completion, in which case the witness test is deemed waived (unless the Parties agree otherwise).

or

2.3.3 Waives the right to inspect the Distributed Energy Resource(s).

(Continued on Sheet No. 10-216)

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2.4. The Company has the right to disconnect the Distributed Energy Resource(s) in the event of: 1) improper installation or failure to return the Certificate of Completion, or 2) does not meet any of the requirements of this Agreement or, 3) if applicable, refusal to sign Uniform Statewide Contract.

2.5. Revenue quality metering equipment must be installed and tested in accordance with applicable Minnesota Technical Requirements.

2.6. If the Distributed Energy Resource(s) either: 1) does not use default IEEE 1547-2018 functions and settings; or 2) is not yet subject to a developed national standard or national certification, then at the option of the Area EPS Operator there needs to be in place an operating agreement to document and govern the operation of the Distributed Energy Resource(s).

3.0 Safe Operations and Maintenance

The Customer shall be fully responsible to operate, maintain, and repair the Distributed Energy Resource(s) as required to ensure that it complies at all times with the interconnection standards to which it has been certified.

4.0 Access

The Company shall have access to the disconnect switch, if required by the Area EPS Operator, and metering equipment of the Distributed Energy Resource(s) at all times as described in Minnesota Technical Requirements. The Company shall provide reasonable notice to the Customer when possible prior to using its right of access.

5.0 Disconnection

The Company may temporarily disconnect the Distributed Energy Resource(s) upon the following conditions:

5.1. For scheduled outages upon reasonable notice.

5.2. For unscheduled outages or emergency conditions.

5.3. If the Distributed Energy Resource does not operate in the manner consistent with these Terms and Conditions.

5.4. The Company shall inform the Customer in advance of any scheduled disconnection, or as is reasonable after an unscheduled disconnection.

5.5. If the Customer is in Default it may be disconnected after a 60-day written notice is provided and the Default is not cured during this 60-day notice. This provision does not apply to disconnection based on outages or emergency conditions.

(Continued on Sheet No. 10-217)

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6.0 Treatment Similar to Other Retail Customers

6.1. The Customer may be disconnected consistent with the rules and practices for disconnecting other retail electrical customers

7.0 Indemnification

7.1. This provision protects each Party from liability incurred to third parties as a result of carrying out the provisions of this Agreement.

7.2. The Parties 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 to or death of any person or damage to property, demand, suits, recoveries, costs and expenses, court costs, attorney fees, and all other obligations by or to third parties, arising out of or resulting from the other Party's action or inactions of its obligations under this agreement on behalf of the indemnifying Party, except in cases of gross negligence or intentional wrongdoing by the indemnified Party.

7.3. This indemnification obligation shall apply notwithstanding any negligent or intentional acts, errors or omissions of the indemnified Party, but the indemnifying Party's liability to indemnify the indemnified Party shall be reduced in proportion to the percentage by which the indemnified Party's negligent or intentional acts, errors or omissions caused the damages.

7.4. Neither Party shall be indemnified for its damages resulting from its sole negligence, intentional acts or willful misconduct. These indemnity provisions shall not be construed to relieve any insurer of its obligation to pay claims consistent with the provisions of a valid insurance policy.

7.5. If an indemnified person is entitled to indemnification under this article as a result of a claim by a third party, and the indemnifying Party fails, after notice and reasonable opportunity to proceed under this article, to assume the defense of such claim, such indemnified person may at the expense of the indemnifying Party contest, settle or consent to the entry of any judgment with respect to, or pay in full, such claim.

7.6. If an indemnifying party is obligated to indemnify and hold any indemnified person harmless under this article, the amount owing to the indemnified person shall be the amount of such indemnified person's actual loss, net of any insurance or other recovery.

7.7. Promptly after receipt by an indemnified person of any claim or notice of the commencement of any action or administrative or legal proceeding or investigation as to which the indemnity provided for in this article may apply, the indemnified person shall notify the indemnifying party of such fact. Any failure of or delay in such notification shall not affect a Party's indemnification obligation unless such failure or delay is materially prejudicial to the indemnifying party.

(Continued on Sheet No. 10-218)

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8.0 Insurance

The Parties agree to follow all applicable insurance requirements imposed by Minnesota. All insurance policies must be maintained with insurers authorized to do business in Minnesota. See MN DIP Section 5.10.

9.0 Limitation of Liability

Each party's liability to the other party for any loss, cost, claim, injury, liability, or expense, including reasonable attorney's fees, relating to or arising from any act or omission in its performance of this Agreement, 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 indirect, incidental, special, consequential, or punitive damages of any kind whatsoever, except as allowed under paragraph 6.0.

10.0 Termination

The agreement to operate in parallel may be terminated under the following conditions:

10.1 By the Customer

By providing written notice to the Company.

10.2 By the Company

If the Distributed Energy Resource(s) fails to operate for any consecutive 12 month period or the Customer fails to remedy a violation of these Terms and Conditions.

10.3 Permanent Disconnection

In the event this Agreement is terminated, the Company shall have the right to disconnect its facilities or direct the Customer to disconnect its Distributed Energy Resource.

10.4 Survival Rights

This Agreement shall continue in effect after termination to the extent necessary to allow or require either Party to fulfill rights or obligations that arose under the Agreement.

11.0 Assignment/Transfer of Ownership of the Facility

This Agreement shall survive the transfer of ownership of the Distributed Energy Resource(s) to a new owner when the new owner agrees in writing to comply with the terms of this Agreement and so notifies the Company.

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(Continued on Sheet No. 10-219)

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**MINNESOTA DISTRIBUTED ENERGY RESOURCES  
INTERCONNECTION PROCESS (MN DIP)  
(Continued)**

Section No. 10  
Original Sheet No. 219

**Exhibit B - For Energy Storage**

Application for:  Stand-alone storage as the DER  
 Storage as a component of a DER

*This form is required in addition to a completed Minnesota DER Interconnection Process (MN DIP) Application form for any DER with an energy storage component. Additional information in the application may be required. See Minnesota Technical Requirements.*

*(An application to interconnect is required only for storage designed to operate in parallel with the grid. Backup generators and electric vehicles that do not parallel need not apply.)*

Customer Account Number: \_\_\_\_\_

Address of Generating Facility: \_\_\_\_\_

City: \_\_\_\_\_ State: MN Zip: \_\_\_\_\_

Equipment Manufacturer: \_\_\_\_\_

Equipment Model: \_\_\_\_\_

Real Power, max continuous (kW): \_\_\_\_\_

Apparent Power, max continuous (kVA): \_\_\_\_\_

Power factor range of adjustability: \_\_\_\_\_

Real Power, peak AC Energy (kWh): \_\_\_\_\_

Available control operating modes: \_\_\_\_\_

Control modes being enabled for interconnection: \_\_\_\_\_

Is equipment UL 1741 Listed?  Yes  No

*Manufacturer specification sheet(s) are required to be additionally attached.*

Is the storage 100% charged by a net energy metering eligible energy source?  Yes  No

Source charging the storage (check all that apply): \_\_\_\_\_ Utility \_\_\_\_\_ Solar \_\_\_\_\_ Wind \_\_\_\_\_ Diesel  
Other: \_\_\_\_\_

Is the storage configured to export energy to the Area EPS?  Yes  No

Are the settings accessible to the end user?  Yes  No

For non-export, how does the system determine the magnitude of customer load?  
\_\_\_\_\_

What is the process for changing operational modes of the energy storage?  
\_\_\_\_\_  
\_\_\_\_\_

(Continued on Sheet No. 10-220)

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President, Northern States Power Company, a Minnesota corporation  
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**Exhibit C – Certificate of Completion**

**Distributed Energy Resource Certificate of Completion**

**MN DIP Simplified Process Interconnection**

Customer: \_\_\_\_\_

Account Number: \_\_\_\_\_ Meter Number: \_\_\_\_\_

Application ID number: \_\_\_\_\_

Address of Distributed Energy Resource (DER):  
\_\_\_\_\_

City: \_\_\_\_\_ State: MN Zip: \_\_\_\_\_

Is the DER owner-installed? Yes No If no: Install

Company: \_\_\_\_\_

Contact: \_\_\_\_\_

Phone: \_\_\_\_\_ Email: \_\_\_\_\_

Electrician Name / License#: \_\_\_\_\_

*The DER has been installed and inspected in compliance with the local electrical permitting authority as verified by the signature below or the additionally attached document.*

Inspector Signature: \_\_\_\_\_

Print Name: \_\_\_\_\_ Date: \_\_\_\_\_

Authority Having Jurisdiction (city/county): \_\_\_\_\_

*As a condition of interconnection, electronically submit this completed form through the Area EPS Operator's online portal. Only if this online portal is not available, email a completed copy of this form to Northern States Power Company Distributed Energy Resources at [MNDER@xcelenergy.com](mailto:MNDER@xcelenergy.com) If the online portal is not available, you may also mail the form to: Xcel Energy, Distributed Energy Resources, 414 Nicollet Mall, Minneapolis, MN 55401.*

(Continued on Sheet No. 10-221)

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**MINNESOTA DISTRIBUTED ENERGY RESOURCES  
INTERCONNECTION PROCESS (MN DIP)  
(Continued)**

Section No. 10  
Original Sheet No. 221

**Attachment 3: Interconnection Application Form**

**MINNESOTA DISTRIBUTED ENERGY RESOURCES**

**INTERCONNECTION APPLICATION (Form Template)**

This form is for Distributed Energy Resources (DERs) that meets the eligibility of the Minnesota Interconnection Process (see Section 1.1) and are not eligible for consideration under the Section 2 Simplified Process.

This Application is considered complete when it provides all applicable and correct information required below. Additional technical data may be necessary prior to the system impact study process as described in 4.3.3, if applicable, but is not relevant to application completeness. The following additional information must be submitted with an application:

- Single Line Diagram       Proof of Site Control (see Section 1.7) and Site Diagram       Specification Sheet(s)

A DER with an energy storage component must additionally complete Exhibit B – For Energy Storage

Application is for:

- New DER(s)       Capacity addition or Material Modification to Existing DER (see MN DIP Glossary of Terms.)

Select Review Process:

- Fast Track Process       Study Process

Confirm eligibility requirements at MN DIP Section 3.1

[For Certified Equipment, the processing fee shall be \$100 + \$1/kW. For non-certified DER, the processing fee shall be \$100 + \$2/kW.]

Confirm eligibility requirements at MN DIP Section 4.

[The processing fee shall be a deposit of \$1,000 plus \$2.00 per kW towards the cost of the first study under Section 4 Study Process.]

Additional fees or deposits shall not be required, except as otherwise specified in the MN DIP.

(Continued on Sheet No. 10-222)

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**MINNESOTA DISTRIBUTED ENERGY RESOURCES  
INTERCONNECTION PROCESS (MN DIP)  
(Continued)**

Section No. 10  
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Interconnection Customer/Owner

Name:

Account Number:

Meter Number:

Mailing Address:

Telephone:

Email:

[If different,] Application

Agent/Company:

Telephone:

Email:

If capacity addition or Material Modification to existing facility, please describe:

Will the DER be used for any of the following?

Net Metering? Yes \_\_\_\_\_ No \_\_\_\_\_

To Supply Power to the Interconnection Customer? Yes \_\_\_\_\_ No \_\_\_\_\_

To Supply Power to Area EPS? Yes \_\_\_\_\_ No \_\_\_\_\_

Requested Point of Common Coupling (at a minimum, provide: 1) an address or nearest cross-section and 2) GPS coordinates or an annotated aerial map):

Installed DER System Cost (before incentives): \_\_\_\_\_

Interconnection Customer's Requested In-Service Date:

**Distributed Energy Resource Information**

Data applies only to the Distributed Energy Resource not the Interconnection Facilities.

Energy Source:

Solar

Wind

Storage

Hydro Type (e.g. Run-of-River):

Diesel

Natural  
Gas

Fuel Oil

Other (state type, e.g. solar + wind + storage):

(Continued on Sheet No. 10-223)

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**MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2**

**MINNESOTA DISTRIBUTED ENERGY RESOURCES  
INTERCONNECTION PROCESS (MN DIP)  
(Continued)**

Section No. 10  
Original Sheet No. 223

Prime Mover:

- Photovoltaic     Microturbine     Reciprocating Engine     Fuel Cell  
 Gas Turbine     Steam Turbine     Wind Turbine     Other (state type):

Type of Generator:     Inverter     Synchronous     Induction

DER Nameplate Rating (in kWac):

DER Nameplate kVAR:

Interconnection Customer or Customer-  
Sited Load (in kW, if none, so state):

Typical Reactive Load (if  
known):

Maximum Physical Export Capability  
Requested (in kW):

Export Capability Limited (e.g., through use of a control system, power relay(s), or other similar device settings of  
adjustments):     Yes     No

If yes, describe: \_\_\_\_\_

List components of the Distributed Energy Resource Certified Equipment:

<u>Equipment Type</u>	<u>Certifying Entity</u>
1. _____	_____
2. _____	_____
3. _____	_____
4. _____	_____
5. _____	_____

Is the prime mover compatible with the certified protective relay package?     Yes     No

Distributed Energy Resource  
Manufacturer, Model Name & Number:

Version Number:

Nameplate Rating in kW:    (Summer):    (Winter):

Nameplate Rating in kVA:    (Summer):    (Winter):

(Continued on Sheet No. 10-224)

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**MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2**

**MINNESOTA DISTRIBUTED ENERGY RESOURCES  
INTERCONNECTION PROCESS (MN DIP)  
(Continued)**

Section No. 10  
Original Sheet No. 225

Induction Generators:

Motoring Power (kW):  
I22t or K (Heating Time  
Constant):

Rotor Resistance, Rr:  
Stator Resistance, Rs:  
Stator Reactance, Xs:

Rotor Reactance, Xr

Magnetizing Reactance,  
Xm:

Short Circuit Reactance,  
Xd'':

Note: Please contact the Area EPS Operator prior to submitting the Interconnection Application to determine if the specified information above is required.

Excitation and Governor System Data for Synchronous Generators Only

Provide appropriate IEEE model block diagram of excitation system, governor system and power system stabilizer (PSS) in accordance with the regional reliability council criteria. A PSS may be determined to be required by applicable studies. A copy of the manufacturer's block diagram may not be substituted.

**Interconnection Facilities Information**

Will a transformer be used between the DER and the Point of Common Coupling?

Yes  No

Will the transformer be provided by the Interconnection Customer?

Yes  No

Transformer Data (If Applicable, for Interconnection Customer-Owned Transformer):

Is the transformer:  Single Phase  Three Phase

Size (kVA): Transformer on kVA Base:  
Impedance (%):

If Three Phase:

<u>Transformer</u>	<u>Volts:</u>	<u>Delta:</u>	<u>Wye:</u>	<u>Wye</u>
<u>Primary:</u>				<u>Grounded:</u>
<u>Transformer</u>	<u>Volts:</u>	<u>Delta:</u>	<u>Wye:</u>	<u>Wye</u>
<u>Secondary:</u>				<u>Grounded:</u>
<u>Transformer</u>	<u>Volts:</u>	<u>Delta:</u>	<u>Wye:</u>	<u>Wye</u>
<u>Tertiary:</u>				<u>Grounded:</u>

(Continued on Sheet No. 10-226)

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**MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2**

**MINNESOTA DISTRIBUTED ENERGY RESOURCES  
INTERCONNECTION PROCESS (MN DIP)  
(Continued)**

Section No. 10  
Original Sheet No. 226

Transformer Fuse Data (If Applicable, for Interconnection Customer-Owned Fuse):

(Attach copy of fuse manufacturer's Minimum Melt and Total Clearing Time-Current Curves)

Manufacturer: \_\_\_\_\_ Type: \_\_\_\_\_ Size: \_\_\_\_\_ Speed: \_\_\_\_\_

Interconnecting Circuit Breaker (if applicable):

Manufacturer: \_\_\_\_\_ Type: \_\_\_\_\_

Load Rating \_\_\_\_\_ Interrupting Rating \_\_\_\_\_ Trip Speed  
(Amps) \_\_\_\_\_ (Amps): \_\_\_\_\_ (Cycles): \_\_\_\_\_

Interconnection Protective Relays (If Applicable):

If Microprocessor-Controlled:

List of Functions and Adjustable Setpoints for the protective equipment or software: \_\_\_\_\_

	<u>Setpoint Function</u>	<u>Minimum</u>	<u>Maximum</u>
1.	_____	_____	_____
2.	_____	_____	_____
3.	_____	_____	_____
4.	_____	_____	_____
5.	_____	_____	_____
6.	_____	_____	_____

If Discrete Components:

(Enclose Copy of any Proposed Time-Overcurrent Coordination Curves)

<u>Manufacturer:</u> _____	<u>Type:</u> _____	<u>Style/Catalog No.:</u> _____	<u>Proposed Setting:</u> _____
<u>Manufacturer:</u> _____	<u>Type:</u> _____	<u>Style/Catalog No.:</u> _____	<u>Proposed Setting:</u> _____
<u>Manufacturer:</u> _____	<u>Type:</u> _____	<u>Style/Catalog No.:</u> _____	<u>Proposed Setting:</u> _____
<u>Manufacturer:</u> _____	<u>Type:</u> _____	<u>Style/Catalog No.:</u> _____	<u>Proposed Setting:</u> _____
<u>Manufacturer:</u> _____	<u>Type:</u> _____	<u>Style/Catalog No.:</u> _____	<u>Proposed Setting:</u> _____

Current Transformer Data (If Applicable):

(Enclose Copy of Manufacturer's Excitation and Ratio Correction Curves)

Manufacturer: \_\_\_\_\_

Type: \_\_\_\_\_ Accuracy \_\_\_\_\_ Proposed  
Class: \_\_\_\_\_ Ratio  
Connection: \_\_\_\_\_

Manufacturer: \_\_\_\_\_

Type: \_\_\_\_\_ Accuracy \_\_\_\_\_ Proposed  
Class: \_\_\_\_\_ Ratio  
Connection: \_\_\_\_\_

(Continued on Sheet No. 10-227)

Potential Transformer Data (If Applicable):

Manufacturer:

Type:

Accuracy

Proposed

Class:

Ratio

Connection:

Manufacturer:

Type:

Accuracy

Proposed

Class:

Ratio

Connection:

**General Information**

Enclose copy of site electrical one-line diagram showing the configuration of all DER equipment, current and potential circuits, and protection and control schemes. The one-line diagram shall include:

Interconnection Customer name.

Application ID (or, if applicable, Customer account number)

Installer name and contact information.

Install address- must match application address.

Correct positions of all equipment, including but not limited to panels, inverter, and DC/AC disconnect. Include distances between equipment, and any labeling found on equipment. See Minnesota Technical Requirements.

This one-line diagram must be signed and stamped by a Professional Engineer licensed in Minnesota if the DER is larger than 50 kW (if uncertified) and 250 kW (if certified.)

Is One-Line Diagram Enclosed?

Yes  No

Enclose copy of any site documentation that indicates the precise physical location of the proposed Distributed Energy Resource (e.g., USGS topographic map or other diagram or documentation). Is Available Documentation Enclosed?

Proposed location of protective interface equipment on property (include address if different from the Interconnection Customer's address)

(Continued on Sheet No. 10-228)

Date Filed:

By: Christopher B. Clark

Effective Date:

President, Northern States Power Company, a Minnesota corporation

Docket No. E002/M-18-714

Order Date:



**MINNESOTA DISTRIBUTED ENERGY RESOURCES  
INTERCONNECTION PROCESS (MN DIP)  
(Continued)**

Section No. 10  
Original Sheet No. 228

Enclose copy of any site documentation that describes and details the operation of the protection and control schemes. Is Available Documentation Enclosed?

Yes  No

Enclose copies of schematic drawings for all protection and control circuits, relay current circuits, relay potential circuits, and alarm/monitoring circuits (if applicable).

Are Schematic Drawings Enclosed?

Yes  No

Enclose copies of documentation showing site control (MN DIP Section 1.7)

Is Available Documentation Enclosed?

Yes  No

Disclaimer: The Area EPS Operator shall notify the Interconnection Customer with an opportunity to request a timeline extension (See MN DIP Section 1.8.2 and 5.2.3.). Failure by the Interconnection Customer to meet and request an extension as described in MN DIP Section 5.2.3 for a timeline outlined in the MN DIP could result in a withdrawn queue position and the need to re-apply. INITIAL: \_\_\_\_\_

**Interconnection Customer Signature**

I hereby certify that, to the best of my knowledge, all the information provided in this Interconnection Application is true and correct.

Interconnection Customer:

Date:

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(Continued on Sheet No. 10-229)

Date Filed:

By: Christopher B. Clark

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President, Northern States Power Company, a Minnesota corporation

Docket No. E002/M-18-714

Order Date:

**Attachment 4: Certification Codes and Standards**

Prior to Commission approval of the update of Minnesota Technical Requirements (anticipated in February 2019), the existing Minnesota Technical Requirements and the following standards shall be used in conjunction with the Minnesota Interconnection Process (MN DIP) and Minnesota Interconnection Agreement (MN DIA) for Distributed Energy Resources.<sup>1</sup> Once approved, the Minnesota DER Technical Interconnection and Interoperability Requirements will supersede this attachment.

When the stated version of the following standards is superseded by an approved revision then that revision shall apply.

IEEE 1547-2003 IEEE Standard for Interconnecting Distributed Resources with Electric Power Systems

IEEE 1547a-2014 IEEE Standard for Interconnecting Distributed Resources with Electric Power Systems – Amendment 1

IEEE 1547.1-2005 IEEE Standard Conformance Test Procedures for Equipment Interconnecting Distributed Resources with Electric Power Systems

IEEE 1547.1a-2015 (Amendment to IEEE Std 1547.1 – 2005) IEEE Standard Conformance Test Procedures for Equipment Interconnecting Distributed Resources with Electric Power Systems – Amendment 1

UL 1741 Inverters, Converters, Controllers, and Interconnection System Equipment for Use in Distributed Energy Resources (2010)

NFPA 70 (2017), National Electrical Code

IEEE Std C37.90.1(2012) (Revision of IEEE Std C37.90.1-2002), IEEE Standard for Surge Withstand Capability (SWC) Tests for Protective Relays and Relay Systems Associated with Electric Power Apparatus

IEEE Std C37.90.2 (2004) (Revision of IEEE Std C37.90.2-1995), IEEE Standard for Withstand Capability of Relay Systems to Radiated Electromagnetic Interference from Transceivers

IEEE Std C37.108-2002/1989 (Revision of C37.108-1989/2002), IEEE Guide for the Protection of Network Transformers

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<sup>1</sup> This is an interim document while the Commission updates the Minnesota Distributed Energy Resource Interconnection and Interoperability Technical Requirements which includes alignment with the anticipated final IEEE 1547-2018 revision. For the transition period between Minnesota’s existing statewide interconnection standards and the updated standards, both inverters certified to existing 1547.1 and 1547.1a-2015 (most current version); as well as, certified inverters per the expected revised 1547.1 standard should be acceptable.

(Continued on Sheet No. 10-230)

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[IEEE Std C57.12.44-2014 \(Revision of IEEE Std C57.12.44-2005\), IEEE Standard Requirements for Secondary Network Protectors](#)

[IEEE Std C62.41.2-2002, IEEE Recommended Practice on Characterization of Surges in Low-Voltage \(1000V and Less\) AC Power Circuits](#)

[IEEE Std C62.41.2-2002 Cor 1-2012 \(Corrigendum to IEEE Std C62.41.2-2002\) - IEEE Recommended Practice on Characterization of Surges in Low-Voltage \(1000 V and Less\) AC Power Circuits Corrigendum 1: Deletion of Table A.2 and Associated Text](#)

[IEEE Std C62.45-2002 \(Revision of IEEE Std C62.45-1992\) - IEEE Recommended Practice on Surge Testing for Equipment Connected to Low-Voltage \(1000 V and less\) AC Power Circuits](#)

[ANSI C84.1-\(2016\) Electric Power Systems and Equipment – Voltage Ratings \(60 Hertz\)](#)

[IEEE Standards Dictionary Online, \[Online\]](#)

[NEMA MG 1-2016, Motors and Generators](#)

[IEEE Std 519-2014, IEEE Recommended Practices and Requirements for Harmonic Control in Electrical Power Systems](#)

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(Continued on Sheet No. 10-231)

Date Filed:

By: Christopher B. Clark

Effective Date:

President, Northern States Power Company, a Minnesota corporation

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Order Date:

**Attachment 5: Certification of Distributed Energy Resource Equipment**

- 1.0 Distributed Energy Resource (DER) equipment proposed for use in an interconnection system shall be considered certified for interconnected operation if: 1) it has been tested in accordance with industry standards for continuous utility interactive operation in compliance with the appropriate codes and standards referenced below by any Nationally Recognized Testing Laboratory (NRTL) recognized by the United States Occupational Safety and Health Administration to test and certify interconnection equipment pursuant to the relevant codes and standards listed in MN DIP Attachment 4, 2) it has been labeled and is publicly listed by such NRTL at the time of the interconnection application, and 3) such NRTL makes readily available for verification all test standards and procedures it utilized in performing such equipment certification, and, with consumer approval, the test data itself. The NRTL may make such information available on its website and by encouraging such information to be included in the manufacturer's literature accompanying the equipment.
- 2.0 The Interconnection Customer must verify that the assembly and use of the equipment falls within the use or uses for which the equipment was tested, labeled, and listed by the NRTL.
- 3.0 Certified equipment shall not require further type-test review, testing, or additional equipment to meet the requirements of this interconnection procedure; however, nothing herein shall preclude the need for a DER Design Evaluation or an on-site commissioning test by the parties to the interconnection as provided for in the Minnesota Technical Requirements.
- 4.0 If the certified equipment package includes only interface components (switchgear, inverters, or other interface devices), then an Interconnection Customer must show that the generator or other electric source being utilized with the equipment package is compatible with the equipment package and is consistent with the testing and listing specified for this type of interconnection equipment.
- 5.0 Provided the generator or electric source, when combined with the equipment package, is within the range of capabilities for which it was tested by the NRTL, and does not violate the interface components' labeling and listing performed by the NRTL, no further type-test review, testing or additional equipment on the customer side of the Point of Common Coupling shall be required to be considered certified for the purposes of this interconnection procedure; however, nothing herein shall preclude the need for a DER Design Evaluation or an on-site commissioning test by the parties to the interconnection as provided for in the Minnesota Technical Requirements.
- 6.0 An equipment package does not include equipment provided by the Area EPS.

(Continued on Sheet No. 10-232)

Date Filed:

By: Christopher B. Clark

Effective Date:

President, Northern States Power Company, a Minnesota corporation

Docket No. E002/M-18-714

Order Date:

**Attachment 6: System Impact Study Agreement**

THIS AGREEMENT is made and entered into this \_\_\_\_\_ day of \_\_\_\_\_

20\_\_\_\_\_ by and between \_\_\_\_\_,

a \_\_\_\_\_ organized and existing under the laws of the State of \_\_\_\_\_

, (“Interconnection Customer”), and Northern States Power Company, a Minnesota corporation, doing business as Xcel Energy (“Area EPS Operator”). Interconnection Customer and Area EPS Operator each may be referred to as a “Party,” or collectively as the “Parties.”

**RECITALS**

**WHEREAS**, the Interconnection Customer is proposing to develop a Distributed Energy Resource (DER) or generating capacity addition to an existing DER consistent with the Interconnection Application completed by the Interconnection Customer on \_\_\_\_\_; and

**WHEREAS**, the Interconnection Customer desires to interconnect the DER with the Area EPS Operator’s electric system;

**WHEREAS**, the Interconnection Customer has requested the Area EPS Operator to perform a system impact study(s) to assess the impact of interconnecting the DER with the Area EPS Operator’s electric System, and potential Affected System(s);

**NOW, THEREFORE**, in consideration of and subject to the mutual covenants contained herein the Parties agreed as follows:

- 1.0 When used in this Agreement, with initial capitalization, the terms specified shall have the meanings indicated or the meanings specified in the standard Minnesota Distributed Energy Resources Interconnection Procedures (MN DIP.)
- 2.0 The Interconnection Customer elects and the Area EPS Operator shall cause to be performed a system impact study(s) consistent with the MN DIP. The scope of a system impact study shall be subject to the assumptions set forth in this Agreement; including Attachment A.
- 3.0 A system impact study will be based upon the technical information provided by Interconnection Customer in the Interconnection Application. The Area EPS Operator reserves the right to request additional technical information from the Interconnection Customer as may reasonably become necessary consistent with Good Utility Practice during the course of the system impact study.

(Continued on Sheet No. 10-233)

Date Filed: \_\_\_\_\_ By: Christopher B. Clark Effective Date: \_\_\_\_\_  
President, Northern States Power Company, a Minnesota corporation  
Docket No. E002/M-18-714 Order Date: \_\_\_\_\_

- 4.0 A system impact study may, as necessary, consist of a short circuit analysis, a stability analysis, a power flow analysis, voltage drop and flicker studies, protection and set point coordination studies, and grounding reviews. A system impact study shall state the assumptions upon which it is based, state the results of the analyses, and provide the requirement or potential impediments to providing the requested interconnection service, including a preliminary indication of the cost and length of time that would be necessary to correct any problems identified in those analyses and implement the interconnection. A system impact study shall provide a list of facilities that are required as a result of the Interconnection Application and non-binding good faith estimates of cost responsibility and time to construct.
- 5.0 A distribution system impact study shall incorporate a distribution load flow study, an analysis of equipment interrupting ratings, protection coordination study, voltage drop and flicker studies, protection and set point coordination studies, grounding reviews, and the impact on electric system operation, as necessary.
- 6.0 Affected Systems may participate in the preparation of a system impact study, with a division of costs among such entities as they may agree. All Affected Systems shall be afforded an opportunity to review and comment upon a system impact study that covers potential adverse system impacts on their electric systems.
- 7.0 If the Area EPS Operator uses a queuing procedure for sorting or prioritizing projects and their associated cost responsibilities for any required Network Upgrades, the system impact study shall consider all Distributed Energy Resources (and with respect to paragraph 7.3 below, any identified Upgrades associated with such higher queued interconnection) that, on the date the system impact study is commenced –
- 7.1. Are directly interconnected with the Area EPS Operator's electric system; or
- 7.2. Are interconnected with Affected Systems and may have an impact on the proposed interconnection; and
- 7.3. Have a pending higher queued Interconnection Application to interconnect with the Area EPS Operator's electric system.
- 8.0 A deposit of the equivalent of the good faith estimated cost of a distribution system impact study and the good faith estimated cost of a transmission system impact study shall be required from the Interconnection Customer when the signed Agreement is provided to the Area EPS Operator.
- 9.0 Any study fees shall be based on the Area EPS Operator's actual costs and will be invoiced to the Interconnection Customer within 20 Business Days after the study is completed and delivered and will include a summary of professional time.
- 10.0 The Interconnection Customer must pay any study costs that exceed the deposit without interest within 20 Business Days on receipt of the invoice or resolution of any dispute. If the deposit exceeds the invoiced fees, the Area EPS Operator shall refund such excess within 20 Business Days of the invoice without interest.

(Continued on Sheet No. 10-234)

Date Filed:

By: Christopher B. Clark

Effective Date:

President, Northern States Power Company, a Minnesota corporation

Docket No. E002/M-18-714

Order Date:

MINNESOTA DISTRIBUTED ENERGY RESOURCES  
INTERCONNECTION PROCESS (MN DIP)  
(Continued)

Section No. 10  
Original Sheet No. 234

11.0 Governing Law, Regulatory Authority, and Rules

The validity, interpretation and enforcement of this Agreement and each of its provisions shall be governed by the laws of the state of Minnesota. This Agreement is subject to all Applicable Laws and Regulations. Each Party expressly reserves the right to seek changes in, appeal, or otherwise contest any laws, orders, or regulations of a Governmental Authority.

12.0 Amendment

The Parties may amend this Agreement by a written instrument duly executed by both Parties.

13.0 No Third-Party Beneficiaries

This Agreement is not intended to and does not create rights, remedies, or benefits of any character whatsoever in favor of any persons, corporations, associations, or entities other than the Parties, and the obligations herein assumed are solely for the use and benefit of the Parties, their successors in interest and where permitted, their assigns.

14.0 Waiver

14.1. The failure of a Party to this Agreement to insist, on any occasion, upon strict performance of any provision of this Agreement will not be considered a waiver of any obligation, right, or duty of, or imposed upon, such Party.

14.2. Any waiver at any time by either Party of its rights with respect to this Agreement shall not be deemed a continuing waiver or a waiver with respect to any other failure to comply with any other obligation, right, duty of this Agreement. Termination or default of this Agreement for any reason by Interconnection Customer shall not constitute a waiver of the Interconnection Customer's legal rights to obtain an interconnection from the Area EPS Operator. Any waiver of this Agreement shall, if requested, be provided in writing.

15.0 Multiple Counterparts

This Agreement may be executed in two or more counterparts, each of which is deemed an original but all constitute one and the same instrument. Electronic signatures are acceptable if the Area EPS Operator has made such a determination pursuant to MN DIP 1.2.1.1.

16.0 No Partnership

This Agreement shall not be interpreted or construed to create an association, joint venture, agency relationship, or partnership between the Parties or to impose any partnership obligation or partnership liability upon either Party. Neither Party shall have any right, power or authority to enter into any agreement or undertaking for, or act on behalf of, or to act as or be an agent or representative of, or to otherwise bind, the other Party.

(Continued on Sheet No. 10-235)

Date Filed:

By: Christopher B. Clark

Effective Date:

President, Northern States Power Company, a Minnesota corporation

Docket No. E002/M-18-714

Order Date:





**MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2**

**MINNESOTA DISTRIBUTED ENERGY RESOURCES  
INTERCONNECTION PROCESS (MN DIP)  
(Continued)**

Section No. 10  
Original Sheet No. 236

IN WITNESS THEREOF, the Parties have caused this Agreement to be duly executed by their duly authorized officers or agents on the day and year first above written.

<b><u>Northern States Power Company, a Minnesota corporation</u></b> <b><u>(Area EPS Operator)</u></b>	_____
<b><u>(Interconnection Customer)</u></b>	
Signed: _____	Signed: _____
Name (Printed): _____	Name (Printed): _____
Title: _____	Title: _____

N  
N

(Continued on Sheet No. 10-237)

Date Filed: \_\_\_\_\_ By: Christopher B. Clark Effective Date: \_\_\_\_\_  
President, Northern States Power Company, a Minnesota corporation  
Docket No. E002/M-18-714 Order Date: \_\_\_\_\_

**Attachment 6: System Impact Study Agreement (cont'd)**

**Attachment A**

**Assumptions Used in Conducting the System Impact Study**

The system impact study shall be based upon the following assumptions:

- 1) Designation of Point of Common Coupling and configuration to be studied.
- 2) Designation of alternative Points of DER Interconnection and configuration.

1) and 2) are to be completed by the Interconnection Customer. Other assumptions (listed below) are to be provided by the Interconnection Customer and the Area EPS Operator. The Area EPS Operator shall use the Reference Point for Applicability which is either the Point of Common Coupling or the Point(s) of DER Interconnection as described in IEEE 1547.

**Additional DER technical data required for System Impact Study**

If applicable, the Area EPS Operator shall list below any additional technical data that is required to adequately perform the System Impact Study. As indicated in MN DIP section 4.3.3, this information is to be returned with the signed system impact study agreement and deposit.

N

N

(Continued on Sheet No. 10-238)

Date Filed: By: Christopher B. Clark Effective Date:  
President, Northern States Power Company, a Minnesota corporation  
Docket No. E002/M-18-714 Order Date:

**Attachment 7: Facilities Study Agreement**

THIS AGREEMENT is made and entered into this \_\_\_\_\_ day of \_\_\_\_\_ 20\_\_\_\_ by and between \_\_\_\_\_, a \_\_\_\_\_ organized and existing under the laws of the State of \_\_\_\_\_, ("Interconnection Customer,") and Northern States Power Company, a Minnesota corporation, doing business as Xcel Energy, ("Area EPS Operator"). Interconnection Customer and Area EPS Operator each may be referred to as a "Party," or collectively as the "Parties."

**RECITALS**

WHEREAS, the Interconnection Customer is proposing to develop a Distributed Energy Resource or generating capacity addition to an existing Distributed Energy Resource consistent with the Interconnection Application completed by the Interconnection Customer on \_\_\_\_\_; and

WHEREAS, the Interconnection Customer desires to interconnect the Distributed Energy Resource with the Area EPS Operator's Distribution System;

WHEREAS, the Area EPS Operator has completed Initial Review, Supplemental Review, and/or a system impact study and provided the results of said review to the Interconnection Customer, or determined none was required; and

WHEREAS, the Interconnection Customer has requested the Area EPS Operator to perform a facilities study to specify, and estimate the cost of, the equipment, engineering, procurement and construction work needed to implement the conclusions of the above noted review in accordance with Good Utility Practice to physically and electrically connect the Distributed Energy Resource with the Area EPS Operator's Distribution System.

NOW, THEREFORE, in consideration of and subject to the mutual covenants contained herein the Parties agreed as follows:

- 1.0 When used in this Agreement, with initial capitalization, the terms specified shall have the meanings indicated or the meanings specified in the standard State of Minnesota Distributed Energy Resources Interconnection Procedures (MN DIP).
- 2.0 The Interconnection Customer elects and the Area EPS Operator shall cause a facilities study consistent with the standard MN DIP to be performed. The scope of the facilities study shall be subject to data provided in Attachment A to this Agreement.
- 3.0 The facilities study shall specify and estimate the cost of the equipment, engineering, procurement and construction work (including overheads) needed to implement the conclusions of the system impact study(s). The facilities study shall also identify: 1) the electrical switching configuration of the equipment, including, without limitation, transformer, switchgear, meters, and other station equipment, 2) the nature and estimated cost of the Area EPS Operator's Interconnection Facilities and Upgrades necessary to accomplish the interconnection, and 3) an estimate of the time required to complete the construction and installation of such facilities.

(Continued on Sheet No. 10-239)

Date Filed: \_\_\_\_\_ By: Christopher B. Clark Effective Date: \_\_\_\_\_  
President, Northern States Power Company, a Minnesota corporation  
Docket No. E002/M-18-714 Order Date: \_\_\_\_\_

4.0 The Area EPS Operator may propose to group facilities required for more than one Interconnection Customer in order to minimize facilities costs through economies of scale, but any Interconnection Customer may require the installation of facilities required for its own Distributed Energy Resource if it is willing to pay the costs of those facilities.

5.0 A deposit of the good faith estimate of the facilities study costs shall be required from the Interconnection Customer and provided when the signed Agreement is provided to the Area EPS Operator.

6.0 Any study fees shall be based on the Area EPS Operator's actual costs and will be invoiced to the Interconnection Customer within 20 Business Days after the study is completed and delivered and will include a summary of professional time.

7.0 The Interconnection Customer must pay any study costs that exceed the deposit without interest within 20 Business Days on receipt of the invoice or resolution of any dispute. If the deposit exceeds the invoiced fees, the Area EPS Operator shall refund such excess within 20 Business Days of the invoice without interest.

8.0 Governing Law, Regulatory Authority, and Rules

The validity, interpretation and enforcement of this Agreement and each of its provisions shall be governed by the laws of the state of Minnesota. This Agreement is subject to all Applicable Laws and Regulations. Each Party expressly reserves the right to seek changes in, appeal, or otherwise contest any laws, orders, or regulations of a Governmental Authority.

9.0 Amendment

The Parties may amend this Agreement by a written instrument duly executed by both Parties.

10.0 No Third-Party Beneficiaries

This Agreement is not intended to and does not create rights, remedies, or benefits of any character whatsoever in favor of any persons, corporations, associations, or entities other than the Parties, and the obligations herein assumed are solely for the use and benefit of the Parties, their successors in interest and where permitted, their assigns.

11.0 Waiver

11.1 The failure of a Party to this Agreement to insist, on any occasion, upon strict performance of any provision of this Agreement will not be considered a waiver of any obligation, right, or duty of, or imposed upon, such Party.

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(Continued on Sheet No. 10-240)

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Date Filed:

By: Christopher B. Clark

Effective Date:

President, Northern States Power Company, a Minnesota corporation

Docket No. E002/M-18-714

Order Date:

N

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11.2. Any waiver at any time by either Party of its rights with respect to this Agreement shall not be deemed a continuing waiver or a waiver with respect to any other failure to comply with any other obligation, right, duty of this Agreement. Termination or default of this Agreement for any reason by Interconnection Customer shall not constitute a waiver of the Interconnection Customer's legal rights to obtain an interconnection from the Area EPS Operator. Any waiver of this Agreement shall, if requested, be provided in writing.

12.0 Multiple Counterparts

This Agreement may be executed in two or more counterparts, each of which is deemed an original but all constitute one and the same instrument. Electronic signatures are acceptable if the Area EPS Operator has made such a determination pursuant to MN DIP 1.2.1.1.

13.0 No Partnership

This Agreement shall not be interpreted or construed to create an association, joint venture, agency relationship, or partnership between the Parties or to impose any partnership obligation or partnership liability upon either Party. Neither Party shall have any right, power or authority to enter into any agreement or undertaking for, or act on behalf of, or to act as or be an agent or representative of, or to otherwise bind, the other Party.

14.0 Severability

If any provision or portion of this Agreement shall for any reason be held or adjudged to be invalid or illegal or unenforceable by any court of competent jurisdiction or other Governmental Authority, (1) such portion or provision shall be deemed separate and independent, (2) the Parties shall negotiate in good faith to restore insofar as practicable the benefits to each Party that were affected by such ruling, and (3) the remainder of this Agreement shall remain in full force and effect.

15.0 Subcontractors

Nothing in this Agreement shall prevent a Party from utilizing the services of any subcontractor as it deems appropriate to perform its obligations under this Agreement; provided, however, that each Party shall require its subcontractors to comply with all applicable terms and conditions of this Agreement in providing such services and each Party shall remain primarily liable to the other Party for the performance of such subcontractor.

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(Continued on Sheet No. 10-241)

Date Filed:

By: Christopher B. Clark

Effective Date:

President, Northern States Power Company, a Minnesota corporation

Docket No. E002/M-18-714

Order Date:

15.1. The creation of any subcontract relationship shall not relieve the hiring Party of any of its obligations under this Agreement. The hiring Party shall be fully responsible to the other Party for the acts or omissions of any subcontractor the hiring Party hires as if no subcontract had been made; provided, however, that in no event shall the Area EPS Operator be liable for the actions or inactions of the Interconnection Customer or its subcontractors with respect to obligations of the Interconnection Customer under this Agreement. Any applicable obligation imposed by this Agreement upon the hiring Party shall be equally binding upon, and shall be construed as having application to, any subcontractor of such Party.

15.2. The obligations under this article will not be limited in any way by any limitation of subcontractor's insurance.

16.0 Inclusion of Area EPS Operator Tariffs and Rules

The interconnection services provided under this Agreement shall at all times be subject to the terms and conditions set forth in the tariff schedules and rules applicable to the electric service provided by the Area EPS, which tariff schedules and rules are hereby incorporated into this Agreement by this reference. Notwithstanding any other provisions of this Agreement, the Area EPS Operator shall have the right to unilaterally file with the MPUC, pursuant to the MPUC's rules and regulations, an application for change in rates, charges, classification, service, tariff, or rule or any agreement relating thereto. The Interconnection Customer shall also have the right to unilaterally file with the MPUC, pursuant to the MPUC's rules and regulations, an application for change in rates, charges, classification, service, tariff, or rule or any agreement relating thereto. Each Party shall be have the right to protest any such filing by the other Party and/or to participate fully in any proceeding before the MPUC in which such modifications may be considered, pursuant to the MPUC's rules and regulations.

17.0 Data to be provided by the Interconnection Customer with the Facilities Study Agreement

17.1. The Interconnection Customer shall be available to meet on site with the Area EPS Operator within 5 Business Days of signing the Facilities Study Agreement. The personnel furnished by the Interconnection Customer for this site meeting shall bring detailed information on the site layout. The Area EPS Operator may request the Interconnection Customer physically places stakes at the location of the major components.<sup>1</sup>

17.2. The Interconnection Customer shall furnish a final site plan detailing the location of major equipment at the time this agreement is returned. The Point of Common Coupling (PCC) and Point of DER Connection (PoC) shall be clearly marked. The site plan shall depict any nearby roads and be labeled with the road name. Accurate dimensions shall be included on the site plan. The proper emergency (911) address, corresponding to the site, shall be labeled on the site plan.

<sup>1</sup> Examples of major components include, but are not limited to, interconnection transformers, breakers, fuses, reclosers, meters, current transformers (CTs), potential transformers (PTs), switch cabinets, inverters.

(Continued on Sheet No. 10-242)

Date Filed:

By: Christopher B. Clark

Effective Date:

President, Northern States Power Company, a Minnesota corporation

Docket No. E002/M-18-714

Order Date:

N

N

- 17.3. The Interconnection Customer shall furnish a final one-line diagram detailing the electrical connections between major components. The one-line shall be returned with the signed Facilities Study Agreement.
- 17.4. Technical cut sheets on all equipment related to metering shall be provided by the Interconnection Customer along with the signed Facilities Study Agreement.
- 17.5. If available, copies of Conditional Use Permit(s) from all necessary authorities shall be returned by the Interconnection Customer with the signed Facilities Study Agreement.
- 17.6. The Interconnection Customer shall secure any necessary easements from private land owners prior to signing the Facilities Study Agreement. Documentation of any such agreements shall be provided to the Area EPS Operator.
- 17.7. In the event that the Area EPS Operator determines a site survey is necessary in order to complete a Facilities Study, the Interconnection Customer shall make good faith efforts to complete the site survey in a timely manner.
- 17.8. The Facilities Study assumes all land use permits required for the interconnection will be approved by the proper authorities. Permits are submitted after the Interconnection Agreement is signed and may impact project costs (i.e., overhead to underground requirement.)
- 17.9. The Interconnection Customer and Area EPS Operator shall provide a single point of contact for design and construction related matters. The Interconnection Customer single point of contact shall respond in a timely manner to Area EPS Operator questions during the Facilities Study.
- 17.10. In the event that an Interconnection Customer does not provide the necessary information described in this agreement, or if the Interconnection Customer takes more than five (5) Business Days to respond to a question during the Facilities Study, the Facilities Study timeframe shall pause until the question is resolved.

N

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(Continued on Sheet No. 10-243)

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Date Filed:

By: Christopher B. Clark

Effective Date:

President, Northern States Power Company, a Minnesota corporation

Docket No. E002/M-18-714

Order Date:

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

**MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2**

**MINNESOTA DISTRIBUTED ENERGY RESOURCES  
INTERCONNECTION PROCESS (MN DIP)  
(Continued)**

Section No. 10  
Original Sheet No. 243

IN WITNESS WHEREOF, the Parties have caused this Agreement to be duly executed by their duly authorized officers or agents on the day and year first above written.

<b><u>Northern States Power Company, a Minnesota corporation</u></b> <b><u>(Area EPS Operator)</u></b>	_____
	<b><u>(Interconnection Customer)</u></b>
Signed: _____	Signed: _____
Name (Printed): _____	Name (Printed): _____
Title: _____	Title: _____

N

N

(Continued on Sheet No. 10-244)

Date Filed: \_\_\_\_\_ By: Christopher B. Clark Effective Date: \_\_\_\_\_  
President, Northern States Power Company, a Minnesota corporation  
Docket No. E002/M-18-714 Order Date: \_\_\_\_\_

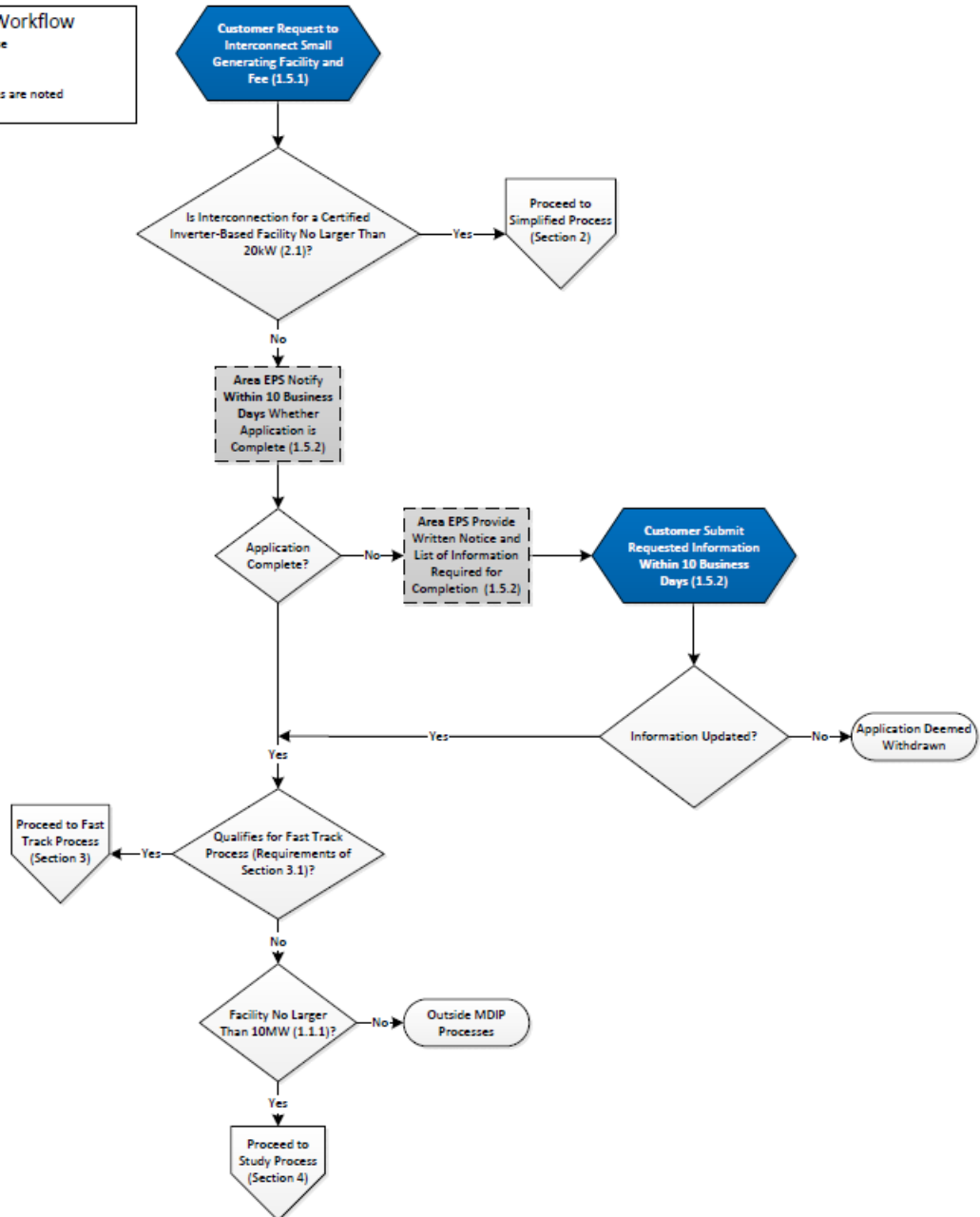


**MINNESOTA DISTRIBUTED ENERGY RESOURCES  
 INTERCONNECTION PROCESS (MN DIP)  
 (Continued)**

Section No. 10  
 Original Sheet No. 244

**Attachment 8: MN DIP Flow Charts**

**MNDIP Integration Workflow**  
 High Level View – for Public Use  
 September 2018  
 Note: Relevant MNDIP Sections are noted parenthetically



(Continued on Sheet No. 10-245)

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By: Christopher B. Clark

Effective Date:

President, Northern States Power Company, a Minnesota corporation

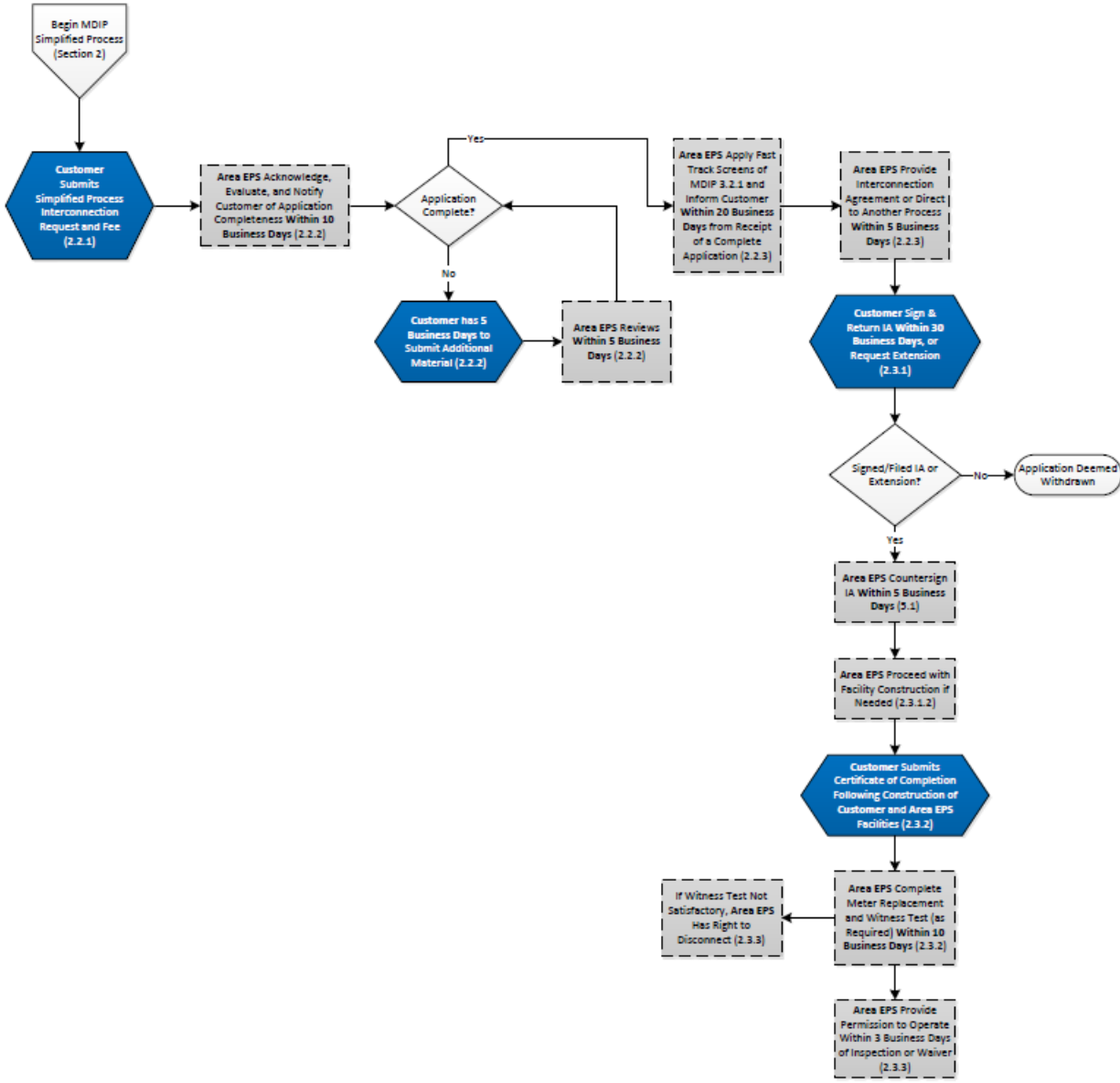
Docket No. E002/M-18-714

Order Date:

**MINNESOTA DISTRIBUTED ENERGY RESOURCES  
 INTERCONNECTION PROCESS (MN DIP)  
 (Continued)**

Section No. 10  
 Original Sheet No. 245

**MNDIP Simplified Process Workflow**  
 High Level View – for Public Use  
 September 2018  
 Note: Relevant MNDIP Sections are noted parenthetically



(Continued on Sheet No. 10-246)

Date Filed:

By: Christopher B. Clark

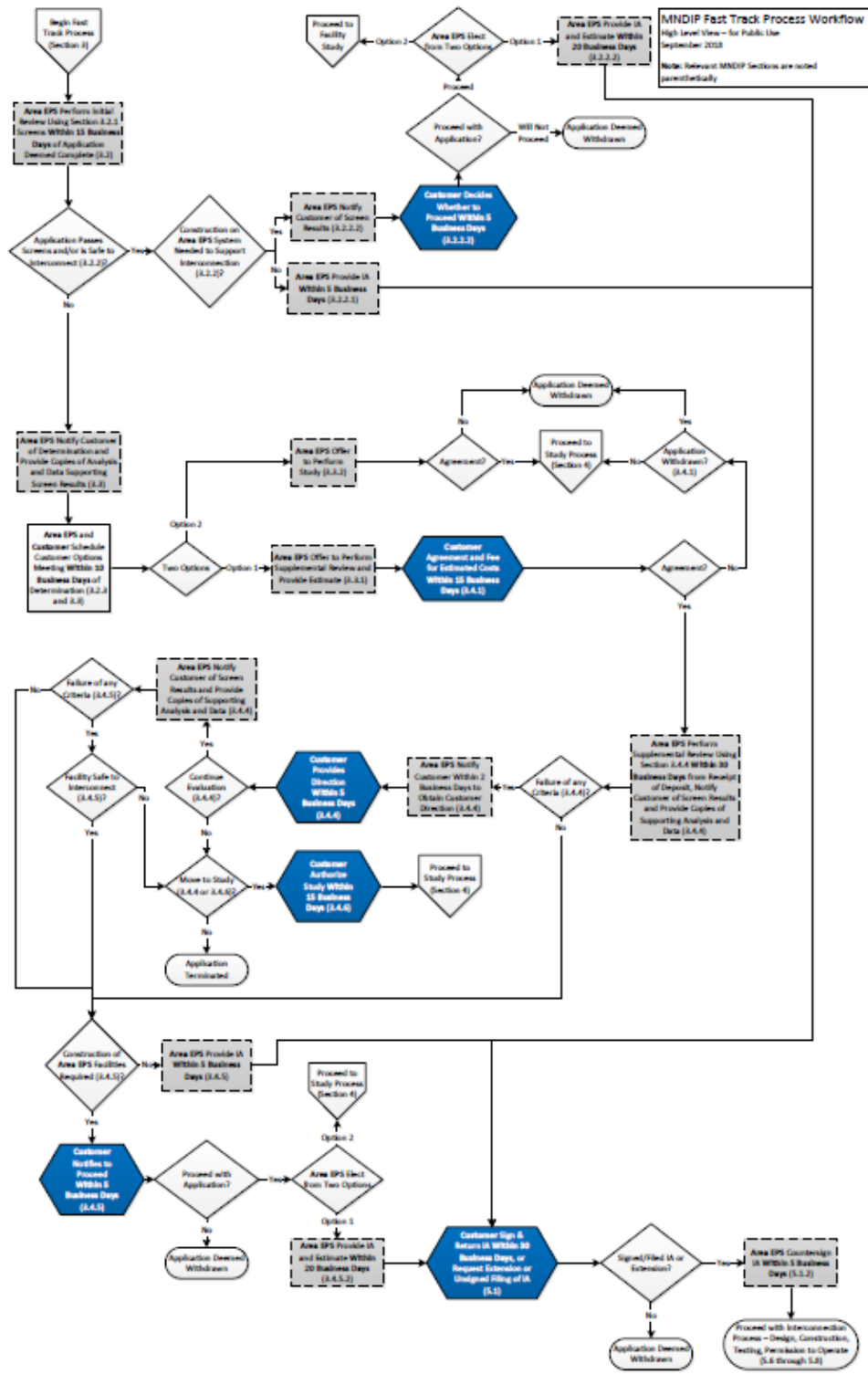
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**MINNESOTA DISTRIBUTED ENERGY RESOURCES  
 INTERCONNECTION PROCESS (MN DIP)  
 (Continued)**



(Continued on Sheet No. 10-247)

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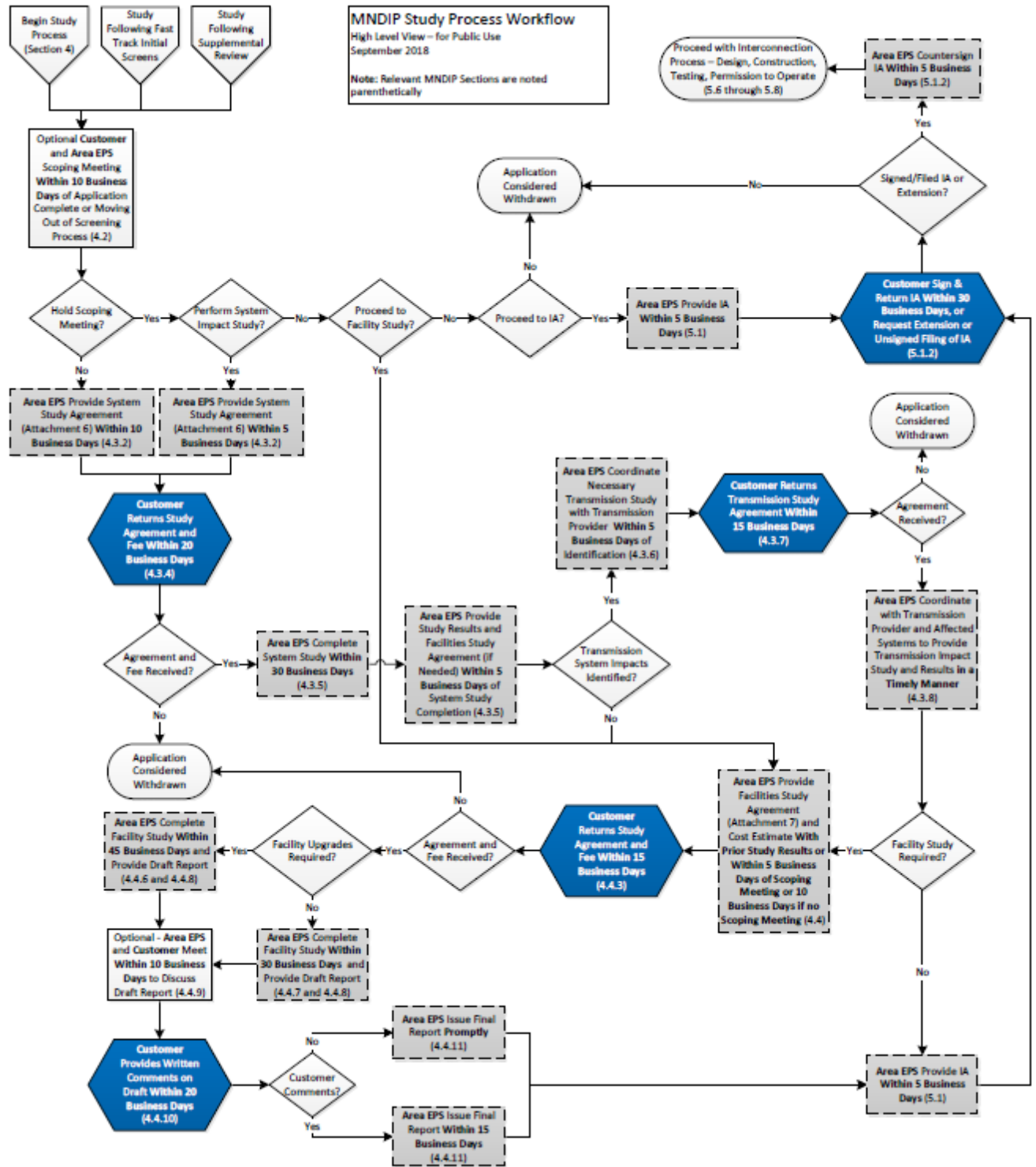
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**MINNESOTA DISTRIBUTED ENERGY RESOURCES  
 INTERCONNECTION PROCESS (MN DIP)  
 (Continued)**



(Continued on Sheet No. 10-248)

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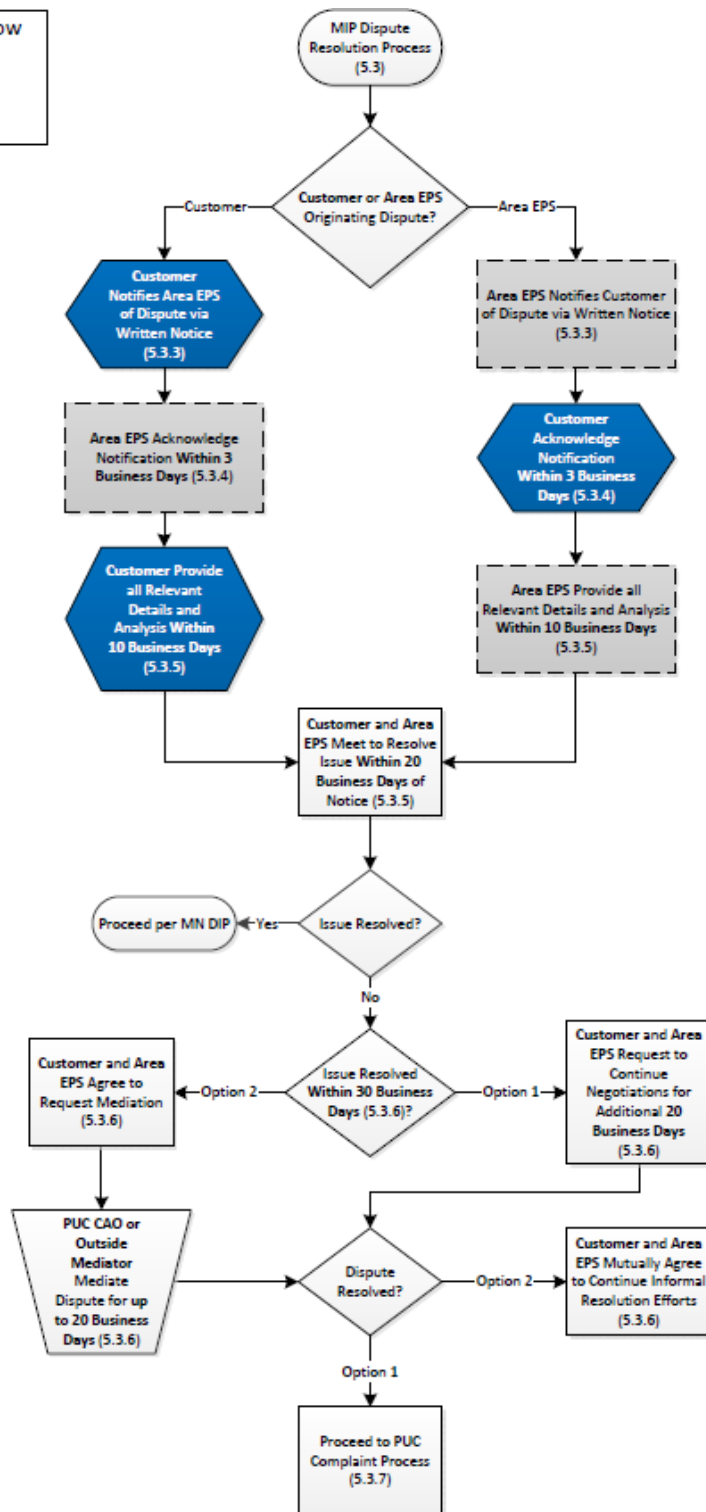
President, Northern States Power Company, a Minnesota corporation

Docket No. E002/M-18-714

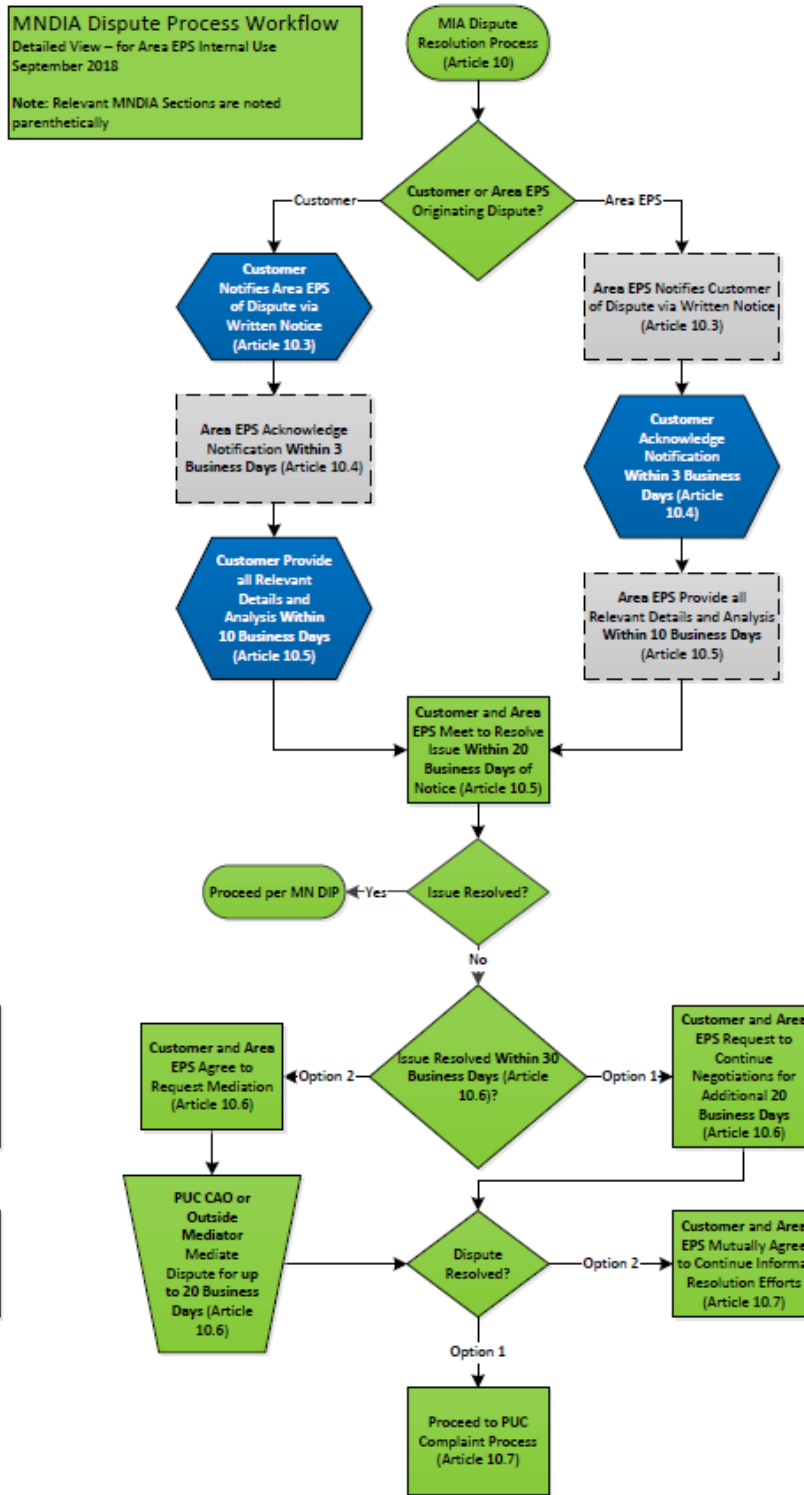
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**MINNESOTA DISTRIBUTED ENERGY RESOURCES  
 INTERCONNECTION PROCESS (MN DIP)  
 (Continued)**

**MNDIP Dispute Process Workflow**  
 High Level View – for Public Use  
 September 2018  
 Note: Relevant MNDIP Sections are noted  
 parenthetically



(Continued on Sheet No. 10-249)



**Minnesota Distributed Energy Resource Interconnection Agreement (MN DIA)**

**V. 2.3**

**(As adopted for Northern States Power Company)**

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**MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2**

**MINNESOTA DISTRIBUTED ENERGY RESOURCE  
INTERCONNECTION AGREEMENT (MN DIA)  
(Continued)**

Section No. 10  
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This Interconnection Agreement ("Agreement") is made and entered into this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_, by Northern States Power Company, a Minnesota corporation, doing business as Xcel Energy ("Area EPS Operator"), and \_\_\_\_\_ ("Interconnection Customer") each hereinafter sometimes referred to individually as "Party" or both referred to collectively as the "Parties."

Area EPS Operator Information

Area EPS Operator: Northern States Power Company, a Minnesota corporation

Attention: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Phone: \_\_\_\_\_ Email: \_\_\_\_\_

Interconnection Customer Information

Interconnection Customer: \_\_\_\_\_

Attention: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Phone: \_\_\_\_\_ Email: \_\_\_\_\_

Interconnection Customer Application No: \_\_\_\_\_

Distributed Energy Resource Information (To be completed by the Area EPS Operator)

Type of DER System (e.g.Solar, Wind, CHP, Solar+Storage): \_\_\_\_\_

Nameplate Rating \_\_\_\_\_ (ac) DER capacity (as described in MN DIP 5.14.3) \_\_\_\_\_ (ac)

Address of DER system: \_\_\_\_\_

City \_\_\_\_\_ State MN Zipcode \_\_\_\_\_

In consideration of the mutual covenants set forth herein, the Parties agree as follows:

1. Article 1. Scope and Limitations of Agreement

1.1. This Agreement is intended to provide for the Interconnection Customer to interconnect at the Point of Common Coupling and operate a Distributed Energy Resource with a Nameplate Rating of 10 Megawatts (MW) or less in parallel with the Area EPS at the location identified above and in the Interconnection Application.

(Continued on Sheet No. 10-252)

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- 1.2. This Agreement shall be used for all Interconnection Applications submitted under the Minnesota Distributed Energy Resources Interconnection Process (MN DIP) except for those submitted and processed under the Simplified Process contained in MN DIP Section 2 or qualify and chooses under MN DIP Section 1.1.5 for the Uniform Statewide Contract to replace the need for this Agreement.
- 1.3. This Agreement governs the terms and conditions under which the Interconnection Customer's Distributed Energy Resource will interconnect with, and operate in parallel with, the Area EPS Operator's Distribution System.
- 1.4. Capitalized terms used herein shall have the meanings specified in the Glossary of Terms in Attachment 1, the MN DIP, or the body of this Agreement.
- 1.5. This Agreement does not constitute an agreement to purchase or deliver the Interconnection Customer's power. The purchase or delivery of power and other services that the Interconnection Customer may require will be covered under separate agreements, if any. The Interconnection Customer will be responsible for separately making all necessary arrangements (including scheduling) for delivery of electricity with the applicable Area EPS Operator.
- 1.6. Nothing in this Agreement is intended to affect any other agreement between the Area EPS Operator and the Interconnection Customer.
- 1.7. Responsibilities of the Parties
- 1.7.1. The Parties shall perform all obligations of this Agreement in accordance with the MN DIP, Minnesota Technical Requirements, all Applicable Laws and Regulations, Operating Requirements, and Good Utility Practice.
- 1.7.2. The Interconnection Customer shall construct, interconnect, operate and maintain its Distributed Energy Resource and construct, operate, and maintain its Interconnection Facilities in accordance with the applicable manufacturer's recommended maintenance schedule and, in accordance with this Agreement, and with Good Utility Practice.
- 1.7.3. The Area EPS Operator shall construct, operate, and maintain its Distribution System and its Interconnection Facilities in accordance with this Agreement, and with Good Utility Practice.

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(Continued on Sheet No. 10-253)

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**MINNESOTA DISTRIBUTED ENERGY RESOURCE  
INTERCONNECTION AGREEMENT (MN DIA)  
(Continued)**

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1.7.4. The Interconnection Customer agrees to construct its facilities or systems in accordance with the Minnesota Technical Requirements and this Agreement; including, applicable specifications that meet or exceed those provided by the National Electrical Safety Code, the American National Standards Institute, IEEE, Underwriter's Laboratory, and Operating Requirements in effect at the time of construction and other applicable national and state codes and standards. The Interconnection Customer agrees to design, install, maintain, and operate its Distributed Energy Resource so as to reasonably minimize the likelihood of a disturbance adversely affecting or impairing the system or equipment of the Area EPS Operator and any Affected Systems.

1.7.5. Each Party shall operate, maintain, repair, and inspect, and shall be fully responsible for the facilities that it now owns or subsequently owns unless otherwise specified in the Attachments to this Agreement. Each Party shall be responsible for the safe installation, maintenance, repair and condition of their respective lines and appurtenances on their respective sides of the point of common coupling. The Area EPS Operator and the Interconnection Customer, as appropriate, shall provide Interconnection Facilities that adequately protect the Area EPS Operator's Distribution System, personnel, and other persons from damage and injury. The allocation of responsibility for the design, installation, operation, maintenance and ownership of Interconnection Facilities shall be delineated in the Attachments to this Agreement.

1.7.6. The Area EPS Operator shall coordinate with all Affected Systems to support the interconnection.

1.8. Parallel Operation Obligations

Once the Distributed Energy Resource has been authorized to commence parallel operation, the Interconnection Customer shall abide by all rules and procedures pertaining to the parallel operation of the Distributed Energy Resource in the applicable control area, including, but not limited to: 1) the rules and procedures concerning the operation of generation set forth in the Tariff or by the applicable system operator(s) for the Area EPS Operator's Distribution System provided or referenced in an attachment to this Agreement and; 2) the Operating Requirements set forth in Attachment 5 of this Agreement. The Minnesota Technical Requirements for interconnection are covered in a separate document, a copy of which has been made available to the Interconnection Customer and incorporated and made part of this Agreement by this reference.

1.9. Metering

As described in MN DIP 5.4, the Interconnection Customer shall be responsible for the Area EPS Operator's reasonable and necessary cost for the purchase, installation, operation, maintenance, testing, repair, and replacement of metering and data acquisition equipment specified in Attachments 2 and 3 of this Agreement. The Interconnection Customer's metering (and data acquisition, as required) equipment shall conform to applicable industry rules and Operating Requirements.

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1.10. Distributed Energy Resource Capabilities and Grid Reliability

1.10.1. The Minnesota Technical Requirements outlines the Parties responsibilities consistent with IEEE 1547 Standard for Interconnection and Interoperability of Distributed Energy Resources with Associated Electric Power Systems Interfaces which provides requirements relevant to the interconnection and interoperability performance, operation and testing, and, to safety, maintenance and security considerations.

1.10.2. The Area EPS Operator may offer the Interconnection Customer the option to utilize required DER capabilities to mitigate Interconnection Customer costs related to Upgrades or Interconnection Facilities to address anticipated system impacts from the engineering review (i.e., Initial Review, Supplemental Review, or Study Process described in the MN DIP.)

2. Article 2. Inspection, Testing, Authorization, and Right of Access

2.1. Equipment Testing and Inspection

As described in MN DIP Section 5.7, the Interconnection Customer shall test and inspect its Distributed Energy Resource and Interconnection Facilities prior to interconnection pursuant to Minnesota Technical Requirements and this Agreement.

2.2. Authorization Required Prior to Parallel Operation

As described in MN DIP Section 5.8, the Area EPS Operator shall use Reasonable Efforts to list applicable parallel operation requirements by attaching the Minnesota Technical Requirements and/or including them in Attachment 5 to this Agreement. Additionally, the Area EPS Operator shall notify the Interconnection Customer of any changes to these requirements as soon as they are known. Pursuant to the MN DIP 5.8.2, the Interconnection Customer shall not operate its Distributed Energy Resource in parallel with the Area EPS Operator's Distribution System without prior written authorization of the Area EPS Operator.

2.3. Right of Access

2.3.1. Upon reasonable notice, the Area EPS Operator may send a qualified person to the premises of the Interconnection Customer at or immediately before the time the Distributed Energy Resource first produces energy to inspect the interconnection, and observe the commissioning of the Distributed Energy Resource (including any required testing), startup, and operation for a period of up to three Business Days after initial start-up of the unit. In addition, the Interconnection Customer shall notify the Area EPS Operator at least five Business Days prior to conducting any on-site verification testing of the Distributed Energy Resource.

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2.3.2. Following the initial inspection process described above, at reasonable hours, and upon reasonable notice, or at any time without notice in the event of an emergency or hazardous condition, the Area EPS Operator shall have access to the Interconnection Customer's premises for any reasonable purpose in connection with the performance of the obligations imposed on it by this Agreement or if necessary to meet its legal obligation to provide service to its customers.

2.3.3. Each Party shall be responsible for its costs associated with following this article as outlined in MN DIP Section 5.7.2 and the Minnesota Technical Requirements.

3. Article 3. Effective Date, Term, Termination, and Disconnection

3.1. Effective Date

This Agreement shall become effective upon execution by the Parties.

3.2. Term of Agreement

This Agreement shall become effective on the Effective Date and shall remain in effect from the Effective Date unless terminated earlier in accordance with article 3.3 of this Agreement.

3.3. Termination

No termination shall become effective until the Parties have complied with all Applicable Laws and Regulations applicable to such termination.

3.3.1. The Interconnection Customer may terminate this Agreement at any time by giving the Area EPS Operator 20 Business Days written notice.

3.3.2. Either Party may terminate this Agreement after Default pursuant to article 7.7.

3.3.3. Upon termination of this Agreement, the Distributed Energy Resource will be disconnected from the Area EPS Operator's Distribution System. All costs required to effectuate such disconnection shall be borne by the terminating Party, unless such termination resulted from the non-terminating Party's Default of this MN DIA or such non-terminating Party otherwise is responsible for these costs under this MN DIA.

3.3.4. The termination of this Agreement shall not relieve either Party of its liabilities and obligations, owed or continuing at the time of the termination.

3.3.5. The provisions of this article shall survive termination or expiration of this Agreement.

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3.4. Temporary Disconnection

Temporary disconnection shall continue only for so long as reasonably necessary under Good Utility Practice.

3.4.1. Emergency Conditions

Under Emergency Conditions, the Area EPS Operator may immediately suspend interconnection service and temporarily disconnect the Distributed Energy Resource. The Area EPS Operator shall use Reasonable Efforts to notify the Interconnection Customer promptly when it becomes aware of an Emergency Condition that may reasonably be expected to affect the Interconnection Customer's operation of the Distributed Energy Resource. The Interconnection Customer shall use Reasonable Efforts to notify the Area EPS Operator promptly when it becomes aware of an Emergency Condition that may reasonably be expected to affect the Area EPS Operator's Distribution System or any Affected Systems. To the extent information is known, the notification shall describe the Emergency Condition, the extent of the damage or deficiency, the expected effect on the operation of both Parties' facilities and operations, its anticipated duration, and the necessary corrective action.

3.4.2. Routine Maintenance, Construction, and Repair

The Area EPS Operator may interrupt interconnection service or curtail the output of the Distributed Energy Resource and temporarily disconnect the Distributed Energy Resource from the Area EPS Operator's Distribution System when necessary for routine maintenance, construction, or repairs on the Area EPS Operator's Distribution System. The Area EPS Operator shall use Reasonable Efforts to provide the Interconnection Customer with three Business Days notice prior to such interruption. The Area EPS Operator shall use Reasonable Efforts to coordinate such reduction or temporary disconnection with the Interconnection Customer.

3.4.3. Forced Outage

During any forced outage, the Area EPS Operator may suspend interconnection service to effect immediate repairs on the Area EPS Operator's Distribution System. The Area EPS Operator shall use Reasonable Efforts to provide the Interconnection Customer with prior notice. If prior notice is not given, the Area EPS Operator shall, upon request, provide the Interconnection Customer written documentation after the fact explaining the circumstances of the disconnection.

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3.4.4. Adverse Operating Effects

The Area EPS Operator shall notify the Interconnection Customer as soon as practicable if, based on Good Utility Practice, operation of the Distributed Energy Resource may cause disruption or deterioration of service to other customers served from the same electric system, or if operating the Distributed Energy Resource could cause damage to the Area EPS Operator's Distribution System or Affected Systems. Supporting documentation used to reach the decision to disconnect shall be provided to the Interconnection Customer upon request. If, after notice, the Interconnection Customer fails to remedy the adverse operating effect within a reasonable time, the Area EPS Operator may disconnect the Distributed Energy Resource. The Area EPS Operator shall provide the Interconnection Customer with five Business Day notice of such disconnection, unless the provisions of article 3.4.1 apply.

3.4.5. Modification of the Distributed Energy Resource

The Interconnection Customer must receive written authorization from the Area EPS Operator before making any change to the Distributed Energy Resource that may have a material impact on the safety or reliability of the Distribution System. Such authorization shall not be unreasonably withheld if the modification is not a Material Modification. Material Modifications, including an increase nameplate rating or capacity, may require the Interconnection Customer to submit a new Interconnection Application as described in MN DIP Section 1.6.2. If the Interconnection Customer makes such modification without the Area EPS Operator's prior written authorization, the latter shall have the right to temporarily disconnect the Distributed Energy Resource.

3.4.6. Reconnection

The Parties shall cooperate with each other to restore the Distributed Energy Resource, Interconnection Facilities, and the Area EPS Operator's Distribution System to their normal operating state as soon as reasonably practicable following a temporary disconnection.

3.4.7. Treatment Similar to Other Retail Customers

If the Interconnection Customer receives retail electrical service at the same site as the Distributed Energy Resource, it may also be disconnected consistent with the rules and practices for disconnecting other retail electrical customers.

3.4.8. Disconnection for Default

If the Interconnection Customer is in Default it may be disconnected after a 60 day written notice is provided and the Default is not cured during this 60 day notice. This provision does not apply to disconnection based on Emergency Conditions.

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4. Article 4. Cost Responsibility for Interconnection Facilities and Distribution Upgrades

4.1. Interconnection Facilities

4.1.1. The Interconnection Customer shall pay for the cost of the Interconnection Facilities itemized in Attachment 2 of this Agreement. The Area EPS Operator shall provide a good faith estimate cost, including overheads, for the purchase and construction of its Interconnection Facilities and provide a detailed itemization of such costs. Costs associated with Interconnection Facilities may be shared with other entities that may benefit from such facilities by agreement of the Interconnection Customer, such other entities, and the Area EPS Operator.

4.1.2. The Interconnection Customer shall be responsible for its share of all reasonable expenses, including overheads, associated with (1) owning, operating, maintaining, repairing, and replacing its own Interconnection Facilities, and (2) operating, maintaining, repairing, and replacing the Area EPS Operator's Interconnection Facilities.

4.2. Distribution Upgrades

The Area EPS Operator shall design, procure, construct, install, and own the Distribution Upgrades described in Attachment 6 of this Agreement. The Area EPS Operator shall provide a good faith estimate cost, including overheads, for the purchase and construction of the Distribution Upgrades and provide a detailed itemization of such costs. If the Area EPS Operator and the Interconnection Customer agree, the Interconnection Customer may construct Distribution Upgrades that are located on land owned by the Interconnection Customer. The actual cost of the Distribution Upgrades, including overheads, shall be directly assigned to the Interconnection Customer.

5. Article 5. Cost Responsibility for Network Upgrades

5.1. Applicability

No portion of this Article 5 shall apply unless the interconnection of the Distributed Energy Resource requires Network Upgrades.

5.2. Network Upgrades

The Area EPS Operator or the Transmission Owner shall design, procure, construct, install, and own the Network Upgrades described in Attachment 6 of this Agreement. The Area EPS Operator shall provide a good faith estimate cost, including overheads, for the purchase and construction of the Network Upgrades and provide a detailed itemization of such costs. If the Area EPS Operator and the Interconnection Customer agree, the Interconnection Customer may construct Network Upgrades that are located on land owned by the Interconnection Customer. Unless the Area EPS Operator elects to pay for Network Upgrades, the actual cost of the Network Upgrades, including overheads, shall be borne initially by the Interconnection Customer.

(Continued on Sheet No. 10-259)

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5.2.1. Repayment of Amounts Advanced for Network Upgrades

The Interconnection Customer shall be entitled to a cash repayment, equal to the total amount paid to the Area EPS Operator and Affected System operator, if any, for Network Upgrades, including any tax gross-up or other tax-related payments associated with the Network Upgrades, and not otherwise refunded to the Interconnection Customer, to be paid to the Interconnection Customer on a dollar-for-dollar basis for the non-usage sensitive portion of transmission charges, as payments are made under the Area EPS Operator's Tariff and Affected System's Tariff for transmission services with respect to the Distributed Energy Resource. Any repayment shall include interest calculated in accordance with the methodology set forth in FERC's regulations at 18 C.F.R. § 35.19a(a)(2)(iii) from the date of any payment for Network Upgrades through the date on which the Interconnection Customer receives a repayment of such payment pursuant to this subparagraph. The Interconnection Customer may assign such repayment rights to any person.

5.2.1.1. Notwithstanding the foregoing, the Interconnection Customer, the Area EPS Operator, and any applicable Affected System operators may adopt any alternative payment schedule that is mutually agreeable so long as the Area EPS Operator and said Affected System operators take one of the following actions no later than five years from the Commercial Operation Date: (1) return to the Interconnection Customer any amounts advanced for Network Upgrades not previously repaid, or (2) declare in writing that the Area EPS Operator or any applicable Affected System operators will continue to provide payments to the Interconnection Customer on a dollar-for-dollar basis for the non-usage sensitive portion of transmission charges, or develop an alternative schedule that is mutually agreeable and provides for the return of all amounts advanced for Network Upgrades not previously repaid; however, full reimbursement shall not extend beyond 20 years from the commercial operation date.

5.2.1.2. If the Distributed Energy Resource fails to achieve commercial operation, but it or another Distributed Energy Resource is later constructed and requires use of the Network Upgrades within five (5) years of being constructed, the Area EPS Operator and Affected System operator (after receiving payment in the amount of the cost to build these Network Upgrades from the other Distributed Energy Resource who is expected to use the Network Upgrades) shall at that time reimburse the Interconnection Customer for the amounts advanced for the Network Upgrades. Before any such reimbursement can occur, the Interconnection Customer, or the entity that ultimately constructs the Distributed Energy Resource, if different, is responsible for identifying the entity to which reimbursement must be made.

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**MINNESOTA DISTRIBUTED ENERGY RESOURCE  
INTERCONNECTION AGREEMENT (MN DIA)  
(Continued)**

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5.3. Special Provisions for Affected Systems

Unless the Area EPS Operator provides, under this Agreement, for the repayment of amounts advanced to any applicable Affected System operators for Network Upgrades, the Interconnection Customer and Affected System operator shall enter into an agreement that provides for such repayment. The agreement shall specify the terms governing payments to be made by the Interconnection Customer to Affected System operator as well as the repayment by Affected System operator.

5.4. Rights Under Other Agreements

Notwithstanding any other provision of this Agreement, nothing herein shall be construed as relinquishing or foreclosing any rights, including but not limited to firm transmission rights, capacity rights, transmission congestion rights, or transmission credits, that the Interconnection Customer shall be entitled to, now or in the future, under any other agreement or tariff as a result of, or otherwise associated with, the transmission capacity, if any, created by the Network Upgrades, including the right to obtain cash reimbursements or transmission credits for transmission service that is not associated with the Distributed Energy Resource.

6. Article 6. Billing, Payment, Milestones, and Financial Security

6.1. Billing and Payment Procedures and Final Accounting

6.1.1. The Area EPS Operator shall bill the Interconnection Customer for the design, engineering, construction, and procurement costs of Interconnection Facilities and Upgrades contemplated by this Agreement, and the Interconnection Customer shall pay each bill, pursuant to the MN DIP 5.6.5, or as otherwise agreed to by the Parties.

6.1.2. Within 80 Business Days (approximately 4 calendar months) of completing the construction and installation of the Area EPS Operator's Interconnection Facilities and/or Upgrades described in the Attachments to this Agreement, the Area EPS Operator shall provide the Interconnection Customer with a final accounting report, as described in the MN DIP 5.6.6.

6.2. Milestones

Pursuant to the MN DIP 4.4.5, 5.6.2 and 5.6.3, the Parties shall agree on milestones for which each Party is responsible and list them in Attachment 4 of this Agreement.

6.3. Financial Security Arrangements

Pursuant to the MN DIP 5.6.4, the Interconnection Customer shall provide the Area EPS Operator, at the Interconnection Customer's option, a guarantee, letter of credit or other form of security that is reasonably acceptable to the Area EPS Operator and is consistent with the Minnesota Uniform Commercial Code. Such security for payment shall be in an amount sufficient to cover the costs for constructing, designing, procuring, and installing the applicable portion of the Area EPS Operator's Interconnection Facilities and Upgrades and shall be reduced on a dollar-for-dollar basis for payments made to the Area EPS Operator under this Agreement during its term. In addition:

(Continued on Sheet No. 10-261)

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6.3.1. The guarantee must be made by an entity that meets the creditworthiness requirements of the Area EPS Operator, and contain terms and conditions that guarantee payment of any amount that may be due from the Interconnection Customer, up to an agreed-to maximum amount.

6.3.2. The letter of credit must be issued by a financial institution or insurer reasonably acceptable to the Area EPS Operator and must specify a reasonable expiration date not sooner than sixty (60) Business Days (three calendar months) after the due date for the issuance of the final bill.

7. Article 7. Assignment, Liability, Non-Warranty, Indemnity, Force Majeure, Consequential Damages, and Default

7.1. Assignment

This Agreement may be assigned by either Party upon 15 Business Days prior written notice and opportunity to object by the other Party; provided that:

7.1.1. Either Party may assign this Agreement without the consent of the other Party to any affiliate of the assigning Party with an equal or greater credit rating and with the legal authority and operational ability to satisfy the obligations of the assigning Party under this Agreement, provided that the Interconnection Customer promptly notifies the Area EPS Operator of any such assignment.

7.1.2. The Interconnection Customer shall have the right to assign this Agreement, without the consent of the Area EPS Operator, for collateral security purposes to aid in providing financing for the Distributed Energy Resource, provided that the Interconnection Customer will promptly notify the Area EPS Operator of any such assignment.

7.1.3. Any attempted assignment that violates this article is void and ineffective. Assignment shall not relieve a Party of its obligations, nor shall a Party's obligations be enlarged, in whole or in part, by reason thereof. An assignee is responsible for meeting the same financial, credit, and insurance obligations as the Interconnection Customer. Where required, consent to assignment will not be unreasonably withheld, conditioned or delayed.

7.2. Limitation of Liability

Each Party's liability to the other Party for any loss, cost, claim, injury, liability, or expense, including reasonable attorney's fees, relating to or arising from any act or omission in its performance of this Agreement, 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 indirect, special, consequential, or punitive damages, except as authorized by this Agreement.

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7.3. Non-Warranty

The Area EPS Operator does not give any warranty, expressed or implied, as to the adequacy, safety, or other characteristics of any structures, equipment, wires, appliances or devices owned, installed or maintained by the Interconnection Customer, including without limitation the Distributed Energy Resource and any structures, equipment, wires, appliances or devices not owned, operated or maintained by the Area EPS Operator.

7.4. Indemnity

7.4.1. This provision protects each Party from liability incurred to third parties as a result of carrying out the provisions of this Agreement. Liability under this provision is exempt from the general limitations on liability found in article 7.2.

7.4.2. The Parties shall at all times indemnify, defend, and hold the other Party harmless from, any and all damages, losses, claims, including claims and actions relating to injury to or death of any person or damage to property, demand, suits, recoveries, costs and expenses, court costs, attorney fees, and all other obligations by or to third parties, arising out of or resulting from the other Party's action or failure to meet its obligations under this Agreement on behalf of the indemnifying Party, except in cases of gross negligence or intentional wrongdoing by the indemnified Party.

7.4.3. This indemnification obligation shall apply notwithstanding any negligent or intentional acts, errors or omissions of the Indemnified Party, but the Indemnifying Party's liability to indemnify the Indemnified Party shall be reduced in proportion to the percentage by which the Indemnified Party's negligent or intentional acts, errors or omissions caused the damage.

7.4.4. Neither Party shall be indemnified for its damages resulting from its sole negligence, intentional acts or willful misconduct. These indemnity provisions shall not be construed to relieve any insurer of its obligation to pay claims consistent with the provisions of a valid insurance policy.

7.4.5. If an indemnified person is entitled to indemnification under this article as a result of a claim by a third party, and the indemnifying Party fails, after notice and reasonable opportunity to proceed under this article, to assume the defense of such claim, such indemnified person may at the expense of the indemnifying Party contest, settle or consent to the entry of any judgment with respect to, or pay in full, such claim.

7.4.6. If an indemnifying party is obligated to indemnify and hold any indemnified person harmless under this article, the amount owing to the indemnified person shall be the amount of such indemnified person's actual loss, net of any insurance or other recovery.

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7.4.7. Promptly after receipt by an indemnified person of any claim or notice of the commencement of any action or administrative or legal proceeding or investigation as to which the indemnity provided for in this article may apply, the indemnified person shall notify the indemnifying party of such fact. Any failure of or delay in such notification shall not affect a Party's indemnification obligation unless such failure or delay is materially prejudicial to the indemnifying party.

7.5. Consequential Damages

Other than as expressly provided for in this Agreement, neither Party shall be liable under any provision of this Agreement for any losses, damages, costs or expenses for any special, indirect, incidental, consequential, or punitive damages, including but not limited to loss of profit or revenue, loss of the use of equipment, cost of capital, cost of temporary equipment or services, whether based in whole or in part in contract, in tort, including negligence, strict liability, or any other theory of liability; provided, however, that damages for which a Party may be liable to the other Party under another agreement will not be considered to be special, indirect, incidental, or consequential damages hereunder.

7.6. Force Majeure

If a Force Majeure Event prevents a Party from fulfilling any obligations under this Agreement, the Party affected by the Force Majeure Event (Affected Party) shall promptly notify the other Party, either in writing or via the telephone, of the existence of the Force Majeure Event. The notification must specify in reasonable detail the circumstances of the Force Majeure Event, its expected duration, and the steps that the Affected Party is taking to mitigate the effects of the event on its performance. The Affected Party shall keep the other Party informed on a continuing basis of developments relating to the Force Majeure Event until the event ends. The Affected Party will be entitled to suspend or modify its performance of obligations under this Agreement (other than the obligation to make payments) only to the extent that the effect of the Force Majeure Event cannot be mitigated by the use of Reasonable Efforts. The Affected Party will use Reasonable Efforts to resume its performance as soon as possible.

7.7. Default

7.7.1. No Default shall exist where such failure to discharge an obligation (other than the payment of money) is the result of a Force Majeure Event as defined in this Agreement or the result of an act or omission of the other Party. Upon a Default, the non-defaulting Party shall give written notice of such Default to the defaulting Party. Except as provided in article 7.6.2, the defaulting Party shall have 60 calendar days from receipt of the Default notice within which to cure such Default; provided however, if such Default is not capable of cure within 60 calendar days, the defaulting Party shall commence such cure within 20 calendar days after notice and continuously and diligently complete such cure within six months from receipt of the Default notice; and, if cured within such time, the Default specified in such notice shall cease to exist.

(Continued on Sheet No. 10-264)

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7.7.2. If a Default is not cured as provided in this article, or if a Default is not capable of being cured within the period provided for herein, the non-defaulting Party shall have the right to terminate this Agreement by written notice at any time until cure occurs, and be relieved of any further obligation hereunder and, whether or not that Party terminates this Agreement, to recover from the defaulting Party all amounts due hereunder, plus all other damages and remedies to which it is entitled at law or in equity. The provisions of this article will survive termination of this Agreement.

8. Article 8. Insurance

- 8.1. An Area EPS Operator may only require an Interconnection Customer to purchase insurance covering damages pursuant to the MN DIP 5.10.
- 8.2. The Area EPS Operator agrees to maintain general liability insurance or self-insurance consistent with the Area EPS Operator's commercial practice. Such insurance or self-insurance shall not exclude coverage for the Area EPS Operator's liabilities undertaken pursuant to this Agreement.
- 8.3. The Parties further agree to notify each other whenever an accident or incident occurs resulting in any injuries or damages that are included within the scope of coverage of such insurance, whether or not such coverage is sought.
- 8.4. Failure of the Interconnection Customer or Area EPS Operator to enforce the minimum levels of insurance does not relieve the Interconnection Customer from maintaining such levels of insurance or relieve the Interconnection Customer of any liability.

9. Article 9. Confidentiality

- 9.1. Confidential Information shall mean any confidential and/or proprietary information provided by one Party to the other Party that is clearly marked or otherwise designated "Confidential." For purposes of this Agreement, design, operating specifications, and metering data provided by the Interconnection Customer may be deemed Confidential Information regardless of whether it is clearly marked or otherwise designated as such. If requested by either Party, the other Party shall provide in writing the basis for asserting that the information warrants confidential treatment. Parties providing a Governmental Authority trade secret, privileged or otherwise not public or nonpublic data under the Minnesota Government Data Practices Act, Minnesota Statutes Chapter 13, shall identify such data consistent with the Commission's September 1, 1999 Revised Procedures for Handling Trade Secret and Privileged Data, available online at: <https://mn.gov/puc/puc-documents/#4>

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9.2. Confidential Information does not include information previously in the public domain with proper authorization, required to be publicly submitted or divulged by Governmental Authorities (after notice to the other Party and after exhausting any opportunity to oppose such publication or release), or necessary to be publicly divulged in an action to enforce this Agreement. Each Party receiving Confidential Information shall hold such information in confidence and shall not disclose it to any third party nor to the public without the prior written authorization from the Party providing that information, except to fulfill obligations under this Agreement, or to fulfill legal or regulatory requirements that could not otherwise be fulfilled by not making the information public.

9.2.1. Each Party shall hold in confidence and shall not disclose Confidential Information, to any person (except employees, officers, representatives and agents, who agree to be bound by this section). Confidential Information shall be clearly marked as such on each page or otherwise affirmatively identified. If a court, government agency or entity with the right, power, and authority to do so, requests or requires either Party, by subpoena, oral disposition, interrogatories, requests for production of documents, administrative order, or otherwise, to disclose Confidential Information, that Party shall provide the other Party with prompt notice of such request(s) or requirements(s) so that the other Party may seek an appropriate protective order or waive compliance with the terms of this Agreement. In the absence of a protective order or waiver the Party shall disclose such confidential information which, in the opinion of its counsel, the party is legally compelled to disclose. Each Party will use reasonable efforts to obtain reliable assurance that confidential treatment will be accorded any confidential information so furnished.

9.2.2. Critical infrastructure information or information that is deemed or otherwise designated by a Party as Critical Energy/Electric Infrastructure Information (CEII) pursuant to FERC regulation, 18 C.F.R. §388.133, as may be amended from time to time, may be subject to further protections for disclosure as required by FERC or FERC regulations or orders and the disclosing Party's CEII policies.

9.2.3. Each Party shall employ at least the same standard of care to protect Confidential Information obtained from the other Party as it employs to protect its own Confidential Information.

9.2.4. Each Party is entitled to equitable relief, by injunction or otherwise, to enforce its rights under this provision to prevent the release of Confidential Information without bond or proof of damages, and may seek other remedies available at law or in equity for breach of this provision.

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10. Article 10. Disputes

- 10.1. The Parties agree to attempt to resolve all disputes arising out of the interconnection process and associated study and interconnection agreements according to the provisions of this article and Minnesota Administrative Rules 7829.1500-7829.1900. More information on the Commission's Consumer Affairs Office dispute resolution services is available on the Commission's website: <https://mn.gov/puc/consumers/help/complaint/>
- 10.2. Prior to a written Notice of Dispute, the Party shall contact the other Party and raise the issue and the relief sought in an attempt to resolve the issue immediately.
- 10.3. In the event of a dispute, the disputing Party shall provide the other Party a written Notice of Dispute containing the relevant known facts pertaining to the dispute, the specific dispute and the relief sought, and express notice by the disputing Party that it is invoking the procedures under this article. The Interconnection Customer may utilize the Commission's Consumer Affairs Office's complaint/inquiry form and Informal Complaint dispute resolution process to assist with the written Notice of Dispute. The notice shall be sent to the non-disputing Party's email address and physical address set forth in the interconnection agreement or Interconnection Application, if there is no interconnection agreement. If the Interconnection Customer chooses not to utilize the Commission's Consumer Affairs Office dispute resolution process, the Interconnection Customer shall provide an informational electronic copy of the Notice of Dispute to the Consumer Affairs Office at the Commission at [consumer.puc@state.mn.us](mailto:consumer.puc@state.mn.us).
- 10.4. The non-disputing Party shall acknowledge the notice within three (3) Business Days of its receipt and identify a representative with the authority to make decisions for the non-disputing Party with respect to the dispute.
- 10.5. The non-disputing Party shall provide the disputing Party with relevant regulatory and/or technical details and analysis regarding the Area EPS Operator interconnection requirements under dispute within ten (10) Business Days of the date of the Notice of Dispute. Within twenty (20) Business Days of the date of the Notice of Dispute, the Parties' authorized representatives will be required to meet and confer to try to resolve the dispute. Parties shall operate in good faith and use best efforts to resolve the dispute.
- 10.6. If a resolution is not reached in the thirty (30) Business Days from the date of the notice described in section 10.3, the Parties may 1) if mutually agreed, continue negotiations for up to an additional twenty (20) Business Days; or 2) either Party may request the Commission's Consumer Affairs Office provide mediation in an attempt to resolve the dispute within twenty (20) Business Days with the opportunity to extend this timeline upon mutual agreement. Alternatively, both Parties by mutual agreement may request mediation from an outside third-party mediator with costs to be shared equally between the Parties.

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10.7. If the results of the mediation are not accepted by one or more Parties and there is still disagreement, the dispute shall proceed to the Commission's Formal Complaint process as described in Minn. Rules 7829.1700-1900 unless mutually agreed to continue with informal dispute resolution.

10.8. At any time, either Party may file a complaint before the Commission pursuant to Minn. Stat. §216B.164, if applicable, and Commission rules outlined in Minn. Rules Ch. 7829.

11. Article 11. Taxes

11.1. The Parties agree to follow all applicable tax laws and regulations, consistent with Internal Revenue Service and any other relevant local, state and federal requirements.

11.2. Each Party shall cooperate with the other to maintain the other Party's tax status. It is incumbent on the Party seeking to maintain its tax status to provide formal written notice to the other Party detailing what exact cooperation it is seeking from the other Party well prior to any deadline by which any such action would need to be taken. Nothing in this Agreement is intended to adversely affect, if applicable, the Area EPS Operator's tax exempt status with respect to the issuance of bonds including, but not limited to, local furnishing bonds.

12. Article 12. Miscellaneous

12.1. Governing Law, Regulatory Authority, and Rules  
The validity, interpretation and enforcement of this Agreement and each of its provisions shall be governed by the Minnesota Public Utilities Commission and the laws of the state of Minnesota, without regard to its conflicts of law principles. This Agreement is subject to all Applicable Laws and Regulations. Each Party expressly reserves the right to seek changes in, appeal, or otherwise contest any laws, orders, or regulations of a Governmental Authority.

12.2. Amendment  
The Parties may amend this Agreement by a written instrument duly executed by both Parties under the process described below, or under article 12.12 of this Agreement.

If the Parties seek to amend this Agreement by a written instrument duly executed by both Parties, this amendment will need to receive Commission approval prior to it being effective. The Area EPS Operator and Interconnection Customer may seek Commission approval of an amendment to the Interconnection Agreement for use between them for a specific Interconnection Application in the following ways:

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12.2.1. File a Petition with the Commission, or

12.2.2. File a Notice with the Commission of the proposed amendment. The Notice should include a copy of the amendment showing in redline format how the amendment would alter the MN DIA between the Area EPS Operator and Interconnection Customer for the Interconnection Application at issue. If no objection or notice of intent to object is filed within 30 days, then the proposed amendment would be considered to be approved by the Commission. If there is a timely filed objection of notice of intent to object, then the proposed amendment would not be considered to have been approved by the Commission and could only be used if the Commission subsequently issues a written order authorizing its use.

12.2.3. Commission approval of an amendment to the Interconnection Agreement is not needed where such an amendment only addresses updating or correcting: 1) information specified in the Interconnection Application; 2) exhibits or attachments to the Interconnection Agreement as long as they are not additional agreements or requirements not covered in the MN DIP or Minnesota Technical Requirements; or 3) information provided in the blank lines to the MN DIA or Uniform Statewide Contract forms.

12.3. No Third-Party Beneficiaries

This Agreement is not intended to and does not create rights, remedies, or benefits of any character whatsoever in favor of any persons, corporations, associations, or entities other than the Parties, and the obligations herein assumed are solely for the use and benefit of the Parties, their successors in interest and where permitted, their assigns.

12.4. Waiver

12.4.1. The failure of a Party to this Agreement to insist, on any occasion, upon strict performance of any provision of this Agreement will not be considered a waiver of any obligation, right, or duty of, or imposed upon, such Party.

12.4.2. Any waiver at any time by either Party of its rights with respect to this Agreement shall not be deemed a continuing waiver or a waiver with respect to any other failure to comply with any other obligation, right, duty of this Agreement. Termination or default of this Agreement for any reason by Interconnection Customer shall not constitute a waiver of the Interconnection Customer's legal rights to obtain an interconnection from the Area EPS Operator. Any waiver of this Agreement shall, if requested, be provided in writing.

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12.5. Entire Agreement

This Agreement, including all Attachments, constitutes the entire agreement between the Parties with reference to the subject matter hereof, and supersedes all prior and contemporaneous understandings or agreements, oral or written, between the Parties with respect to the subject matter of this Agreement. There are no other agreements, representations, warranties, or covenants which constitute any part of the consideration for, or any condition to, either Party's compliance with its obligations under this Agreement. This Agreement can only be amended or modified in writing signed by both Parties.

12.6. Multiple Counterparts

This Agreement may be executed in two or more counterparts, each of which is deemed an original but all constitute one and the same instrument. Electronic signatures are acceptable if the Area EPS Operator has made such a determination pursuant to MN DIP 1.2.1.1.

12.7. No Partnership

This Agreement shall not be interpreted or construed to create an association, joint venture, agency relationship, or partnership between the Parties or to impose any partnership obligation or partnership liability upon either Party. Neither Party shall have any right, power or authority to enter into any agreement or undertaking for, or act on behalf of, or to act as or be an agent or representative of, or to otherwise bind, the other Party.

12.8. Severability

If any provision or portion of this Agreement shall for any reason be held or adjudged to be invalid or illegal or unenforceable by any court of competent jurisdiction or other Governmental Authority, (1) such portion or provision shall be deemed separate and independent, (2) the Parties shall negotiate in good faith to restore insofar as practicable the benefits to each Party that were affected by such ruling, and (3) the remainder of this Agreement shall remain in full force and effect.

12.9. Security Arrangements

Infrastructure security of electric system equipment and operations and control hardware and software is essential to ensure day-to-day reliability and operational security. All public utilities are expected to meet basic standards for system infrastructure and operational security, including physical, operational, and cyber-security practices.

12.10. Environmental Releases

Each Party shall notify the other Party, first orally and then in writing, of the release of any hazardous substances, any asbestos or lead abatement activities, or any type of remediation activities related to the Distributed Energy Resource or the Interconnection Facilities, each of which may reasonably be expected to affect the other Party. The notifying Party shall (1) provide the notice as soon as practicable, provided such Party makes a good faith effort to provide the notice no later than 24 hours after such Party becomes aware of the occurrence, and (2) promptly furnish to the other Party copies of any publicly available reports filed with any governmental authorities addressing such events.

(Continued on Sheet No. 10-270)

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12.11. Subcontractors

Nothing in this Agreement shall prevent a Party from utilizing the services of any subcontractor as it deems appropriate to perform its obligations under this Agreement; provided, however, that each Party shall require its subcontractors to comply with all applicable terms and conditions of this Agreement in providing such services and each Party shall remain primarily liable to the other Party for the performance of such subcontractor.

12.11.1. The creation of any subcontract relationship shall not relieve the hiring Party of any of its obligations under this Agreement. The hiring Party shall be fully responsible to the other Party for the acts or omissions of any subcontractor the hiring Party hires as if no subcontract had been made; provided, however, that in no event shall the Area EPS Operator be liable for the actions or inactions of the Interconnection Customer or its subcontractors with respect to obligations of the Interconnection Customer under this Agreement. Any applicable obligation imposed by this Agreement upon the hiring Party shall be equally binding upon, and shall be construed as having application to, any subcontractor of such Party.

12.11.2. The obligations under this article will not be limited in any way by any limitation of subcontractor's insurance.

12.12. Inclusion of Area EPS Operator Tariffs and Rules

The interconnection services provided under this Agreement shall at all times be subject to the terms and conditions set forth in the tariff schedules and rules applicable to the electric service provided by the Area EPS Operator, which tariff schedules and rules are hereby incorporated into this Agreement by this reference. Notwithstanding any other provisions of this Agreement, the Area EPS Operator shall have the right to unilaterally file with the Minnesota Public Utilities Commission pursuant to the Commission's rules and regulations, an application for change in rates, charges, classification, service, tariff, or rule or any agreement relating thereto. The Interconnection Customer shall also have the right to unilaterally file with the Commission, pursuant to the Commission's rules and regulations, an application for change in rates, charges, classification, service, tariff, or rule or any agreement relating thereto. Each Party shall have the right to protest any such filing by the other Party and/or to participate fully in any proceeding before the Commission in which such modifications may be considered, pursuant to the Commission's rules and regulations.

13. Article 13. Notices

13.1. General

Unless otherwise provided in this Agreement, any written notice, demand, or request required or authorized in connection with this Agreement ("Notice") shall be deemed properly given if delivered in person, delivered by recognized national carrier service, or sent by first class mail, postage prepaid, to the person specified below:

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By: Christopher B. Clark

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13.3. Alternative Forms of Notice

Any notice or request required or permitted to be given by either Party to the other and not required by this Agreement to be given in writing may be so given by telephone or email to the telephone numbers and email addresses set out below:

If to the Interconnection Customer:

Interconnection Customer: \_\_\_\_\_

Attention: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Phone: \_\_\_\_\_ Email: \_\_\_\_\_

If to the Area EPS Operator:

Area EPS Operator: Northern States Power Company, a Minnesota Corporation

Attention: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Phone: \_\_\_\_\_ Email: \_\_\_\_\_

13.4. Designated Operating Representative

The Parties may also designate operating representatives to conduct the communications which may be necessary or convenient for the administration of this Agreement. This person will also serve as the point of contact with respect to operations and maintenance of the Party's facilities.

Interconnection Customer's Operating Representative:

Interconnection Customer: \_\_\_\_\_

Attention: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Phone: \_\_\_\_\_ Email: \_\_\_\_\_

(Continued on Sheet No. 10-273)

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**MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2**

**MINNESOTA DISTRIBUTED ENERGY RESOURCE  
INTERCONNECTION AGREEMENT (MN DIA)  
(Continued)**

Section No. 10  
Original Sheet No. 273

Area EPS Operator's Operating Representative:

Area EPS Operator: Northern States Power Company, a Minnesota Corporation

Attention: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Phone: \_\_\_\_\_ Email: \_\_\_\_\_

13.5. Changes to the Notice Information

Either Party may change this information by giving five Business Days written notice to the other Party prior to the effective date of the change.

14. Article 14. Signatures

IN WITNESS WHEREOF, the Parties have caused this Agreement to be executed by their respective duly authorized representatives.

For Northern States Power Company, a Minnesota corporation (Area EPS Operator)-

Signature: \_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

For the Interconnection Customer

Signature: \_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

(Continued on Sheet No. 10-274)

Date Filed: \_\_\_\_\_ By: Christopher B. Clark Effective Date: \_\_\_\_\_  
President, Northern States Power Company, a Minnesota corporation  
Docket No. E002/M-18-714 Order Date: \_\_\_\_\_

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Attachment 1: Glossary of Terms

**Affected System** – Another Area EPS Operator's system, or Transmission Owner's Transmission System, or Transmission System connected generation which may be affected by the proposed interconnection.

**Applicant Agent** – A person designated in writing by the Interconnection Customer to represent or provide information to the Area EPS on the Interconnection Customer's behalf throughout the interconnection process.

**Area EPS** - The electric power distribution system connected at the Point of Common Coupling.

**Area EPS Operator** – An entity that owns, controls, or operates the electric power distribution systems that are used for the provision of electric service in Minnesota.

**Business Day** – Monday through Friday, excluding Holidays as defined by Minn. Stat. §645.44, Subd. 5. See MN DIP 5.2.1 for more on computation of time.

**Certified Equipment** - UL 1741 listing is a common form of DER inverter certification. See MN DIP Attachment 4: Certification Codes and Standards and Attachment 5: Certification of Distributed Energy Resource Equipment.

**Confidential Information** – See MN DIA Article 9.

**Distributed Energy Resource (DER)** – A source of electric power that is not directly connected to a bulk power system. DER includes both generators and energy storage technologies capable of exporting active power to an EPS. An interconnection system or a supplemental DER device that is necessary for compliance with this standard is part of a DER. For the purpose of the MN DIP and MN DIA, the DER includes the Customer's Interconnection Facilities but shall not include the Area EPS Operator's Interconnection Facilities.

**Distribution System** – The Area EPS facilities which are not part of the Local EPS, Transmission System or any generation system.

**Distribution Upgrades** – The additions, modifications, and upgrades to the Distribution System at or beyond the Point of Common Coupling to facilitate interconnection of the DER and render the distribution service necessary to effect the Interconnection Customer's connection to the Distribution System. Distribution Upgrades do not include Interconnection Facilities.

**Effective Date** – Agreement(s) shall become effective upon execution by the Parties.

**Electric Power System (EPS)** – The facilities that deliver electric power to a load.

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MINNESOTA DISTRIBUTED ENERGY RESOURCE  
INTERCONNECTION AGREEMENT (MN DIA)  
(Continued)

Section No. 10  
Original Sheet No. 275

**Emergency Conditions** – a condition or situation: (1) that in the judgment of the Party making the claim is imminently likely to endanger life or property; or (2) that, in the case of the Area EPS Operator, is imminently likely (as determined in a non-discriminatory manner) to cause a material adverse effect on the security of, or damage to the Distribution System, the Area EPS Operator's Interconnection Facilities or the Distribution Systems of others to which the Distribution System is directly connected; or (3) that, in the case of the Interconnection Customer, is imminently likely (as determined in a non-discriminatory manner) to cause a material adverse effect on the security of, or damage to, the Distributed Energy Resource or the Interconnection Customer's Interconnection Facilities.

**Fast Track Process** – The procedure as described in MN DIP Section 3 for evaluating an Interconnection Application for a Distributed Energy Resource that meets the eligibility requirements of MN DIP section 3.1.

**Force Majeure Event** – An act of God, labor disturbance, act of the public enemy, war, insurrection, riot, fire, storm or flood, explosion, breakage or accident to machinery or equipment, an order, regulation or restriction imposed by governmental, military or lawfully established civilian authorities, or another cause beyond a Party's control. A Force Majeure Event does not include an act of negligence or intentional wrongdoing.

**Good Utility Practice** – Any of the practices, methods and acts engaged in or approved by a significant portion of the electric industry during the relevant time period, or any of the practices, methods and act which, in the exercise of reasonable judgment in light of the facts known at the time the decision was made, could have been expected to accomplish the desired result at a reasonable cost consistent with good business practices, reliability, safety and expedition. Good Utility Practice is not intended to be limited to the optimum practice, method, or act to the exclusion of all others, but rather to be acceptable practices, methods, or acts generally accepted in the region.

**Governmental Authority** – Any federal, state, local or other governmental regulatory or administrative agency, court, commission, department, board, or other governmental subdivision, legislature, rulemaking board, tribunal, or other governmental authority having jurisdiction over the Parties, their respective facilities, or the respective services they provide, and exercising or entitled to exercise any administrative, executive, police, or taxing authority or power; provided, however, that such term does not include the Interconnection Customer, the Area EPS Operator, or any Affiliate thereof. The Minnesota Public Utilities Commission is the authority governing interconnection requirements unless otherwise provided for in the Minnesota Technical Requirements.

**Interconnection Agreement** – The terms and conditions between the Area EPS Operator and Interconnection Customer (Parties). See MN DIP Section 1.1.5 for when the Uniform Statewide Contract or MN DIA applies.

**Interconnection Application** – The Interconnection Customer's request to interconnect a new or modified, as described in MN DIP Section 1.6, Distributed Energy Resource. See MN DIP Attachment 2 Simplified Application Form and MN DIP Attachment 3 Interconnection Application Form.

**Interconnection Customer** – The person or entity, including the Area EPS Operator, whom will be the owner of the DER that proposes to interconnect a DER(s) with the Area EPS Operator's Distribution System. The Interconnection Customer is responsible for ensuring the Distributed Energy Resource(s) is designed, operated and maintained in compliance with the Minnesota Technical Requirements.

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MINNESOTA DISTRIBUTED ENERGY RESOURCE  
INTERCONNECTION AGREEMENT (MN DIA)  
(Continued)

Section No. 10  
Original Sheet No. 276

**Interconnection Facilities** – The Area EPS Operator's Interconnection Facilities and the Interconnection Customer's Interconnection Facilities. Collectively, Interconnection Facilities include all facilities and equipment between the Distributed Energy Resource and Customer Interconnection System and the Point of Common Coupling, including any modification, additions or upgrades that are necessary to physically and electrically interconnect the Distributed Energy Resource to the Area EPS Operator's System. Some examples of Customer Interconnection Facilities include: supplemental DER devices, inverters, and associated wiring and cables up to the Point of DER Connection. Some examples of Area EPS Operator Interconnection Facilities include sole use facilities; such as, line extensions, controls, relays, switches, breakers, transformers and shall not include Distribution Upgrades or Network Upgrades.

**Material Modification** – A modification to machine data, equipment configuration or to the interconnection site of the DER at any time after receiving notification by the Area EPS Operator of a complete Interconnection Application that has a material impact on the cost, timing, or design of any Interconnection Facilities or Upgrades, or a material impact on the cost, timing or design of any Interconnection Application with a later Queue Position or the safety or reliability of the Area EPS.<sup>1</sup>

**MN DIA** - The Minnesota Distributed Energy Resource Interconnection Agreement. See MN DIP Section 1.1.5 for when the Uniform Statewide Contract or MN DIA applies.

**MN DIP** – The Minnesota Distributed Energy Resource Interconnection Process. The statewide interconnection standards.

**MN Technical Requirements or Minnesota Technical Requirements** – The term including all of the DER technical interconnection requirement documents for the state of Minnesota; including: 1) Attachment 2 Distributed Generation Interconnection Requirements established in the Commission's September 28, 2004 Order in E-999/CI-01-1023) until superseded and upon Commission approval of updated Minnesota DER Technical Interconnection and Interoperability Requirements in E-999/CI-16-521 (anticipated February 2019.)

<sup>1</sup> A Material Modification shall include, but may not be limited to, a modification from the approved Interconnection Application that: (1) changes the physical location of the point of common coupling; such that it is likely to have an impact on technical review; (2) increases the nameplate rating or output characteristics of the Distributed Energy Resource; (3) changes or replaces generating equipment, such as generator(s), inverter(s), transformers, relaying, controls, etc., and substitutes equipment that is not like-kind substitution in certification, size, ratings, impedances, efficiencies or capabilities of the equipment; (4) changes transformer connection(s) or grounding; and/or (5) changes to a certified inverter with different specifications or different inverter control settings or configuration. A Material Modification shall not include a modification from the approved Interconnection Application that: (1) changes the ownership of a Distributed Energy Resource; (2) changes the address of the Distributed Energy Resource, so long as the physical point of common coupling remains the same; (3) changes or replaces generating equipment such as generator(s), inverter(s), solar panel(s), transformers, relaying, controls, etc. and substitutes equipment that is a like-kind substitution in certification, size, ratings, impedances, efficiencies or capabilities of the equipment; and/or (4) increases the DC/AC ratio but does not increase the maximum AC output capability of the Distributed Energy Resource.

(Continued on Sheet No. 10-277)

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**Nameplate Rating:** nominal voltage (V), current (A), maximum active power (kWac), apparent power (kVA), and reactive power (kvar) at which a DER is capable of sustained operation. For a Local EPS with multiple DER units, the aggregate nameplate rating is equal to the sum of all DERs nameplate rating in the Local EPS, not including aggregate capacity limiting mechanisms such as coincidence factors, plant controller limits, etc. that may be applicable for specific cases. (Aggregate Nameplate Rating). The nameplate ratings referenced in the MN DIP are alternating current nameplate DER ratings See MN DIP Section 5.14 on Capacity of the Distributed Energy Resource.

**Network Upgrades** – Additions, modifications, and upgrades to the Transmission System required at or beyond the point at which the DER interconnects with the Area EPS Operator's System to accommodate the interconnection with the DER to the Area EPS Operator's System. Network Upgrades do not include Distribution Upgrades.

**Notice of Dispute** – The disputing Party shall provide the other Party this written notice containing the relevant known facts pertaining to the dispute, the specific dispute and the relief sought, and express notice by the disputing Party that it is invoking the procedures under MN DIP 5.3.

**Operating Requirements** – Any operating and technical requirements that may be applicable due to the Transmission Provider's technical requirements or Minnesota Technical Requirements, including those set forth in this Agreement.

**Party or Parties** – The Area EPS Operator and the Interconnection Customer.

**Point of Common Coupling (PCC)** – The point where the Interconnection Facilities connect with the Area EPS Operator's Distribution System. See figure 1. Equivalent, in most cases, to "service point" as specified by the Area EPS Operator and described in the National Electrical Code and the National Electrical Safety Code.

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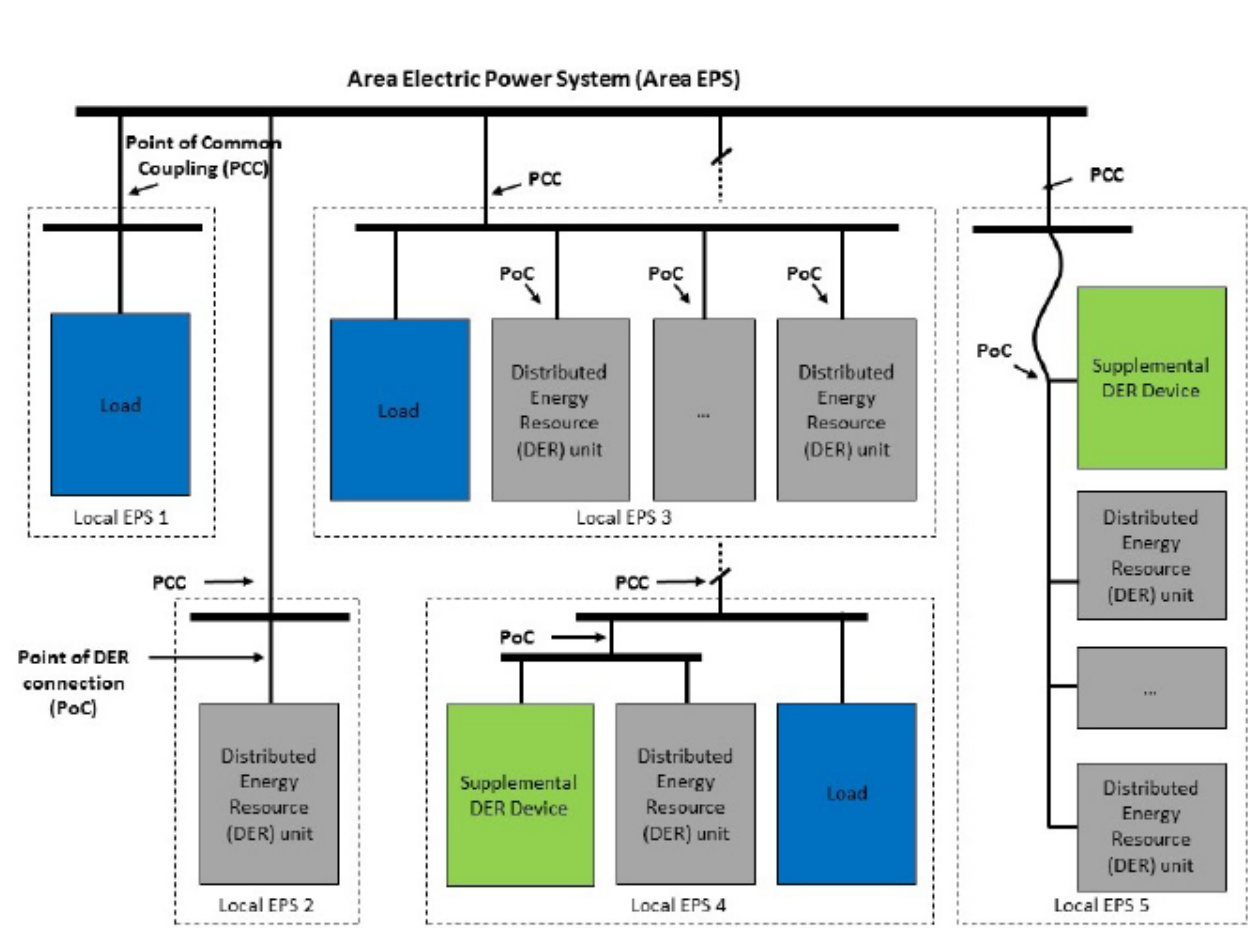
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Docket No. E002/M-18-714	President, Northern States Power Company, a Minnesota corporation	Order Date:



**Figure 1: Point of Common Coupling and Point of DER Connection**  
 (Source: IEEE 1547)

**Point of DER Connection (PoC)** – When identified as the Reference Point of Applicability, the point where an individual DER is electrically connected in a Local EPS and meets the requirements of this standard exclusive of any load present in the respective part of the Local EPS (e.g., terminals of the inverter when no supplemental DER device is required.) For DER Unit(s) that are not self-sufficient to meet the requirements without (a) supplemental DER device(s), the point of DER connection is the point where the requirements of this standard are met by DER in conjunction with (a) supplemental DER device(s) exclusive of any load present in the respective part of the Local EPS.

**Queue Position** – The order of a valid Interconnection Application, relative to all other pending valid Interconnection Applications, that is established based upon the date- and time- of receipt of the complete Interconnection Application as described in MN DIP sections 1.5.2 and 1.8.

(Continued on Sheet No. 10-279)

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MINNESOTA DISTRIBUTED ENERGY RESOURCE  
INTERCONNECTION AGREEMENT (MN DIA)  
(Continued)

Section No. 10  
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**Reasonable Efforts** – With respect to an action required to be attempted or taken by a Party under these procedures, efforts that are timely and consistent with Good Utility Practice and are otherwise substantially equivalent to those a Party would use to protect its own interests.

**Reference Point of Applicability** – The location, either the Point of Common Coupling or the Point of DER Connection, where the interconnection and interoperability performance requirements specified in IEEE 1547 apply. With mutual agreement, the Area EPS Operator and Customer may determine a point between the Point of Common Coupling and Point of DER Connection. See Minnesota DER Technical Interconnection and Interoperability Requirements for more information.

**Simplified Process** – The procedure for evaluating an Interconnection Application for a certified inverter-based DER no larger than 20 kW that uses the screens described in MN DIP section 3.2. The Simplified process includes simplified procedures. MN DIP Attachment 2 Simplified Application Form includes a brief set of terms and conditions and the option for an Interconnection Agreement described in MN DIP 1.1.5. See MN DIP Section 2 Simplified Process.

**Study Process** – The procedure for evaluating an Interconnection Application that includes the MN DIP Section 4 scoping meeting, system impact study, and facilities study.

**Tariff** – The Area EPS Operator's Tariff filed in compliance with the Minnesota Distributed Energy Resource Interconnection Procedures (MN DIP) and approved by the Minnesota Public Utilities Commission (MPUC or Commission).

**Transmission Owner** – The entity that owns, leases or otherwise possesses an interest in the portion of the Transmission System relevant to the Interconnection.

**Transmission Provider** – The entity (or its designated agent) that owns, leases, controls, or operates transmission facilities used for the transmission of electricity. The term Transmission Provider includes the Transmission Owner when the Transmission Owner is separate from the Transmission Provider. The Transmission Provider may include the Independent System Operator or Regional Transmission Operator.

**Transmission System** – The facilities owned, leased, controlled or operated by the Transmission Provider or the Transmission Owner that are used to provide transmission service. See the Commission's July 26, 2000 Order Adopting Boundary Guidelines for Distinguishing Transmission from Generation and Distribution Assets in Docket No. E-999/CI-99/1261.

**Uniform Statewide Contract** – State of Minnesota's standard, uniform contract that must be applied to all qualifying new and existing interconnections between a utility and DER having capacity less than 40 kilowatts if interconnecting with a cooperative or municipal utility and 1,000 kilowatts if interconnecting with a public utility. (Minn. Rules 7835.9910)

**Upgrades** – The required additions and modifications to the Area EPS Operator's Transmission or Distribution System at or beyond the Point of Interconnection. Upgrades may be Network Upgrades or Distribution Upgrades. Upgrades do not include Interconnection Facilities.

(Continued on Sheet No. 10-280)

Date Filed: By: Christopher B. Clark Effective Date:  
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Attachment 2: Description and Costs of the Distributed Energy Resource, Interconnection Facilities, and Metering Equipment

Equipment, including the Distributed Energy Resource, Interconnection Facilities, and metering equipment shall be itemized and identified as being owned by the Interconnection Customer or the Area EPS Operator. The Area EPS Operator will provide a good faith estimate itemized cost, including administrative overheads, of its Interconnection Facilities and metering equipment, and a good faith estimate itemized cost of the annual operation and maintenance expenses associated with its Interconnection Facilities and metering equipment. The Area EPS shall inform the Interconnection Customer of the option to either pay the metering costs upfront or through a monthly metering fee and provide the customer a copy of the tariff with the metering fee pursuant to MN DIP 5.4.

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

**MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2**

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**MINNESOTA DISTRIBUTED ENERGY RESOURCE  
INTERCONNECTION AGREEMENT (MN DIA)  
(Continued)**

Section No. 10  
Original Sheet No. 281

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Attachment 3: One-line Diagram Depicting the Distributed Energy Resource, Interconnection Facilities, Metering  
Equipment, and Upgrades

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(Continued on Sheet No. 10-282)

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Attachment 4: Milestones

The Milestone in line (1) below may be a calendar date. All other dates in this Attachment 4 may be number of Business Days from the calendar date in line (1) or from the completion of a different Milestone described in a specified line number. Similarly, the anticipated In-Service Date may be based on the number of Business Days from the completion of a specified line number.

In-Service Date: \_\_\_\_\_

Critical milestones and responsibility as agreed to by the Parties:

	<u>Milestone/Anticipated Date</u>	<u>Responsible Party</u>
(1)	_____	_____
(2)	_____	_____
(3)	_____	_____
(4)	_____	_____
(5)	_____	_____
(6)	_____	_____
(7)	_____	_____
(8)	_____	_____
(9)	_____	_____
(10)	_____	_____

Agreed to by:

For the Area EPS Operator \_\_\_\_\_ Date \_\_\_\_\_

For the Transmission Owner (If Applicable) \_\_\_\_\_ Date \_\_\_\_\_

For the Interconnection Customer \_\_\_\_\_ Date \_\_\_\_\_

(Continued on Sheet No. 10-283)

Date Filed: \_\_\_\_\_ By: Christopher B. Clark Effective Date: \_\_\_\_\_  
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Minneapolis, Minnesota 55401

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**MINNESOTA DISTRIBUTED ENERGY RESOURCE  
INTERCONNECTION AGREEMENT (MN DIA)  
(Continued)**

Section No. 10  
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Attachment 5: Additional Operating and Maintenance Requirements for the Area EPS Operator's Distribution System and Affected Systems Needed to Support the Interconnection Customer's Needs

The Area EPS Operator shall also provide requirements that must be met by the Interconnection Customer prior to initiating parallel operation with the Area EPS Operator's Distribution System. Additional operating and maintenance requirements for an Affected System needed to support the Interconnection Customer's needs may be addressed in a separate agreement as described in Article 5.3.

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(Continued on Sheet No. 10-284)

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Minneapolis, Minnesota 55401

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**MINNESOTA DISTRIBUTED ENERGY RESOURCE  
INTERCONNECTION AGREEMENT (MN DIA)  
(Continued)**

Section No. 10  
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Attachment 6: Area EPS Operator's Description of Distribution and Network Upgrades and Good Faith Estimates of Upgrade Costs

The Area EPS Operator shall describe Distribution and Network Upgrades and provide an itemized good faith estimate of the costs, including administrative overheads, of the Upgrades and annual operation and maintenance expenses associated with such Upgrades. The Area EPS Operator shall functionalize Upgrade costs and annual expenses as either transmission or distribution related. Additional Distribution or Network Upgrades required for an Affected System may be addressed in a separate agreement as described in Article 5.3.

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Date Filed: By: Christopher B. Clark Effective Date:  
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Docket No. E002/M-18-714 Order Date:

Assignment of Minnesota Distributed Energy Resource Interconnection Agreement (MN DIA)

This is an Assignment of Interconnection Agreement ("Assignment").

There is an Interconnection Agreement, including any and all Attachments thereto including any and all amendments ("Agreement") by and between Northern States Power Company, a Minnesota corporation, doing business as Xcel Energy ("Area EPS Operator"), having its principal office and place of business located at 414 Nicollet Mall, Minneapolis, Minnesota 55401, and \_\_\_\_\_ ("Assignor"), originally signed by the Area EPS Operator on \_\_\_\_\_ for a Distributed Energy Resource (DER) with a Nameplate Rating of \_\_\_\_\_ kW (AC) located at \_\_\_\_\_.

The Assignor intends to convey its interest in the above-referenced DER to [insert name of new purchaser of the service address shown in Interconnection Application and in one line diagram attached to Agreement] ("Assignee"), and the Assignor intends to assign the Agreement to the Assignee.

Upon the execution of this Assignment by the Assignor, Assignee and the Area EPS Operator, agree as follows:

1. **Capitalized Terms.** Capitalized terms used but not defined herein shall have the meanings set forth in the Agreement.
2. **Consent to Assignment.** The Assignor hereby irrevocably assigns the Agreement in all respects to the Assignee and the Assignee accepts the assignment thereof in all respects.
3. **Amendment to Agreement.** The Area EPS Operator consents to this assignment and, as assigned, the Agreement is hereby amended so that wherever the name of the Assignor is used therein it shall mean the Assignee. It is further agreed that all terms and conditions of the Agreement, as amended by this Assignment, shall remain in full force and effect.
4. **Payments by Area EPS Operator.** Any and all payments made by Area EPS Operator under the Agreement to either the Assignor or the Assignee shall be deemed to have been made to both and shall discharge the Area EPS Operator from any further liability with regard to said payment.
5. **Financial Obligations of Assignor and Assignee.** Any and all financial liability, including but not limited to amounts due, from the Interconnection Customer to the Area EPS Operator, occurring or accruing under the Agreement on or before the date of the signature of the Area EPS Operator to this Assignment shall be deemed to be the obligation of both the Assignor and Assignee, and the Area EPS Operator may recover any such amounts jointly and severally from the Assignor and Assignee.
6. **Contact information.** The following information updates and replaces the designated information as set forth on page 3 of the Agreement, and in Articles 13.1, 13.2, 13.3, and 13.4 of the Agreement.

(Continued on Sheet No. 10-286)

Date Filed: \_\_\_\_\_ By: Christopher B. Clark Effective Date: \_\_\_\_\_  
President, Northern States Power Company, a Minnesota corporation  
Docket No. E002/M-18-714 Order Date: \_\_\_\_\_



**ASSIGNMENT FOR THE MN DIA  
(Continued)**

Section No. 10  
Original Sheet No. 287

<b>Article 13.4 Designated Operating Representative</b>	<u>Interconnection Customer's Operating Representative:</u>
	<u>Interconnection Customer:</u> _____
	<u>Attention:</u> _____
	<u>Address:</u> _____
	<u>City:</u> _____ <u>State:</u> _____ <u>Zip:</u> _____
	<u>Phone:</u> _____ <u>Email:</u> _____

**7. Signatures.** Facsimile or electronic signatures, or signatures to this 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.

The Area EPS Operator, Assignor, and Assignee have executed this Assignment as of the dates as set forth below.

**Assignor** ( \_\_\_\_\_ )

Signature: \_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

**Area EPS Operator** (Northern States Power Company, a Minnesota corporation)

Signature: \_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

**Assignee** ( \_\_\_\_\_ )

Signature: \_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

Date Filed: \_\_\_\_\_ By: Christopher B. Clark Effective Date: \_\_\_\_\_  
President, Northern States Power Company, a Minnesota corporation  
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**Interconnection Agreement**

**State of Minnesota**

**Interconnection Agreement For Use with Federal Agencies with Distributed Generation Under 2000 kW, where all electrical facilities behind the primary meter are not owned by Xcel Energy**

For the Interconnection of Extended Parallel Distributed Generation Systems with Electric Utilities

This Generating System Interconnection Agreement is entered into by and between Xcel Energy, and **(INSERT NAME OF APPLICABLE FEDERAL AGENCY)** (the "Interconnection Customer"). The Interconnection Customer and Xcel Energy are sometimes also referred to in this Agreement jointly as "Parties" or individually as "Party".

In consideration of the mutual promises and obligations stated in this Agreement and its attachments, the Parties agree as follows:

**I. SCOPE AND PURPOSE**

- A. Establishment of Point of Common Coupling. This Agreement is intended to provide for the Interconnection Customer to interconnect and operate a Generation System with a total Nameplate Capacity of 2000 kW or less in parallel with Xcel Energy at the location identified in Exhibit C and shown in the Exhibit A one-line diagram.
- B. This Agreement governs the facilities required to and contains the terms and condition under which the Interconnection Customer may interconnect the Generation System to Xcel Energy. This Agreement does not authorize the Interconnection Customer to export power or constitute an agreement to purchase or wheel the Interconnection Customer's power. Other services that the Interconnection Customer may require from Xcel Energy, or others, may be covered under separate agreements.
- C. To facilitate the operation of the Generation System, this agreement also allows for the occasional and inadvertent export of energy to Xcel Energy. The amount, metering, billing and accounting of such inadvertent energy exporting shall be governed by a separate Agreement. This Agreement does not constitute an agreement by Xcel Energy to purchase or pay for any energy, inadvertently or intentionally exported, unless expressly noted in a separately executed power purchase agreement (PPA).
- D. This agreement does not constitute a request for, nor the provision of any transmission delivery service or any local distribution delivery service.
- E. The Technical Requirements for interconnection are covered in a separate Technical Requirements document know as, the "State of Minnesota Distributed Generation Interconnection Requirements", a copy of which as been made available to the Interconnection Customer and incorporated and made part of this Agreement by this reference.

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**INTERCONNECTION AGREEMENT – FEDERAL AGENCY  
DISTRIBUTED GENERATION UNDER 2000 kW  
(CLOSED TO NEW APPLICANTS) (Continued)**

Section No. 7  
1st Revised Sheet No. 76

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**II. DEFINITIONS**

- A. "Area EPS" is an electric power system (EPS) that serves Local EPS's. For the purpose of this agreement, the Xcel Energy system is the Area EPS. Note: Typically, Xcel Energy has primary access to public rights-of-way, priority crossing of property boundaries, etc.
- B. "Area EPS Operator" is the entity that operates the electric power system. For purpose of this agreement, Xcel Energy is the Are EPS Operator.
- C. "Dedicated Facilities" is the equipment that is installed due to the interconnection of the Generation System and not required to serve other Xcel Energy customers.
- D. "EPS" (Electric Power System) are facilities that deliver electric power to a load. Note: This may include generation units.
- E. "Extended Parallel" means the Generation System is designed to remain connected with Xcel Energy for an extended period of time.
- F. "Generation" is any device producing electrical energy, i.e., rotating generators driven by wind, steam turbines, internal combustion engines, hydraulic turbines, solar, fuel cells, etc.; or any other electric producing device, including energy storage technologies.
- G. "Generation Interconnection Coordinator" is the person or persons designated by Xcel Energy to provide a single point of coordination with the Applicant for the generation interconnection process.
- H. "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.
- I. "Interconnection Customer" is the party or parties who will own/operate the Generation System and are responsible for meeting the requirements of the agreements and Technical Requirements. This could be the Generation System applicant, installer, owner, designer, or operator.
- J. "Local EPS" is an electric power system (EPS) contained entirely within a single premises or group of premises.
- K. "Nameplate Capacity" is the total nameplate capacity rating of all the Generation included in the Generation System. For this definition the "standby" and/or maximum rated kW capacity on the nameplate shall be used.
- L. "Point of Common Coupling" is the point where the Local EPS is connected to Xcel Energy

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(Continued on Sheet No. 7-77)

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**INTERCONNECTION AGREEMENT – FEDERAL AGENCY  
DISTRIBUTED GENERATION UNDER 2000 kW  
(CLOSED TO NEW APPLICANTS) (Continued)**

Section No. 7  
1st Revised Sheet No. 77

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**II. DEFINITIONS (Continued)**

- M. "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
- N. "Technical Requirements" are the State of Minnesota Requirements for Interconnection of Distributed Generation

**III. DESCRIPTION OF INTERCONNECTION CUSTOMER'S GENERATION SYSTEM**

- A) A description of the Generation System, including a single-line diagram showing the general arrangement of how the Interconnection Customer's Generation System is interconnected with Xcel Energy's distribution system, is attached to and made part of this Agreement as Exhibit A. The single-line diagram shows the following:
  - 1) Point of Delivery (if applicable)
  - 2) Point of Common Coupling
  - 3) Location of Meter(s)
  - 4) Ownership of the equipment
  - 5) Generation System total Nameplate Capacity: \_\_\_\_ kW **(insert amount, must be less than 2000 kW under this Agreement)**
  - 6) Scheduled operational (on-line) date for the Generation System.

**IV. RESPONSIBILITIES OF THE PARTIES**

- A) The Parties shall perform all obligations of this Agreement in accordance with all applicable laws and regulations, operating requirements and good utility practices.
- B) Interconnection Customer shall construct, operate and maintain the Generation System in accordance with the applicable manufacturer's recommended maintenance schedule, the Technical Requirements and in accordance with this Agreement.

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(Continued on Sheet No. 7-78)

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**INTERCONNECTION AGREEMENT – FEDERAL AGENCY  
DISTRIBUTED GENERATION UNDER 2000 kW  
(CLOSED TO NEW APPLICANTS) (Continued)**

Section No. 7  
1st Revised Sheet No. 78

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**V. CONSTRUCTION**

The Parties agree to cause their facilities or systems to be constructed in accordance with the laws of the State of Minnesota and to meet or exceed applicable codes and standards provided by the NESC (National Electrical Safety Code), ANSI (American National Standards Institute), IEEE (Institute of Electrical and Electronic Engineers), NEC (National Electrical Code), UL (Underwriter's Laboratory), Technical Requirements and local building codes and other applicable ordinances in effect at the time of the installation of the Generation System.

**VI. DOCUMENTS INCLUDED WITH THIS AGREEMENT**

- A) This agreement includes the following exhibits, which are specifically incorporated herein and made part of this Agreement by this reference: *(if any of these Exhibits are deemed not applicable for this Generation System installation, they may be omitted from the final Agreement by Xcel Energy.)*
- 1) Exhibit A – Description of Generation System and single-line diagram. This diagram shows all major equipment, 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. Exhibit B has been intentionally omitted.
  - 2) Exhibit C – Engineering Data Submittal – A standard form that provides the engineering and operating information about the Generation System.

**VII. TERMS AND TERMINATION**

- A) This Agreement shall become effective as of the date when both the Interconnection Customer and Xcel Energy have both signed this Agreement. The Agreement shall continue in full force and effect until the earliest date that one of the following events occurs:
- 1) The Parties agree in writing to terminate the Agreement; or
  - 2) The Interconnection Customer may terminate this agreement at any time, by written notice to Xcel Energy, prior to the completion of the final acceptance testing of the Generation System by Xcel Energy. Once the Generation System is operational, then VII.A.3 applies. Upon receipt of a cancellation notice, Xcel Energy shall take reasonable steps to minimize additional costs to the Interconnection Customer, where reasonably possible; or

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(Continued on Sheet No. 7-79)

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**INTERCONNECTION AGREEMENT – FEDERAL AGENCY  
DISTRIBUTED GENERATION UNDER 2000 kW  
(CLOSED TO NEW APPLICANTS) (Continued)**

Section No. 7  
1st Revised Sheet No. 79

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**VII. TERMS AND TERMINATION (Continued)**

- 3) Once the Generation System is operational, the Interconnection Customer may terminate this agreement after 30 days written notice to Xcel Energy, or
- 4) Xcel Energy may terminate this agreement after 30 days written notice to the Interconnection Customer if:
  - a) The Interconnection Customer fails to interconnect and operate the Generation System per the terms of this Agreement; or
  - b) The Interconnection Customer fails to take all corrective actions specified in Xcel Energy's written notice that the Generation System is out of compliance with the terms of this Agreement, within the time frame set forth in such notice, or
  - c) If the Interconnection Customer fails to complete Xcel Energy's final acceptance testing of the generation system within 24 months of the date proposed under section VII.A.
- B) Upon termination of this Agreement the Generation System shall be disconnected from Xcel Energy. The termination of this Agreement shall not relieve either Party of its liabilities and obligations, owed or continuing, at the time of the termination.

**VIII. OPERATIONAL ISSUES**

Each Party will, at its own cost and expense, operate, maintain, repair and inspect, and shall be fully responsible for, the facilities that it now or hereafter may own, unless otherwise specified.

- A) Technical Standards: The Generation System shall be installed and operated by the Interconnection Customer consistent with the requirements of this Agreement; the Technical Requirements; the applicable requirements located in the National Electrical Code (NEC); the applicable standards published by the American National Standards Institute (ANSI) and the Institute of Electrical and Electronic Engineers (IEEE); and local building and other applicable ordinances in effect at the time of the installation of the Generation System.
- B) Right of Access: At all times, Xcel Energy's personnel shall have access to the disconnect switch of the Generation System for any reasonable purpose in connection with the performance of the obligations imposed on it by this Agreement, to meet its obligation to operate the electric power system safely and to provide service to its customers. If necessary for the purposes of this Agreement, the Interconnection Customer shall allow Xcel Energy access to Xcel Energy's equipment and facilities located on the premises.

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(Continued on Sheet No. 7-80)

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**INTERCONNECTION AGREEMENT – FEDERAL AGENCY  
DISTRIBUTED GENERATION UNDER 2000 kW  
(CLOSED TO NEW APPLICANTS) (Continued)**

Section No. 7  
1st Revised Sheet No. 80

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**VIII. OPERATIONAL ISSUES (Continued)**

- C) Electric Service Supplied: will supply the electrical requirements of the Local EPS that are not supplied by the Generation System. Such electric service shall be supplied, to the Interconnection Customer's Local EPS, under the rate schedules applicable to the Customer's class of service as revised from time to time by Xcel Energy.
  
- D) Operation and Maintenance: Not applicable.
  
- E) Cooperation and Coordination: Both Xcel Energy and the Interconnection Customer shall communicate and coordinate their operations, so that the normal operation of the electric power system does not unduly effect or interfere with the normal operation of the Generation System and the Generation System does not unduly effect or interfere with the normal operation of the electric power system. Under abnormal operations of either the Generation System or the Xcel Energy system, the responsible Party shall provide reasonably timely communication to the other Party to allow mitigation of any potentially negative effects of the abnormal operation of their system.
  
- F) Disconnection of Unit: Xcel Energy may disconnect the Generation System as reasonably necessary, for termination of this Agreement; non-compliance with this Agreement; system emergency, imminent danger to the public or Xcel Energy personnel; routine maintenance, repairs and modifications to the electric power system. When reasonably possible, Xcel Energy shall provide prior notice to the Interconnection Customer explaining the reason for the disconnection. If prior notice is not reasonably possible, Xcel Energy shall after the fact, provide information to the Interconnection Customer as to why the disconnection was required. It is agreed that Xcel Energy shall have no liability for any loss of sales or other damages, including all consequential damages for the loss of business opportunity, profits or other losses, regardless of whether such damages were foreseeable, for the disconnection of the Generation System per this Agreement. Xcel Energy shall expend reasonable effort to reconnect the Generation System in a timely manner and to work towards mitigating damages and losses to the Interconnection Customer where reasonably possible.

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(Continued on Sheet No. 7-81)

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**INTERCONNECTION AGREEMENT – FEDERAL AGENCY  
DISTRIBUTED GENERATION UNDER 2000 kW  
(CLOSED TO NEW APPLICANTS) (Continued)**

Section No. 7  
1st Revised Sheet No. 81

**VIII. OPERATIONAL ISSUES (Continued)**

G) Modifications to the Generation System: When reasonably possible the Interconnection Customer shall notify Xcel Energy, in writing, of plans for any modifications to the Generation System interconnection equipment, including all information needed by Xcel Energy as part of the review described in this paragraph, at least twenty (20) business days prior to undertaking such modification(s). Modifications to any of the interconnection equipment, including, all interconnection required protective systems, the generation control systems, the transfer switches/breakers, interconnection protection VTs & CTs, and Generation System capacity, shall be included in the notification to Xcel Energy. When reasonably possible the Interconnection Customer agrees not to commence installation of any modifications to the Generating System until Xcel Energy has approved the modification, in writing, which approval shall not be unreasonably withheld. Xcel Energy shall have a minimum of five (5) business days to review and respond to the planned modification. Xcel Energy shall not take longer than a maximum of ten (10) business days, to review and respond to the modification after the receipt of the information required to review the modifications. When it is not reasonably possible for the Interconnection Customer to provide prior written notice, the Interconnection Customer shall provide written notice to Xcel Energy as soon as reasonably possible, after the completion of the modification(s).

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H) Permits and Approvals: The Interconnection Customer shall obtain all environmental and other permits lawfully required by governmental authorities prior to the construction of the Generation System. The Interconnection Customer shall also maintain these applicable permits and compliance with these permits during the term of this Agreement.

**IX. LIMITATION OF LIABILITY**

A) Each Party's liability to the other Party for failure to perform its obligations under this Agreement, 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.

B) Notwithstanding any other provision in this Agreement, with respect to Xcel Energy's provision of electric service to any customer including the Interconnection Customer, the Xcel Energy's liability to such customer shall be limited as set forth in Xcel Energy's tariffs and terms and conditions for electric service, and shall not be affected by the terms of this Agreement.

(Continued on Sheet No. 7-82)

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**INTERCONNECTION AGREEMENT – FEDERAL AGENCY  
DISTRIBUTED GENERATION UNDER 2000 kW  
(CLOSED TO NEW APPLICANTS) (Continued)**

Section No. 7  
1st Revised Sheet No. 82

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**X. 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 Agreement, and if it cannot be resolved by the Parties within thirty (30) days after written notice of the dispute to the other Party, the Parties agree to submit the dispute to mediation by a mutually acceptable mediator, in a mutually convenient location in the State of Minnesota. The Parties agree to participate in good faith in the mediation for a period of 90 days. If the parties are not successful in resolving their disputes through mediation, then the Parties may refer the dispute for resolution to the Minnesota Public Utilities Commission (MPUC), which shall maintain continuing jurisdiction over this Agreement.

**XI. INSURANCE**

- A) In connection with the Interconnection Customer's performance of its duties and obligations under this Agreement, the Interconnection Customer agrees that during the term of the Agreement it shall self-insure, subject to and in accordance with the Federal Tort Claims Act, 28 U.S.C 1346(b) and 2671-2680, the Antideficiency Act, 31 U.S.C. 1341, 1342, 1349, 1350, and 1351, and the Automatic Payment of Judgments Act, 31 U.S.C. 1304 (collectively "Federal Statutes") to cover (with a combined single limit of not more than two million dollars (\$2,000,000) for each occurrence) against claims resulting from bodily injury, wrongful death, and property damage arising out of the Interconnection Customer's ownership and/or operations of the Generation System under this Agreement. Subject to and in accordance with the Federal Statutes, Interconnection Customer's self-insurance shall include Xcel Energy as an additional insured and shall be primary and not excess to or contributing with any insurance or self-insurance maintained by Xcel Energy.
  
- B) Evidence of the insurance required in Section XI.A. shall state that coverage provided is primary and is not excess to or contributing with any insurance or self-insurance maintained by Xcel Energy.
  
- C) Failure of the Interconnection Customer or Xcel Energy to enforce the minimum levels of insurance does not relieve the Interconnection Customer from maintaining such levels of insurance or relieve the Interconnection Customer of any liability.
  
- D) All insurance certificates, statements of self-insurance, endorsements, cancellations, terminations, alterations, and material changes of such insurance shall be issued and submitted to the Generation Interconnection Coordinator assigned.

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(Continued on Sheet No. 7-82)

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Docket No. E002/M-18-714

Order Date:

**XII. MISCELLANEOUS**

**A) FORCE MAJEURE**

- 1) An event of Force Majeure means any act of God, act of the public enemy, war, insurrection, riot, fire, storm or flood, explosion, breakage or accident to machinery or equipment, any curtailment, order, regulation or restriction imposed by governmental, military or lawfully established civilian authorities, or any other cause beyond a Party's control. An event of Force Majeure does not include an act of negligence or intentional wrongdoing.
- 2) Neither Party will be considered in default of any obligation hereunder if such Party is prevented from fulfilling the obligation due to an event of Force Majeure. However, a Party whose performance under this Agreement is hindered by an event of Force Majeure shall make all reasonable efforts to perform its obligations hereunder.

**B) NOTICES**

- 1) Any written notice, demand, or request required or authorized in connection with this Agreement ("Notice") shall be deemed properly given if delivered in person or sent by first class mail, postage prepaid, to the person specified below:
  - a) Xcel Energy – ATTN: **(insert contact name, position and address)**
  - b) If to Interconnection Customer:  
  
**(insert contact name, position and address)**
- 2) A Party may change its address for notices at any time by providing the other Party written notice of the change, in accordance with this Section.
- 3) The Parties may also designate operating representatives to conduct the daily communications, which may be necessary or convenient for the administration of this Agreement. Such designations, including names, addresses, and phone numbers may be communicated or revised by one Party's notice to the other Party.

**C) ASSIGNMENT**

The Interconnection Customer shall not assign its rights nor delegate its duties under this Agreement without Xcel Energy's written consent. Any assignment or delegation the Interconnection Customer makes without Xcel Energy's written consent shall not be valid. Xcel Energy shall not unreasonably withhold its consent to the Generating Entities assignment of this Agreement.

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(Continued on Sheet No. 7-84)

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**INTERCONNECTION AGREEMENT – FEDERAL AGENCY  
DISTRIBUTED GENERATION UNDER 2000 kW  
(CLOSED TO NEW APPLICANTS) (Continued)**

Section No. 7  
1st Revised Sheet No. 84

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**XII. MISCELLANEOUS (Continued)**

**D) NON-WAIVER**

None of the provisions of this Agreement shall be considered waived by a Party unless such waiver is given in writing. The failure of a Party to insist in any one or more instances upon strict performance of any of the provisions of this Agreement or to take advantage of any of its rights hereunder shall not be construed as a waiver of any such provisions or the relinquishment of any such rights for the future, but the same shall continue and remain in full force and effect.

**E) GOVERNING LAW AND INCLUSION OF XCEL ENERGY'S TARIFFS AND RULES.**

- 1) The laws of the United States of America and, to the extent that there is no applicable or controlling federal law, the laws of the State of Minnesota, shall govern the interpretation, construction, and validity of this Agreement, regardless of any principles of choice of law or conflicts of law.
- 2) The interconnection and services provided under this Agreement shall at all times be subject to the terms and conditions set forth in the tariff schedules and rules applicable to the electric service provided by Xcel Energy, which tariff schedules and rules are hereby incorporated into this Agreement by this reference.
- 3) Notwithstanding any other provisions of this Agreement, Xcel Energy shall have the right to unilaterally file with the MPUC, pursuant to the MPUC's rules and regulations, an application for change in rates, charges, classification, service, tariff or rule or any agreement relating thereto.

**F) AMENDMENT AND MODIFICATION**

This Agreement can only be amended or modified by a writing signed by both Parties.

**G) ENTIRE AGREEMENT**

This Agreement, including all attachments, exhibits, and appendices, constitutes the entire Agreement between the Parties with regard to the interconnection of the Generation System of the Parties at the Point(s) of Common Coupling expressly provided for in this Agreement and supersedes all prior agreements, or understandings, whether verbal or written. It is expressly acknowledged that the Parties may have other agreements covering other services not expressly provided for herein, which agreements are unaffected by this Agreement. Each party also represents that in entering into this Agreement, it has not relied on the promise, inducement, representation, warranty, agreement or other statement not set forth in this Agreement or in the incorporated attachments, exhibits and appendices.

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(Continued on Sheet No. 7-85)

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**INTERCONNECTION AGREEMENT – FEDERAL AGENCY  
DISTRIBUTED GENERATION UNDER 2000 kW  
(CLOSED TO NEW APPLICANTS) (Continued)**

Section No. 7  
1st Revised Sheet No. 85

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**XII. MISCELLANEOUS (Continued)**

**H) CONFIDENTIAL INFORMATION**

Except as otherwise agreed or provided herein, each Party shall hold in confidence and shall not disclose confidential information, to any person (except employees, officers, representatives and agents, who agree to be bound by this section). Confidential information shall be clearly marked as such on each page or otherwise affirmatively identified. If a court, government agency or entity with the right, power, and authority to do so, requests or requires either Party, by subpoena, oral disposition, interrogatories, requests for production of documents, administrative order, or otherwise, to disclose Confidential Information, that Party shall provide the other Party with prompt notice of such request(s) or requirements(s) so that the other Party may seek an appropriate protective order or waive compliance with the terms of this Agreement. In the absence of a protective order or waiver the Party shall disclose such confidential information which, in the opinion of its counsel, the party is legally compelled to disclose. Each Party will use reasonable efforts to obtain reliable assurance that confidential treatment will be accorded any confidential information so furnished.

**I) NON-WARRANTY**

Neither by inspection, if any, or non-rejection, nor in any other way, does Xcel Energy give any warranty, expressed or implied, as to the adequacy, safety, or other characteristics of any structures, equipment, wires, appliances or devices owned, installed or maintained by the Interconnection Customer or leased by the Interconnection Customer from third parties, including without limitation the Generation System and any structures, equipment, wires, appliances or devices appurtenant thereto.

**J) NO PARTNERSHIP**

This Agreement shall not be interpreted or construed to create an association, joint venture, agency relationship, or partnership between the Parties or to impose any partnership obligation or partnership liability upon either Party. Neither Party shall have any right, power or authority to enter into any agreement or undertaking for, or act on behalf of, or to act as or be an agent or representative of, or to otherwise bind, the other Party.

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(Continued on Sheet No. 7-86)

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**INTERCONNECTION AGREEMENT – FEDERAL AGENCY  
DISTRIBUTED GENERATION UNDER 2000 kW  
(CLOSED TO NEW APPLICANTS) (Continued)**

Section No. 7  
1st Revised Sheet No. 86

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**XIII. SIGNATURES**

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

Interconnection Customer

By: \_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

Xcel Energy

By: \_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

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**COGENERATION  
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**TECHNICAL AND SPECIAL TERMS FOR  
COGENERATION AND SMALL POWER PRODUCTION**

Section No. 9  
2nd Revised Sheet No. 1

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**CAPACITY.** The capability to produce, transmit, or deliver electric energy, which is measured by the number of megawatts alternating current at the point of common coupling between a QF or NMF and a utility's electric system.

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

**GENERATION SYSTEM.** For an interconnection not subject to the MN DIP, the 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. For an interconnection subject to the MN DIP, this term shall mean Distributed Energy Resources as defined in the MN DIP.

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**INDIVIDUAL SYSTEM CAPACITY LIMITS.**

1. Customers with a facility of 40-kilowatt AC capacity or more and participating in net metering and net billing may be required to limit the total generation capacity of individual distributed generation systems by either:
  - a. for wind generation systems, limiting the total generation system capacity kilowatt alternating current to 120 percent of the customer's on-site maximum electric demand; or
  - b. for solar photovoltaic and other distributed generation, limiting the total generation system annual energy production kilowatt hours alternating current to 120 percent of the customer's on-site annual electric energy consumption.
2. Limits under paragraph 1.(a) applicable to measuring on-site maximum electric demand must be based on standard 15-minute intervals, measured during the previous 12 calendar months. If a facility subject to the demand limits under paragraph 1.(a) has either less than 12 calendar months of actual electric usage or has no demand metering available, then the means of estimating annual demand or usage for purposes of applying these limits will be based on looking at information for similarly situated customers.
3. The total generation capacity of individual distributed generation systems is determined by the total capacity of all of the customer's systems which are on the same set of aggregated meters. On-site maximum electric demand and on-site annual electric energy consumption are determined by total demand or electric energy consumption associated with the same set of aggregated meters.
4. For wind generation systems, the Company will estimate customer demand use for purposes of calculating the 120 percent rule by determining a demand-billed customer's highest billed on-site kW demand in all bills issued during the most recent calendar year. For non-demand customers, the Company shall impute the equivalent peak demand level by first determining the customer's most recent on-site annual (12-month) billed kWh sales. Those kWh sales shall be divided by the product of an assumed 30% annual load factor and the number of actual hours in that year (either 8,760 hours in a standard year or 8,784 hours in a leap year). The resulting quotient will serve as the customer's estimated on site maximum electric demand.
5. For solar photovoltaic and other distributed generation systems, where 12 months of usage data is not available, the Company will estimate customer energy use for purposes of calculating the 120 percent rule by averaging four months of usage. If four months of usage is not available, the Company will apply the limits under paragraph 1.(a) based on looking at information for similarly situated customers.

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(Continued on Sheet No. 9-1.1)

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**TECHNICAL AND SPECIAL TERMS FOR  
COGENERATION AND SMALL POWER PRODUCTION  
(Continued)**

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Section No. 9  
1st Revised Sheet No. 1.1

**INTERCONNECTION COSTS.** The reasonable costs of connection, switching, metering, transmission, distribution, safety provisions, and administrative costs incurred by the Company that are directly related to installing and maintaining the physical facilities necessary to permit interconnected operations with a qualifying facility. Costs are considered interconnection costs only to the extent that they exceed the corresponding costs which the Company would have incurred if it had not engaged in interconnected operations, but instead generated from its own facilities or purchased from other sources an equivalent amount of electric energy or capacity. Costs are considered interconnection costs only to the extent that they exceed the costs the utility would incur in selling electricity to the qualifying facility as a nongenerating customer.

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

**MN DIA.** The Minnesota Distributed Energy Resource Interconnection Agreement. See, Docket No. E999/CI-16-521.

**MN DIP.** The Minnesota Distributed Energy Resource Interconnection Process. See, Docket No. E999/CI-16-521. The MN DIA shall be considered to be part of the MN DIP.

**MN TECHNICAL REQUIREMENTS (OR MINNESOTA TECHNICAL REQUIREMENTS).** These are as defined in the MN DIP, Attachment 1, Glossary of Terms, and also include all requirements in the Operating Agreement attached to the MN DIA.

**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 or NMF in excess of the facilities and expenses recovered in the monthly metering charge.

**NET METERED FACILITY (NMF).** An electric generation facility constructed for the purpose of offsetting energy use through the use of renewable energy or high-efficiency distributed generation sources.

**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.

**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.

**QUALIFYING FACILITY (QF).** A qualifying facility is a cogeneration or small power production facility which satisfies the conditions in 18 Code of Federal Regulations Part 292.

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

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**MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2**

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**EXCESS GENERATION-AVERAGE RETAIL UTILITY ENERGY  
SERVICE  
RATE CODE A50**

Section No. 9  
25th Revised Sheet No. 2

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**AVAILABILITY**

This service corresponds to Minn. R. 7835.4012 and Minn. R. 7835.4013 (Average Retail Energy Rate) and to Paragraph 3.a of the Uniform Statewide Contract for Cogeneration and Small Power Production. Available to any qualifying facility (QF) of less than 40 kW AC capacity who receives non-time of day retail electric service from Company and offsets energy delivered by Company. The A50 Rate Code applies to the extent the energy delivered by the customer exceeds that supplied by the Company during the monthly billing period, and the rates below are for that net excess generation.

<b>RATE</b>	<b>Production Meter Installed</b>	<b>No Production Meter Installed</b>
Metering Charge per Month		
Single Phase	\$3.15	\$1.68
Three Phase	\$6.40	\$2.58
Payment per kWh for Energy Delivered to Company in Excess of Energy Used	<u>Oct-May</u>	<u>Jun-Sep</u>
With Retail Non-Demand Metered Service	\$0.11855	\$0.12472
With Retail Demand Metered Service	\$0.06729	\$0.06981

**TERMS AND CONDITIONS OF SERVICE**

1. Energy used by customer in excess of energy delivered by the QF at the same site during the same billing period shall be billed in accordance with the appropriate non-time of day retail electric rate.
2. 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.
3. 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.
4. The voltage and phase of customer's generator must be consistent with existing service and approved by the Company.
5. The customer must comply with the MN Technical Requirements.

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

**MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2**

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**SALE TO COMPANY AFTER CUSTOMER SELF-USE  
RATE CODE A51, A52 (Continued)**

Section No. 9  
1st Revised Sheet No. 3.1

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**TERMS AND CONDITIONS OF SERVICE**

1. Electric service provided by Company to customer at the same site shall be billed in accordance with the retail rate applicable to the customer.
2. 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 customer. The net interconnection charge is the responsibility of the customer.
3. The voltage and phase of customer's generator must be consistent with existing service and approved by the Company.
4. The customer must comply with the MN Technical Requirements.
5. Individual System Capacity Limits apply.

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**TERMS AND CONDITIONS OF SERVICE**

1. Electric service provided by Company to customer in excess of energy delivered by the QF at the same site during the same billing period shall be billed in accordance with the retail rate applicable to customer.
2. 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.
3. 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 customer. The net interconnection charge is the responsibility of the customer.
4. The voltage and phase of customer's generator must be consistent with existing service and approved by the Company.
5. The customer must comply with the MN Technical Requirements.
6. Individual System Capacity Limits apply.

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**MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2**

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**ANNUAL NET METERING (KWH BANKING OPTION)  
RATE CODE A55, A56 (Continued)**

Section No. 9  
1st Revised Sheet No. 4.3

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**TERMS AND CONDITIONS OF SERVICE**

1. Electric service provided by Company to customer in excess of energy delivered by the QF or NMF including the depletion of any banked excess generation at the same site shall be billed in accordance with the retail rate applicable to customer.
2. 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.
3. 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 customer. The net interconnection charge is the responsibility of the customer.
4. The voltage and phase of customer's generator must be consistent with existing service and approved by the Company.
5. The customer must comply with the MN Technical Requirements. ND
6. Individual System Capacity Limits apply.
7. The Company will credit customers electing to "bank" annually via an on-bill credit for that customer's account posted on the bill following the billing cycle that includes December 31 and reflects payment for the bank balance for kWh credits accumulated up through the closing date on that bill which includes December 31. The effect of netting customer generation against customer use occurs on a roughly annual basis, but for administrative purposes may be a few days off from a calendar year. The bank balance increases or decreases monthly, but at end of any given monthly billing cycle never goes below zero.
8. To choose Annual Net Metering, the customer should select Paragraphs 5.a. in the Uniform Statewide Contract for Cogeneration and Small Power Production, in addition to either Paragraph 5.b. or 5.c of that contract.

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**RULES AND REGULATIONS APPLICABLE TO  
COGENERATION AND SMALL POWER PRODUCTION  
FACILITIES**

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Section No. 9  
3rd Revised Sheet No. 5

**APPLICATION OF THE MN DIP**

To the extent that an application or interconnection is subject to the MN DIP, and there is any inconsistency between the provisions of this Section 9 and the MN DIP as set forth in the Section 10 tariff or the MN Technical Requirements, the provisions of the MN DIP and MN Technical Requirements shall control over the provisions of this Section 9 tariff.

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**FACILITY LOCATION AND COMPLIANCE**

Customer agrees to locate the qualifying facility (QF) or Net Metered Facility (NMF) 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 or NMF 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 or NMF does not preclude the necessity of customer obtaining all required permits, building and zoning variations, and applicable inspections.

**TECHNICAL INTERCONNECTION REQUIREMENTS**

The MN Technical Requirements apply. Before a customer signs the Uniform Statewide Contract, the Company must distribute to that customer a copy of, or electronic link to, the then-current MN Technical Requirements.

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**CONNECTION AND SAFETY DISCONNECT SWITCH**

Company agrees to permit customer to connect the proposed QF or NMF 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. QFs or NMFs using line commutated synchronous inverters shall have the inverters connected on the load side (QF or NMF side) of the safety disconnect switch.

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(Continued on Sheet No. 9-5.1)

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

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Section No. 9  
2nd Revised Sheet No. 6

**MAIN SERVICE METERING SCENARIOS**

1. No Sale to Company

If 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 be configured to allow measurement only of energy flow into the customer's premises. Customer will provide all meter socket replacement and rewiring required to accommodate this meter that measures energy flow in one direction only. Where the customer chooses no sale to the Company, the customer will need to sign either the Section 10 Interconnection Agreement where the MN DIP does not apply, or the MN DIA where the MN DIP does apply, but does not need to sign the Section 9 Uniform Statewide Contract. Even if the no sale option is selected, for systems sized 40 kW AC or larger, the customer will still need a production meter for a new interconnection of a generating system, and the metering charge will correspond to the metering charge for comparably sized systems under the A50-A54 rate codes.

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2. Sale of All or Part of Customer Produced Energy

If customer intends to sell energy to Company under this Section 9 tariff, a meter will be installed by the Company that will record energy delivered. Production meters are not required for systems rated under 40 kW. Customer will provide all meter socket replacement and rewiring required to install any applicable meter.

**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 or NMF 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 or NMF control circuitry to enable Company to determine if the QF or NMF 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 or NMF from Company distribution system and shall only reconnect the QF or NMF through a customer provided, Company approved, interconnect device that will prevent backfeed.

**ADDITIONAL SAFETY DEVICES**

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

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(Continued on Sheet No. 9-7)

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

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Section No. 9  
2nd Revised 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 or NMF in parallel with Company's distribution system. The QF or NMF shall be equipped consistent with the MN Technical Requirements.

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**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 or NMF. The insurance requirements are as set forth in the Section 10 tariff.

**SPECIAL LOSS FACTOR ADJUSTMENT**

If the QF or NMF 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.

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(Continued on Sheet No. 9-8)

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

Section No. 9  
2nd Revised Sheet No. 8

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**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 QF or NMF will require QF or NMF to pay a net interconnection charge in advance.

**METERING REQUIREMENTS**

The QF or NMF shall make provision for on-site metering. On-site use of QF or NMF output shall be unmetered for purposes of compensation. QF or NMF shall cooperate with and allow Company to install and have access to on-site monitoring equipment for purposes of gathering QF or NMF performance data. A Company-owned bi-directional meter is required to be installed at each service location associated with each new Customer generation source subject to this tariff. A production meter may be required, in addition to the bi-directional meter, in certain circumstances. A production meter is not required for systems rated under 40 kW AC, unless that system is subject to an incentive or program rule requiring a production meter (e.g., Solar\*Rewards). A production meter is required for all systems rated 40 kW AC or above. Customer will provide all meter housing and socket replacement and rewiring to install the metering.

**BI-DIRECTIONAL METER**

A bi-directional meter located at the main service will record energy delivered to the customer from the Company, and energy received by the Company from customer. Installation of a new bi-directional meter may not be required if the configuration of a customer's facilities allows and a previously installed bi-directional meter provides the information necessary for billing purposes.

**PRODUCTION METER**

The second (Production) meter will record energy generated by the QF or NMF 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 QF or NMF system when a production meter is required. At customer's request, additional production meters, beyond Company-required production meters, may be installed if approved by the Company at the Customer's expense.

**METERING CHARGES**

Customer shall be charged a metering charge per month (see Rate Codes A50-A56). Payment for any additional facilities required by Company to accommodate the QF or NMF system will be consistent with the MN DIP, and where applicable, the MN DIA.

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(Continued on Sheet No. 9-8.1)

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

Section No. 9  
1st Revised Sheet No. 8.2

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**OWNERSHIP OF RENEWABLE ENERGY CREDITS**

Generators own all renewable energy credits unless:

- A. other ownership is expressly provided for by a contract between a generator and a utility;
- B. state law specifies a different outcome; or
- C. specific Commission orders or rules specify a different outcome.

**DISTRIBUTED GENERATION PPAs WHERE RATE CODES A51-A56 DO NOT APPLY**

If a qualifying facility (QF) has capacity of at least 40 kW AC but less than 1,000 kW AC and does not comply with the Individual System Capacity Limits, then the rate codes A51-A56 do not apply. These rate codes also do not apply, for example, where the QF or other distributed generation (DG) has a capacity of 1,000 kW AC or more. In circumstances where Rate Codes A51-A56 do not apply, then the Section 9 Uniform Statewide Contract also does not apply. Where the Section 9 Uniform Statewide Contract does not apply, the DG customer may apply for interconnection under the Company's Section 10 tariff. Whether the Company pays for energy or capacity delivered to it would depend on whether there is a power purchase agreement (PPA) and further depend on the rates, terms and conditions in the PPA. Nothing in this tariff shall be construed to obligate Company to enter into a PPA. The obligation to enter into such a PPA with a DG customer takes into consideration many factors, including whether there is a Legally Enforceable Obligation (LEO) of the Company to enter into such a PPA and the proposed rates, terms and conditions. The Company may also voluntarily enter into a PPA with a DG customer. Should a DG customer and Company enter into a PPA where the Section 9 Uniform Statewide Contract does not apply (and no other Section 9 tariffed contract applies, such as a Solar\*Rewards contract), then the following procedures will apply:

1. If the DG is over 10 MW AC nameplate capacity, then the PPA along with the associated Interconnection Agreement will need to be approved by the Commission.
2. If the DG has a nameplate capacity of 40 kW up to and including 10 MW AC, and is for a term of more than 5 years, the Company shall file the PPA with the Commission and the Company shall be permitted to proceed with the PPA beginning 32 days after filing if no objection or intent to object is filed within 30 days of filing. If there is an objection or intent to object filed in this 30-day time frame, then the Commission will need to issue an order approving the PPA before the PPA is approved.
3. If the DG has a nameplate capacity of 40 kW up to and including 10 MW AC, and is for a term of 5 years or less, the Company may proceed with the PPA, but the Commission can examine the prudence of rates in the PPA during any request for rate recovery.
4. Notwithstanding the above, if the Commission has otherwise directed that a Commission order is needed for the PPA to be approved then that Commission directive shall apply.

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Application ID: \_\_\_\_\_

**SOLAR\*REWARDS**  
**CUSTOMER CONTRACT**

**Customer-Sited Photovoltaic (PV) Systems Greater than 0.5 kW and No More than 40 kW DC Nameplate Capacity**

This Contract is made and entered into by and between Northern States Power Company, a Minnesota corporation, having a mailing address of 414 Nicollet Mall, Minneapolis, Minnesota 55401 ("Company"), and \_\_\_\_\_ (whether one or more, "Customer"), whose mailing address for billing and notice purposes is: \_\_\_\_\_, 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 no more than 40 kilowatts direct current ("DC") per premise, on property located at the Service Address. The total aggregate nameplate capacity per premise of all solar energy systems eligible for any Solar\*Rewards incentive shall be no more than 40 kilowatts direct current. This limitation does not restrict the customer's ownership of additional solar capacity on the premise as long as the additional solar capacity also meets the requirements of the Section 9 Tariff.
- 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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**SOLAR\*REWARDS CUSTOMER CONTRACT**  
**(CLOSED TO NEW APPLICANTS AS OF JUNE 17, 2019)**  
**(Continued)**

Section No. 9  
1st Revised Sheet No. 34

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**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 \_\_\_.
- 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, 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.

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(Continued on Sheet No. 9-35)

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**SOLAR\*REWARDS CUSTOMER CONTRACT**  
**(CLOSED TO NEW APPLICANTS AS OF JUNE 17, 2019)**  
**(Continued)**

Section No. 9  
1st Revised Sheet No. 35

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**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 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(l) 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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Docket No. E002/M-18-714 Order Date: \_\_\_\_\_

**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 no more than 40 kilowatts.
- g. Customer represents that the PV System shall be sized, when combined with other distributed generation resources and subscriptions provided under the Solar\*Rewards Community program associated with 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](http://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 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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<b>SOLAR*REWARDS CUSTOMER CONTRACT                  (CLOSED TO NEW APPLICANTS AS OF JUNE 17, 2019)                  (Continued)</b>	Section No. 2nd Revised Sheet No.	9 37
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**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. If this is the only PV system at the Service Address, then 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. Each PV system at the Service Address needs its own 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 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. On-site 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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**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 single-line 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.

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(Continued on Sheet No. 9-39)

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

**Interconnection to Company Distribution System. (Continued)**

- 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.
- i. [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.
- l. 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)



**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)

“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.
- o. Customer shall effectively ground the PV System installation and to provide and install adequate surge arrester protection to prevent lightning damage to any Company distribution system equipment.

(Continued on Sheet No. 9-41)

**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.
- w. Customers who are exempt from the Solar Energy Standard (SES) under Minn. Stat. §216B.1691, subd. 2(f)d, shall not participate in the Solar\*Rewards program.

(Continued on Sheet No. 9-42)

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Date Filed: \_\_\_\_\_ By: Christopher B. Clark Effective Date: \_\_\_\_\_  
President, Northern States Power Company, a Minnesota corporation  
Docket No. E002/M-18-714 Order Date: \_\_\_\_\_

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**SOLAR\*REWARDS CUSTOMER CONTRACT**  
**(CLOSED TO NEW APPLICANTS AS OF JUNE 17, 2019)**  
**(Continued)**

Section No. 9  
1st Revised Sheet No. 42

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**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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**SOLAR\*REWARDS CUSTOMER CONTRACT**  
**(CLOSED TO NEW APPLICANTS AS OF JUNE 17, 2019)**  
**(Continued)**

Section No. 9  
1st Revised Sheet No. 43

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**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](http://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.
- b. 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.

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(Continued on Sheet No. 9-44)

Date Filed:

By: Christopher B. Clark

Effective Date:

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**SOLAR\*REWARDS CUSTOMER CONTRACT**  
**(CLOSED TO NEW APPLICANTS AS OF JUNE 17, 2019)**  
**(Continued)**

Section No. 9  
1st Revised Sheet No. 44

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**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 10-year payments described in Section 3(b).**

**Customer Name (printed):** \_\_\_\_\_

**Customer Signature:** \_\_\_\_\_ **Date:** \_\_\_\_\_

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(Continued on Sheet No. 9-45)

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President, Northern States Power Company, a Minnesota corporation  
Docket No. E002/M-18-714 Order Date: \_\_\_\_\_

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

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**SOLAR\*REWARDS CUSTOMER CONTRACT**  
**(CLOSED TO NEW APPLICANTS AS OF JUNE 17, 2019)**  
**(Continued)**

Section No. 9  
1st Revised Sheet No. 45

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

**Northern States Power Company, a Minnesota corporation**

**By:** \_\_\_\_\_ **Date:** \_\_\_\_\_  
as authorized agent for Northern States Power Company

**Title:** \_\_\_\_\_

**Please mail the signed Solar\*Rewards Contract to the Solar\*Rewards program manager at the address shown below. The Contract will be signed by Company and a copy of the Contract will be mailed back to you.**

**Solar\*Rewards Company 414 Nicollet Mall – 6th Floor Minneapolis, MN 55401 Fax: 800-252-4371**  
**Solar\*Rewards Program Manager:** \_\_\_\_\_

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(Continued on Sheet No. 9-46)

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**SOLAR\*REWARDS CUSTOMER CONTRACT**  
**(CLOSED TO NEW APPLICANTS AS OF JUNE 17, 2019)**  
**(Continued)**

Section No. 9  
1st Revised Sheet No. 46

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**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:

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

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Date Filed:

By: Christopher B. Clark

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President, Northern States Power Company, a Minnesota corporation

Docket No. E002/M-18-714

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

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**SOLAR\*REWARDS CUSTOMER CONTRACT**  
**(CLOSED TO NEW APPLICANTS AS OF JUNE 17, 2019)**  
**(Continued)**

Section No. 9  
1st Revised Sheet No. 47

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

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Date Filed:

By: Christopher B. Clark

Effective Date:

President, Northern States Power Company, a Minnesota corporation

Docket No. E002/M-18-714

Order Date:



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

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**SOLAR\*REWARDS CUSTOMER CONTRACT**  
**(CLOSED TO NEW APPLICANTS AS OF JUNE 17, 2019)**  
**(Continued)**

Section No. 9  
1st Revised Sheet No. 48

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

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Date Filed:

By: Christopher B. Clark

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President, Northern States Power Company, a Minnesota corporation

Docket No. E002/M-18-714

Order Date:

Application ID: \_\_\_\_\_

**SOLAR\*REWARDS**  
**CUSTOMER CONTRACT**

**Customer-Sited Photovoltaic (PV) Systems Greater than 0.5 kW and No More than 40 kW DC Nameplate Capacity**

This Contract is made and entered into by and between Northern States Power Company, a Minnesota corporation, having a mailing address of 414 Nicollet Mall, Minneapolis, Minnesota 55401 ("Company"), and \_\_\_\_\_ (whether one or more, "Customer"), whose mailing address for billing and notice purposes is: \_\_\_\_\_, 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 no more than 40 kilowatts direct current ("DC") per premise, on property located at the Service Address. The total aggregate nameplate capacity per premise of all solar energy systems eligible for any Solar\*Rewards incentive shall be no more than 40 kilowatts direct current. This limitation does not restrict the customer's ownership of additional solar capacity on the premise as long as the additional solar capacity also meets the requirements of the Section 9 Tariff.
- 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 as provided for in the Minnesota Distributed Energy Resources Interconnection Process (MN DIP) as tariffed by the Company.
- e. 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.
- f. All interconnection applications submitted under this Solar\*Rewards tariff must be submitted under the Minnesota Distributed Energy Resources Interconnection Process (MN DIP) as implemented in the Company tariffs. Consistent with this and the decision on how it wants to be compensated for net metering, the Customer at the applicable time will also need to sign the Uniform Statewide Contract (Section 9, Sheet Nos. 10-12) and/or the Minnesota Distributed Energy Resource Interconnection Agreement (MN DIA) as implemented in Company tariffs.

(Continued on Sheet No. 9-49.01)

Date Filed: \_\_\_\_\_ By: Christopher B. Clark Effective Date: \_\_\_\_\_  
President, Northern States Power Company, a Minnesota corporation  
Docket No. E002/M-18-714 Order Date: \_\_\_\_\_

D  
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**2. Purchases and Sales of Electricity.**

Customer and Company agree:

- a. Company will buy electricity generated by the PV System from Customer under the applicable Company rate schedule filed with the Commission and under the applicable rate code selected by the Customer under the Uniform Statewide Contract. The available rate codes are as follows:
  - Average Retail Rate, Rate Code A50
  - Sale to Company after Customer Self-Use, Non-TOD/TOD, Rate Codes A51/A52
  - Monthly Net Metering, Non-TOD/TOD, Rate Codes A53/A54

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.

- b. Customer will pay a monthly metering charge under the Company tariff elected by the Customer, 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.

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(Continued on Sheet No. 9-49.02)

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**SOLAR\*REWARDS CUSTOMER CONTRACT**  
**(Continued)**

Section No. 9  
Original Sheet No. 49.02

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**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(d) 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.

N  
|  
N

(Continued on Sheet No. 9-49.03)

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Date Filed:	By: Christopher B. Clark	Effective Date:
Docket No. E002/M-18-714	President, Northern States Power Company, a Minnesota corporation	Order Date:

**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 no more than 40 kilowatts.
- g. Customer represents that the PV System shall be sized, when combined with other distributed generation resources and subscriptions provided under the Solar\*Rewards Community program associated with 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](http://www.xcelenergy.com).
- i. The Customer is not a participant in the Made in Minnesota program for the PV System covered by this Contract.
- j. The Customer has not received an incentive 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. 9-49.04)

**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. Each PV System subject to any Solar\*Rewards incentive at the Service Address needs its own production meter. Customer shall be charged monthly the metering charge described in the Rate Code selected by the Customer in Section 2(c) above.
- 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 as provided for in the Uniform Statewide Contract. On-site use of energy generated by the PV System shall be unmetered for purposes of compensation, except for as provided in Section 3(b).

N  
N

(Continued on Sheet No. 9-49.05)

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**SOLAR\*REWARDS CUSTOMER CONTRACT**  
**(Continued)**

Section No. 9  
Original Sheet No. 49.05

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**Definition.**

d. For purposes of this Contract, these terms have the following meanings:

"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. (Continued)**

e. 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.

**Additional Requirements.**

- f. This Contract shall apply to new PV solar equipment only. Used equipment does not qualify for the payment described in Section 3(b).
- g. 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.
- h. Customers who are exempt from the Solar Energy Standard (SES) under Minn. Stat. §216B.1691, subd. 2(f)d, shall not participate in the Solar\*Rewards program.

(Continued on Sheet No. 9-49.06)

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Date Filed:	By: Christopher B. Clark	Effective Date:
Docket No. E002/M-18-714	President, Northern States Power Company, a Minnesota corporation	Order Date:

N  
N

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**SOLAR\*REWARDS CUSTOMER CONTRACT**  
**(Continued)**

Section No. 9  
Original Sheet No. 49.06

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**6. Limitations and Liabilities.**

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.

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N

(Continued on Sheet No. 9-49.07)



**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](http://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.
- b. 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. 9-49.08)

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**SOLAR\*REWARDS CUSTOMER CONTRACT**  
**(Continued)**

Section No. 9  
Original Sheet No. 49.08

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**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 10-year payments described in Section 3(b).**

**Customer Name (printed):** \_\_\_\_\_

**Customer Signature:** \_\_\_\_\_ **Date:** \_\_\_\_\_

(Continued on Sheet No. 9-49.09)

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Date Filed: \_\_\_\_\_ By: Christopher B. Clark Effective Date: \_\_\_\_\_  
President, Northern States Power Company, a Minnesota corporation  
Docket No. E002/M-18-714 Order Date: \_\_\_\_\_

N

N

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**SOLAR\*REWARDS CUSTOMER CONTRACT**  
**(Continued)**

Section No. 9  
Original Sheet No. 49.09

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

**Northern States Power Company, a Minnesota corporation**

By: \_\_\_\_\_ Date: \_\_\_\_\_  
as authorized agent for Northern States Power Company

Title: \_\_\_\_\_

Please mail the signed Solar\*Rewards Contract to the Solar\*Rewards program manager at the address shown below. The Contract will be signed by Company and a copy of the Contract will be mailed back to you.

Solar\*Rewards Company 414 Nicollet Mall – 6th Floor Minneapolis, MN 55401 Fax: 800-252-4371  
Solar\*Rewards Program Manager: \_\_\_\_\_

N  
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N

(Continued on Sheet No. 9-49.10)

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**SOLAR\*REWARDS CUSTOMER CONTRACT**  
**(Continued)**

Section No. 9  
Original Sheet No. 49.10

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**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:

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

N  
|  
N

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(Continued on Sheet No. 9-49.11)

Date Filed: \_\_\_\_\_ By: Christopher B. Clark Effective Date: \_\_\_\_\_  
President, Northern States Power Company, a Minnesota corporation  
Docket No. E002/M-18-714 Order Date: \_\_\_\_\_

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

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**SOLAR\*REWARDS CUSTOMER CONTRACT**  
**(Continued)**

Section No. 9  
Original Sheet No. 49.11

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

N

(Continued on Sheet No. 9-49.12)

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President, Northern States Power Company, a Minnesota corporation  
Docket No. E002/M-18-714 Order Date:

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

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**SOLAR\*REWARDS CUSTOMER CONTRACT**  
**(Continued)**

Section No. 9  
Original Sheet No. 49.12

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

N  
N

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Date Filed: By: Christopher B. Clark Effective Date:  
President, Northern States Power Company, a Minnesota corporation  
Docket No. E002/M-18-714 Order Date:

Application ID: \_\_\_\_\_

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

**CONTRACT**

**Solar Garden Photovoltaic (PV) Systems Greater than 1 kW and No More than 40 kW DC Nameplate Capacity**

This Contract is made and entered into by and between Northern States Power Company, a Minnesota corporation, having a mailing address of 414 Nicollet Mall, Minneapolis, Minnesota 55401 ("Company"), and \_\_\_\_\_ ("Community Solar Garden Operator"), whose mailing address for billing and notice purposes is: \_\_\_\_\_, 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 no more than 40 kilowatts direct current ("DC") per premise, on property located at the Service Address. The total aggregate nameplate capacity per premise of all solar energy systems eligible for any Solar\*Rewards incentive shall be no more than 40 kilowatts direct current. This limitation does not restrict the customer's ownership of additional solar capacity on the premise as long as the additional solar capacity also meets the requirements of the Section 9 Tariff.
- b. 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: \_\_\_\_\_ By: Christopher B. Clark Effective Date: \_\_\_\_\_  
President, Northern States Power Company, a Minnesota corporation  
Docket No. E002/M-18-714 Order Date: \_\_\_\_\_

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**SOLAR\*REWARDS COMMUNITY CONTRACT  
FOR THOSE RECEIVING SOLAR\*REWARDS INCENTIVE  
(CLOSED TO NEW APPLICANTS AS OF JUNE 17, 2019)  
(Continued)**

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Section No. 9  
1st Revised 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)

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Date Filed:

By: Christopher B. Clark

Effective Date:

President, Northern States Power Company, a Minnesota corporation

Docket No. E002/M-18-714

Order Date:



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**SOLAR\*REWARDS COMMUNITY CONTRACT  
FOR THOSE RECEIVING SOLAR\*REWARDS INCENTIVE  
(CLOSED TO NEW APPLICANTS AS OF JUNE 17, 2019)  
(Continued)**

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Section No. 9  
1st Revised 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)

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Date Filed: By: Christopher B. Clark Effective Date:  
President, Northern States Power Company, a Minnesota corporation  
Docket No. E002/M-18-714 Order Date:

**SOLAR\*REWARDS COMMUNITY CONTRACT  
FOR THOSE RECEIVING SOLAR\*REWARDS INCENTIVE  
(CLOSED TO NEW APPLICANTS AS OF JUNE 17, 2019)  
(Continued)**

Section No. 9  
2nd Revised 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 no more than 40 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](http://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 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.**

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

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(Continued on Sheet No. 9-54)

Date Filed:

By: Christopher B. Clark

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**SOLAR\*REWARDS COMMUNITY CONTRACT  
FOR THOSE RECEIVING SOLAR\*REWARDS INCENTIVE  
(CLOSED TO NEW APPLICANTS AS OF JUNE 17, 2019)  
(Continued)**

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Section No. 9  
1st Revised 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)

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President, Northern States Power Company, a Minnesota corporation

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**SOLAR\*REWARDS COMMUNITY CONTRACT  
FOR THOSE RECEIVING SOLAR\*REWARDS INCENTIVE  
(CLOSED TO NEW APPLICANTS AS OF JUNE 17, 2019)  
(Continued)**

Section No. 9  
1st Revised 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 of 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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By: Christopher B. Clark

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**SOLAR\*REWARDS COMMUNITY CONTRACT FOR THOSE  
RECEIVING SOLAR\*REWARDS INCENTIVE  
(CLOSED TO NEW APPLICANTS AS OF JUNE 17, 2019)  
(Continued)**

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Section No. 9  
1st Revised 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](http://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.
- b. 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)

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Date Filed: \_\_\_\_\_ By: Christopher B. Clark Effective Date: \_\_\_\_\_  
President, Northern States Power Company, a Minnesota corporation  
Docket No. E002/M-18-714 Order Date: \_\_\_\_\_

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**SOLAR\*REWARDS COMMUNITY CONTRACT  
FOR THOSE RECEIVING SOLAR\*REWARDS INCENTIVE  
(CLOSED TO NEW APPLICANTS AS OF JUNE 17, 2019)  
(Continued)**

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Section No. 9  
1st Revised 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)

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Date Filed: \_\_\_\_\_ By: Christopher B. Clark Effective Date: \_\_\_\_\_  
President, Northern States Power Company, a Minnesota corporation  
Docket No. E002/M-18-714 Order Date: \_\_\_\_\_

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

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**SOLAR\*REWARDS COMMUNITY CONTRACT  
FOR THOSE RECEIVING SOLAR\*REWARDS INCENTIVE  
(CLOSED TO NEW APPLICANTS AS OF JUNE 17, 2019)  
(Continued)**

Section No. 9  
1st Revised Sheet No. 58

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**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**

**By:** \_\_\_\_\_ **Date:** \_\_\_\_\_  
as authorized agent for Northern States Power Company

**Title:** \_\_\_\_\_

**Please mail this signed Solar\*Rewards Community Contract For Those Receiving Solar\*Rewards Incentive to the Solar\*Rewards program manager at the address shown below. The Contract will be signed by Company and a copy of the Contract will be mailed back to you.**

**Solar\*Rewards Company 414 Nicollet Mall – 6th Floor Minneapolis, MN 55401 Fax: 800-252-4371  
Solar\*Rewards Program Manager: \_\_\_\_\_**

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Date Filed: \_\_\_\_\_ By: Christopher B. Clark Effective Date: \_\_\_\_\_  
President, Northern States Power Company, a Minnesota corporation  
Docket No. E002/M-18-714 Order Date: \_\_\_\_\_

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**SOLAR\*REWARDS COMMUNITY CONTRACT  
FOR THOSE RECEIVING SOLAR\*REWARDS INCENTIVE  
(CLOSED TO NEW APPLICANTS AS OF JUNE 17, 2019)  
(Continued)**

Section No. 9  
1st Revised Sheet No. 59

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**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

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Date Filed:

By: Christopher B. Clark  
President, Northern States Power Company, a Minnesota corporation

Effective Date:

Docket No. E002/M-18-714

Order Date:



Application ID: \_\_\_\_\_

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

**CONTRACT**

**Solar Garden Photovoltaic (PV) Systems Greater than 1 kW and No More than 40 kW DC Nameplate Capacity**

This Contract is made and entered into by and between Northern States Power Company, a Minnesota corporation, having a mailing address of 414 Nicollet Mall, Minneapolis, Minnesota 55401 ("Company"), and \_\_\_\_\_ ("Community Solar Garden Operator"), whose mailing address for billing and notice purposes is: \_\_\_\_\_, 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 no more than 40 kilowatts direct current ("DC") per premise, on property located at the Service Address. The total aggregate nameplate capacity per premise of all solar energy systems eligible for any Solar\*Rewards incentive shall be no more than 40 kilowatts direct current. This limitation does not restrict the customer's ownership of additional solar capacity on the premise as long as the additional solar capacity also meets the requirements of the Section 9 Tariff.

- b. 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. 9-59.02)

Date Filed: \_\_\_\_\_ By: Christopher B. Clark Effective Date: \_\_\_\_\_  
President, Northern States Power Company, a Minnesota corporation  
Docket No. E002/M-18-714 Order Date: \_\_\_\_\_

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

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Section No. 9  
Original Sheet No. 59.02

**2. Purchases and Sales of Electricity.**

Community Solar Garden Operator 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.

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(Continued on Sheet No. 9-59.03)

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Date Filed:

By: Christopher B. Clark  
President, Northern States Power Company, a Minnesota corporation

Effective Date:

Docket No. E002/M-18-714

Order Date:

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

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Section No. 9  
Original Sheet No. 59.03

**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. 9-59.04)

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Date Filed:

By: Christopher B. Clark

Effective Date:

President, Northern States Power Company, a Minnesota corporation

Docket No. E002/M-18-714

Order Date:

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

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Section No. 9  
Original Sheet No. 59.04

**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 no more than 40 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](http://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 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. Community Solar Garden Operator 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.**

- b. Interconnection requirements are set forth in the Standard Contract for Solar\*Rewards Community applicable to applications filed on or after June 17, 2019.

(Continued on Sheet No. 9-59.05)

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Date Filed:

By: Christopher B. Clark

Effective Date:

President, Northern States Power Company, a Minnesota corporation

Docket No. E002/M-18-714

Order Date:

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

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Section No. 9  
Original Sheet No. 59.05

**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. 9-59.06)

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Date Filed: By: Christopher B. Clark Effective Date:  
President, Northern States Power Company, a Minnesota corporation  
Docket No. E002/M-18-714 Order Date:

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

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Section No. 9  
Original Sheet No. 59.06

**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. 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.
- c. 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.
- d. 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. 9-59.07)

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Date Filed: By: Christopher B. Clark Effective Date:  
President, Northern States Power Company, a Minnesota corporation  
Docket No. E002/M-18-714 Order Date:

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

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Section No. 9  
Original Sheet No. 59.07

**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](http://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.
- b. 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. 9-59.08)

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Date Filed: \_\_\_\_\_ By: Christopher B. Clark Effective Date: \_\_\_\_\_  
President, Northern States Power Company, a Minnesota corporation  
Docket No. E002/M-18-714 Order Date: \_\_\_\_\_

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

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Section No. 9  
Original Sheet No. 59.08

**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. 9-59.09)

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Date Filed: \_\_\_\_\_ By: Christopher B. Clark Effective Date: \_\_\_\_\_  
President, Northern States Power Company, a Minnesota corporation  
Docket No. E002/M-18-714 Order Date: \_\_\_\_\_



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

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Section No. 9  
Original Sheet No. 59.09

**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**

**By:** \_\_\_\_\_ **Date:** \_\_\_\_\_  
as authorized agent for Northern States Power Company

**Title:** \_\_\_\_\_

**Please mail this signed Solar\*Rewards Community Contract For Those Receiving Solar\*Rewards Incentive to the Solar\*Rewards program manager at the address shown below. The Contract will be signed by Company and a copy of the Contract will be mailed back to you.**

**Solar\*Rewards Company 414 Nicollet Mall – 6th Floor Minneapolis, MN 55401 Fax: 800-252-4371  
Solar\*Rewards Program Manager: \_\_\_\_\_**

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(Continued on Sheet No. 9-59.10)

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Date Filed: \_\_\_\_\_ By: Christopher B. Clark Effective Date: \_\_\_\_\_  
President, Northern States Power Company, a Minnesota corporation  
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**SOLAR\*REWARDS COMMUNITY CONTRACT  
FOR THOSE RECEIVING SOLAR\*REWARDS INCENTIVE  
(Continued)**

Section No. 9  
Original Sheet No. 59.10

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**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:

- 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

N

N

**ASSIGNMENT OF CONTRACT**  
**(Continued)**

Section No. 9  
1st Revised Sheet No. 61

5. Company shall have ownership of all RECs produced by the PV System during the term of the attached Contract.
6. In order for this Assignment of Contract to be valid, the following must also occur. If the MN DIA has been signed, then the tariffed Assignment of Minnesota Distributed Energy Resource Interconnection Agreement needs to also be signed by the Assignor, Assignee and Northern States Power Company. Further, if the Uniform Statewide Contract has also been signed pertaining to the PV System, then the Assignee and Northern States Power Company also need to sign a new Uniform Statewide Contract pertaining to the PV System that is the subject of the Solar\*Rewards contract. However, no additional engineering review fees or costs shall be applied to the Assignee for the signing of this Uniform Statewide Contract if the new contract is merely replacing a similar contract for the same PV System. The effective date of the newly signed Uniform Statewide Contract shall coincide with the cancellation date of the prior Uniform Statewide Contract.

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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: \_\_\_\_\_

Title: \_\_\_\_\_

Date Filed:

By: Christopher B. Clark

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**SOLAR\*REWARDS COMMUNITY PROGRAM**

Section No. 9  
6th 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.

**DEFINITIONS**

Deemed Complete - For applications that are not subject to the MN DIP, the term "Deemed Complete" shall mean the successful completion of the requirements in tariff Section 9, Sheet No. 67, step (i). For applications that are subject to the MN DIP, the term "Deemed Complete" shall mean the last date of any of the following: date-and-time stamp of receipt of a complete Interconnection Application as provided for in MN DIP section 1.5.2.; completing the application for the Solar\*Rewards Community Program; and, paying the Solar\*Rewards Community Program application fee and deposit.

Mechanical Completion - For applications that are not subject to the MN DIP, the term "Mechanical Completion" is as defined in tariff Section 9, Sheet No. 68, par. 1.i. For applications that are subject to the MN DIP, the term "Mechanical Completion" shall mean the date when all of the following have been completed:

- Installation of the DER;
- Submission to the Company of proof of insurance, as required by Company tariffs or MN DIA;
- Submission to the Company of State of Minnesota electrical inspection forms ("Blue Copy") filed with the Company showing successful completion of testing; and,
- Inspection and functional testing of DER components.

**RATE**

The Bill Credit Rate that applies is either based on:

1. The applicable retail rate
  - a. for applications that on or before December 31, 2016, have met the requirements in tariff Section 9, Sheet 67, step (i) ("Deemed Complete" or "Initial Application Completeness"); or,
  - b. for applications that otherwise qualify as provided for in an authorized amendment to the Standard Contract for Solar\*Rewards Community; or,
2. The Value of Solar (VOS) rate for applications that are Deemed Complete on or after January 1, 2017, and that do not qualify for the applicable retail rate.

(Continued on Sheet No. 9-64.1)

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**SOLAR\*REWARDS COMMUNITY PROGRAM**  
**(Continued)**

Section No. 9  
 3rd Revised Sheet No. 64.1

**APPLICABLE RETAIL RATE**

The applicable retail rate Bill Credit Rate below is applicable to those applications that were Deemed Complete on or before December 31, 2016 or otherwise qualify as provided for in an authorized amendment to the Standard Contract for Solar\*Rewards Community.

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.

Customer Class	Bill Credit Type	Bill Credit Rate per kWh (AC) for Energy Delivered to Company
Residential Service	Standard	\$0.13539
	Enhanced – Solar Gardens > 250 KW (AC)	\$0.15539
	Enhanced – Solar Gardens ≤ 250 KW (AC)	\$0.16539
Small General Service	Standard	\$0.12844
	Enhanced – Solar Gardens > 250 KW (AC)	\$0.14844
	Enhanced – Solar Gardens ≤ 250 KW (AC)	\$0.15844
General Service	Standard	\$0.10515
	Enhanced – Solar Gardens > 250 KW (AC)	\$0.12515
	Enhanced – Solar Gardens ≤ 250 KW (AC)	\$0.13515

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. 9-64.2)

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**SOLAR\*REWARDS COMMUNITY PROGRAM**  
**(Continued)**

Section No. 9  
Original Sheet No. 64.2

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**VALUE OF SOLAR (VOS) BILL CREDIT RATE**

The following definitions apply:

“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.

“Term of the Contract” means the term of the Standard Contract for Solar\*Rewards Community.

The specific VOS Bill Credit Rate to be applied will depend on several factors. Each application Deemed Complete in a given calendar year will have a VOS Bill Credit Rate table applicable to the vintage of the VOS based on the calendar year it was Deemed Complete (“VOS Vintage Year”). In the event a VOS Vintage Year Bill Credit Rate table is not approved for part or all of a given calendar year, the most recently approved VOS Vintage Year Bill Credit Rate table will apply to applications Deemed Complete in that calendar year until a new VOS Vintage Year Bill Credit Rate table becomes effective. Each VOS Vintage Year table of Bill Credit Rates will have separate rates for each of the 25 years of production from the garden. The rate for Year 1 for a given VOS Vintage Year will apply for all Bill Credits associated with production in the first calendar month associated with the Date of Commercial Operation and all subsequent calendar months in the same calendar year. The VOS Bill Credit Rate for Year 2 for a given VOS Vintage Year will apply for all calendar months in the following calendar year. In the same way, the rates for Year 3 through 25 shall apply in sequential order for each of the following calendar years. Where the Date of Commercial Operation is not January 1, the Year 25 rate shall also apply to the final calendar year up to the end of the Term of the Contract.

(Continued on Sheet No. 9-64.101)

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**SOLAR\*REWARDS COMMUNITY PROGRAM  
(Continued)**

Section No. 9  
1st Revised Sheet No. 66.1

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**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 a program application fee of \$1,200 to the Company. This application fee may be by check or wire transfer. The program application fee is meant to cover the cost to the Company of processing the program application. This is in addition to the interconnection application fee and other interconnection fees or costs.

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(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.

l. 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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**SOLAR\*REWARDS COMMUNITY PROGRAM**  
**(Continued)**

Section No. 9  
3rd Revised Sheet No. 67

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**APPLICATION TO THE PROGRAM**

(Note – the provisions for “Application to the Program” on Sheet Nos. 67 and 67.1 only apply to applications that are not subject to the MN DIP).

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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 achieve Mechanical Completion of the project within twenty-four (24) months from the later of August 6, 2015 or 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. Day-for-day extensions will also be applied to the extent the application is the subject of an Independent Engineer review (Section 9, Sheets 68.11–68.13) or to the extent it is directly delayed as the result of an Independent Engineer review for another application in the same Study Queue. The Company shall provide, upon an applicant’s good-faith request, written confirmation of the then-current Mechanical Completion deadline for an application under this section, accounting for applicable day-for-day extensions.

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(Continued on Sheet No. 9-67.1)

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**SOLAR\*REWARDS COMMUNITY PROGRAM  
(Continued)**

Section No. 9  
1st Revised Sheet No. 67.1

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**APPLICATION TO THE PROGRAM (Continued)**

(Note – the provisions for “Application to the Program” on Sheet Nos. 67 and 67.1 only apply to applications that are not subject to the MN DIP).

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The 24-month period shall be tolled day-for-day for a project application that, in the Company’s determination, has suffered a Force Majeure event prior to Mechanical Completion. For purposes of this section, Force Majeure means: any act of God, act of the public enemy, war, insurrection, riot, fire, storm or flood, explosion, breakage or accident to machinery or equipment, or any other cause beyond a Party’s control, except that a local-government moratorium to issuing a permit may extend the 24-month period for no more than an additional 6 months. Failure to seek a permit, delay in seeking a permit, or permit-processing time not subject to a moratorium is not included in this extension. An event of Force Majeure does not include an act of negligence or intentional wrongdoing.

If Mechanical Completion is not achieved within this twenty-four (24) month period (including any day-for-day extension referenced above), then the Company will return the deposit (consistent with the provisions on Sheet No. 66.1) 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. Additionally, in this situation, if applicant already has an executed Interconnection Agreement, then that Interconnection Agreement may not be used for a project as part of the Solar\*Rewards Community program, and such project shall immediately lose its queue position in the interconnection queue.

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(Continued on Sheet No. 9-67.2)

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**SOLAR\*REWARDS COMMUNITY PROGRAM**  
**(Continued)**

Section No. 9  
Original Sheet No. 67.2

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**APPLICATION TO THE PROGRAM**

(Note – the provisions for “Application to the Program” on Sheet Nos. 67.2 and 67.3 only apply to applications that are subject to the MN DIP).

Applications will have their interconnection application be processed consistent with the MN DIP as long as the application continues to comply with tariff and program requirements.

If at any time the application is no longer valid under the MN DIP process, then the application to the program shall be considered to be withdrawn and no longer valid. If the applicant still desires to proceed with a Community Solar Garden at that site, it will need to submit a new application under the then-current program rules. Examples of an application no longer being valid under the MN DIP process, include, but are not limited to, the following:

- A. Applicant makes a “Material Modification” resulting in withdrawing the application or proceeding with a new interconnection application (MN DIP section 1.6.2.1);
- B. There has been a “withdrawal of Interconnection Application” (MN DIP sections 1.8.2 or 3.4.4);
- C. The application is “deemed withdrawn” (MN DIP sections 1.5.2, 1.6.2.1, 1.8.2, or 5.1.2)
- D. A situation is “deemed a withdrawal” of an application (MN DIP section 1.6.4),
- E. An application is “withdrawn by the Interconnection Customer” (MN DIP section 3.4.1); or
- F. The application “must be withdrawn” (MN DIP section 5.14.3)

The applicant shall achieve Mechanical Completion of the project within twenty-four (24) months from the date the MN DIA has been signed by both parties. Failure of the Company to meet its timeframes under the MN DIP or MN DIA following the application being Deemed Complete will extend this twenty-four (24) month period on a day-for-day basis. The Company shall provide, upon an applicant’s good-faith request, written confirmation of the then-current Mechanical Completion deadline for an application under this section, accounting for applicable day-for-day extensions.

The twenty-four (24) month period shall be tolled day-for-day for a project application that, in the Company’s determination, has suffered a Force Majeure event prior to Mechanical Completion. For purposes of this section, Force Majeure means: any act of God, act of the public enemy, war, insurrection, riot, fire, storm or flood, explosion, breakage or accident to machinery or equipment, or any other cause beyond a Party’s control, except that a local-government moratorium to issuing a permit may extend the twenty-four (24) month period for no more than an additional 6 months. Failure to seek a permit, delay in seeking a permit, or permit-processing time not subject to a moratorium is not included in this extension. An event of Force Majeure does not include an act of negligence or intentional wrongdoing.

(Continued on Sheet No. 9-67.3)

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**SOLAR\*REWARDS COMMUNITY PROGRAM  
(Continued)**

Section No. 9  
Original Sheet No. 67.3

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**APPLICATION TO THE PROGRAM (Continued)**

(Note – the provisions for “Application to the Program” on Sheet Nos. 67.2 and 67.3 only apply to applications that are subject to the MN DIP).

If Mechanical Completion is not achieved within the above 24-month period time period (including allowed day-for-day extensions), and if “Substantial Progress” as defined below is not achieved within the above 24-month period time period (including allowed day-for-day extensions), then the Company will return the program deposit consistent with the provisions on Sheet No. 66.1, and the applicant, if it still intends to proceed with the project, will need to reapply and submit a new program application, including applicable application fee and deposit. Additionally, in this situation, if applicant already has an executed Interconnection Agreement, then that Interconnection Agreement may not be used for a project as part of the Solar\*Rewards Community program.

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(Continued on Sheet No. 9-68)

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**ADDITIONAL TERMS AND CONDITIONS – FOR APPLICATIONS NOT SUBJECT TO THE MN DIP**

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1. Definitions. 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, 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. “Mechanical Completion” means completion by the Applicant of each of the nine items the Applicant’s personnel is required to complete in Step 8 of Section 10 (at Sheet No. 98).

j. “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.

k. “Study Queue Position” means the applicant’s place in the Study Queue.

(Continued on Sheet No. 9-68.1)

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**SOLAR\*REWARDS COMMUNITY PROGRAM**  
**(Continued)**

Section No. 9  
1st Revised Sheet No. 68.1

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**ADDITIONAL TERMS AND CONDITIONS – FOR APPLICATIONS NOT SUBJECT TO THE MN DIP**  
**(Continued)**

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2. Scale Down. 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.

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(Continued on Sheet No. 9-68.2)

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**SOLAR\*REWARDS COMMUNITY PROGRAM**  
**(Continued)**

Section No. 9  
1st Revised Sheet No. 68.2

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**ADDITIONAL TERMS AND CONDITIONS – FOR APPLICATIONS NOT SUBJECT TO THE MN DIP**  
**(Continued)**

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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.

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(Continued on Sheet No. 9-68.3)

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**SOLAR\*REWARDS COMMUNITY PROGRAM**  
**(Continued)**

Section No. 9  
1st Revised Sheet No. 68.3

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**ADDITIONAL TERMS AND CONDITIONS – FOR APPLICATIONS NOT SUBJECT TO THE MN DIP**  
**(Continued)**

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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.

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(Continued on Sheet No. 9-68.4)

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**SOLAR\*REWARDS COMMUNITY PROGRAM  
(Continued)**

Section No. 9  
2nd Revised Sheet No. 68.4

**ADDITIONAL TERMS AND CONDITIONS – FOR APPLICATIONS NOT SUBJECT TO THE MN DIP  
(Continued)**

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N

5. Interconnection Agreement Time Line Review (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 filing 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 10<sup>th</sup> 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 for which an application was filed on or before September 6, 2016 (i.e., applicant has entered enough information into the CSG Application System for a Solar\*Rewards Community number to be assigned).

aa. Material Upgrades that will not be performed are limited to the following:

- New substation transformer
- Upgrade substation transformer<sup>1</sup>
- Install new feeder bay
- Install new overhead or underground feeder<sup>2</sup>
- Changes that require a substation outage that materially affect service to customers or create an unreasonable operational risk

<sup>1</sup> 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.

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

(Continued on Sheet No. 9-68.5)



**ADDITIONAL TERMS AND CONDITIONS – FOR APPLICATIONS NOT SUBJECT TO THE MN DIP**  
**(Continued)**

N  
N

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.

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(Continued on Sheet No. 9-68.6)

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**SOLAR\*REWARDS COMMUNITY PROGRAM**  
**(Continued)**

Section No. 9  
1st Revised Sheet No. 68.6

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**ADDITIONAL TERMS AND CONDITIONS – FOR APPLICATIONS NOT SUBJECT TO THE MN DIP**  
**(Continued)**

N  
N

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  
1st Revised Sheet No. 68.7

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**ADDITIONAL TERMS AND CONDITIONS – FOR APPLICATIONS NOT SUBJECT TO THE MN DIP**  
**(Continued)**

N  
N

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.

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(Continued on Sheet No. 9-68.8)

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**SOLAR\*REWARDS COMMUNITY PROGRAM  
(Continued)**

Section No. 9  
1st Revised Sheet No. 68.8

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**ADDITIONAL TERMS AND CONDITIONS – FOR APPLICATIONS NOT SUBJECT TO THE MN DIP  
(Continued)**

N  
N

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.

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(Continued on Sheet No. 68.9)

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**SOLAR\*REWARDS COMMUNITY PROGRAM  
(Continued)**

Section No. 9  
1st Revised Sheet No. 68.9

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**ADDITIONAL TERMS AND CONDITIONS – FOR APPLICATIONS NOT SUBJECT TO THE MN DIP  
(Continued)**

N  
N

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  
1st Revised Sheet No. 68.10

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**ADDITIONAL TERMS AND CONDITIONS – FOR APPLICATIONS NOT SUBJECT TO THE MN DIP**  
**(Continued)**

N  
N

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 financier 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 affirming 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.

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(Continued on Sheet No. 9-68.11)

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**SOLAR\*REWARDS COMMUNITY PROGRAM**  
**(Continued)**

Section No. 9  
2nd Revised Sheet No. 68.11

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**ADDITIONAL TERMS AND CONDITIONS – FOR APPLICATIONS NOT SUBJECT TO THE MN DIP**  
**(Continued)**

N  
N

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.

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.

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(Continued on Sheet No. 9-68.12)

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**SOLAR\*REWARDS COMMUNITY PROGRAM**  
**(Continued)**

Section No. 9  
2nd Revised Sheet No. 68.12

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**ADDITIONAL TERMS AND CONDITIONS – FOR APPLICATIONS NOT SUBJECT TO THE MN DIP**  
**(Continued)**

N  
N

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

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 and an independent engineer selected (i.e., the contract between the applicant, Company and independent engineer has been signed), the Company shall file a notice in Docket No. E-002/M-13-867 that includes (1) the filing and date, (2) the developer, (3) the engineer assigned, and (4) a brief summary of the disputed issues.

g. 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 should address only those issues necessary to resolve the dispute between the parties. The independent engineer may request additional information from parties necessary to resolve the dispute before 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.

h. 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. As part of this program, the Company shall work with the Department and developers to develop a standardized format for independent engineer reports, including the independent engineer's credentials and licensure, and once that is developed the most current version of the standardized format should be used as the format for independent engineer reports. The independent engineer will provide a copy of the independent engineer report with its written determination via email to both the applicant and the Company. Once an independent engineer report is issued, the Company shall file it with the Commission within ten business days.

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(Continued on Sheet No. 9-68.13)

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**SOLAR\*REWARDS COMMUNITY PROGRAM**  
**(Continued)**

Section No. 9  
2nd Revised Sheet No. 68.13

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**ADDITIONAL TERMS AND CONDITIONS – FOR APPLICATIONS NOT SUBJECT TO THE MN DIP**  
**(Continued)**

N  
N

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

i. 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 10 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. If an appeal is filed, notice shall be given to those on the E-002/M-13-867 service list, and the Commission will open a new docket. When a party appeals an independent engineer's report, each party must identify the documents submitted to the independent engineer in the record necessary for the Commission's record. 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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(Continued on Sheet No. 9-68.14)

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**SOLAR\*REWARDS COMMUNITY PROGRAM**  
**(Continued)**

Section No. 9  
1st Revised Sheet No. 68.14

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**ADDITIONAL TERMS AND CONDITIONS – FOR APPLICATIONS NOT SUBJECT TO THE MN DIP**  
**(Continued)**

N  
N

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.

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(Continued on Sheet No. 9-68.15)

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By: Christopher B. Clark

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**SOLAR\*REWARDS COMMUNITY PROGRAM**  
**(Continued)**

Section No. 9  
1st Revised Sheet No. 68.15

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**ADDITIONAL TERMS AND CONDITIONS – FOR APPLICATIONS NOT SUBJECT TO THE MN DIP**  
**(Continued)**

N  
N

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.

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(Continued on Sheet No. 9-68.16)

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**SOLAR\*REWARDS COMMUNITY PROGRAM**  
**(Continued)**

Section No. 9  
2nd Revised Sheet No. 68.16

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**ADDITIONAL TERMS AND CONDITIONS – FOR APPLICATIONS NOT SUBJECT TO THE MN DIP**  
**(Continued)**

N  
N

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.

15. Cancellation for failure to Timely Become Expedited Ready

An applicant must fulfill all of the requirements to become Expedited Ready by the later of the following:

1. 60 days from Initial Application Completeness (Section 9, Sheet 67, step (i), being "Deemed Complete").
2. 60 days from July 21, 2016.
3. When applicant has appealed to the Department a Company Co-Location Notice, 60 days from the later of the Department ruling on the issue, or if a party appeals the Department ruling, 60 days from the Commission order addressing that Co-Location Notice.

Any applicant failing to become Expedited Ready within this timeframe will be provided written notice, then canceled automatically without further notice unless cured within 10 business days of notice.

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**SOLAR\*REWARDS COMMUNITY PROGRAM**  
**(Continued)**

Section No. 9  
Original Sheet No. 68.17

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**ADDITIONAL TERMS AND CONDITIONS – FOR APPLICATIONS THAT ARE SUBJECT TO THE MN DIP**

N

1. Definitions. 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, 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. [Intentionally Omitted].

f. “Initial Application Completeness” means shall mean Deemed Complete as defined on Sheet 64 above.

g. [Intentionally Omitted].

h. [Intentionally Omitted].

i. “Mechanical Completion” is defined on Sheet 64 above.

j. [Intentionally Omitted].

k. [Intentionally Omitted].

N

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(Continued on Sheet No. 9-68.18)

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**SOLAR\*REWARDS COMMUNITY PROGRAM**  
**(Continued)**

Section No. 9  
Original Sheet No. 68.18

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**ADDITIONAL TERMS AND CONDITIONS – FOR APPLICATIONS THAT ARE SUBJECT TO THE MN DIP**  
**(Continued)**

2. Scale Down. 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 needs to comply with the MN DIP.

3. [Intentionally Omitted].

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(Continued on Sheet No. 9-68.19)

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**SOLAR\*REWARDS COMMUNITY PROGRAM**  
**(Continued)**

Section No. 9  
Original Sheet No. 68.19

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**ADDITIONAL TERMS AND CONDITIONS – FOR APPLICATIONS THAT ARE SUBJECT TO THE MN DIP**  
**(Continued)**

4. Appeals relating to Co-Location Determination

a. [Intentionally Omitted].

b. If the Company provides any Co-Location Determination Notice(s), the applicant has the later of 10 business days from each such subsequent notice 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.) 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 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. E002/M-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.

5. [Intentionally Omitted].

6. [Intentionally Omitted].

7. [Intentionally Omitted].

8. [Intentionally Omitted].

9. [Intentionally Omitted].

10. [Intentionally Omitted].

11. [Intentionally Omitted].

(Continued on Sheet No. 9-68.20)

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N

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**SOLAR\*REWARDS COMMUNITY PROGRAM**  
**(Continued)**

Section No. 9  
Original Sheet No. 68.20

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**ADDITIONAL TERMS AND CONDITIONS – FOR APPLICATIONS THAT ARE SUBJECT TO THE MN DIP**  
**(Continued)**

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.

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. 9-68.21)

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N



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**SOLAR\*REWARDS COMMUNITY PROGRAM**  
**(Continued)**

Section No. 9  
Original Sheet No. 68.21

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**ADDITIONAL TERMS AND CONDITIONS – FOR APPLICATIONS THAT ARE SUBJECT TO THE MN DIP**  
**(Continued)**

13. [Intentionally Omitted].

14. Cancellation for Non-payment or Failure to Timely Submit Interconnection Application.

The following steps must be taken within 30 calendar days of an SRC application number being assigned for the application to continue as an active project:

1. Program application Fee of \$1,200.
2. Deposit in the amount of \$100/kW.
3. Submission of the Interconnection Application under MN DIP Section 1.5, including payment of the interconnection processing fee or deposit specified in the Interconnection Application.

If there is any untimely action on any of these steps, then the entire application will be cancelled automatically without further notice.

15. [Intentionally Omitted].

N

N

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

Section No. 9  
2nd Revised Sheet No. 69.1

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The VOS Bill Credit Rate is applicable to those applications that on or after January 1, 2017, meet the requirements to be Deemed Complete as defined on Sheet No. 64, and that do not qualify for the Standard Bill Credit or Enhanced Bill Credit.

N  
N

The specific VOS Bill Credit Rate to be applied will depend on several factors. Each application Deemed Complete in a given calendar year will have a VOS Bill Credit Rate table applicable to the vintage of the VOS based on the calendar year it was Deemed Complete ("VOS Vintage Year"). In the event a VOS Vintage Year Bill Credit Rate table is not approved for part or all of a given calendar year, the most recently approved VOS Vintage Year Bill Credit Rate table will apply to applications Deemed Complete in that calendar year until a new VOS Vintage Year Bill Credit Rate table becomes effective. Each VOS Vintage Year table of Bill Credit Rates will have separate rates for each of the 25 years of production from the garden. The rate for Year 1 for a given VOS Vintage Year will apply for all Bill Credits associated with production in the first calendar month associated with the Date of Commercial Operation and all subsequent calendar months in the same calendar year. The VOS Bill Credit Rate for Year 2 for a given VOS Vintage Year will apply for all calendar months in the following calendar year. In the same way, the rates for Year 3 through 25 shall apply in sequential order for each of the following calendar years. Where the Date of Commercial Operation is not January 1, the Year 25 rate shall also apply to the final calendar year up to the end of the Term of the Contract.

(Continued on Sheet No. 9-70)

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

Section No. 9  
2nd Revised Sheet No. 71

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- f. The Community Solar Garden must comply with the Service Territory Requirement;
- 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.

“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 applicable Interconnection Agreement in Section 10 of the Company’s rate book.

N

“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.

“MN DIA” shall mean the Minnesota Distributed Energy Resource Interconnection Agreement. See, Docket No. E999/CI-16-521.

N

“MN DIP” shall mean the Minnesota Distributed Energy Resource Interconnection Process. See, Docket No. E999/CI-16-521. The MN DIA shall be considered to be part of the MN DIP.

N

“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.

(Continued on Sheet No. 9-72)

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

Section No. 9  
2nd Revised Sheet No. 75

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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. Title, Risk of Loss, and Warranty of Title. 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. Interconnection Requirements. The Community Solar Garden Operator must sign the applicable 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. Where the tariffed Interconnection Agreement is used in conjunction with this tariffed Contract, the term of the Interconnection Agreement shall 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 for applications that are not subject to the MN DIP. The ADDITIONAL TERMS AND CONDITIONS set forth in tariff Section 9, Sheet Nos. 68.17 through 68.21, fully apply if the application that is the subject of this Agreement is subject to the MN DIP.

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(Continued on Sheet No. 9-76)

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

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Section No. 9  
3rd Revised Sheet No. 76

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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. Code Compliance. 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. [Intentionally Omitted]

E. The ADDITIONAL TERMS AND CONDITIONS set forth in tariff Section 9, Sheet Nos. 68 through 68.16, fully apply if the application that is the subject of this Agreement is not subject to the MN DIP. The ADDITIONAL TERMS AND CONDITIONS set forth in tariff Section 9, Sheet Nos. 68.17 through 68.21, fully apply if the application that is the subject of this Agreement is subject to the MN DIP.

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(Continued on Sheet No. 9-77)

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

Section No. 9  
1st Revised Sheet No. 77

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6. Community Solar Garden Requirements. (Continued)

F. Annual Report. 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. Audits. 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. [Intentionally Omitted]

TD

I. [Intentionally Omitted]

TD

J. Participation Fee. 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. 87

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15.A. Miscellaneous. The provisions of this par. 15.A. only apply to those applications that are not subject to the MN DIP. 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

15.B. Miscellaneous. The provisions of this par. 15.B. only apply to those applications that are subject to the MN DIP. The following provisions in the MN DIA 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 MN DIA uses the term "Interconnection Customer", this shall mean the Community Solar Garden Operator for purposes of the present Contract, and where it uses the term "Area EPS Operator" it shall mean the Company. Where the MN DIA uses the term "Agreement", this shall mean this Contract for purposes of the present Contract. References to MN DIA sections below also includes all associated sub-sections

- A. Force Majeure – MN DIA Section 7.6
- B. Notices – MN DIA Section 13.1
- C. Assignment – MN DIA Section 7.1
- D. Non-Waiver – MN DIA Section 12.4
- E. Governing Law – MN DIA Section 12.1
- F. Amendment or Modification – MN DIA Section 12.2
- G. Entire Agreement – MN DIA Section 12.5
- H. Confidential Information – MN DIA Section 9
- I. Non-Warranty – MN DIA Section 7.3
- J. No Partnership – MN DIA Section 12.7
- K. Severability – MN DIA Section 12.8
- L. Subcontractors – MN DIA Section 12.11
- M. Inclusion of Tariffs – MN DIA Section 12.12

(Continued on Sheet No. 9-88)

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President, Northern States Power Company, a Minnesota corporation  
Docket No. E002/M-18-714 \_\_\_\_\_ Order Date: \_\_\_\_\_

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

Section No. 9  
2nd Revised Sheet No. 88

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16. Term. 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.

**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**

By: \_\_\_\_\_

By: \_\_\_\_\_

Name: \_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

Date: \_\_\_\_\_

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(Continued on Sheet No. 9-89)

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By: Christopher B. Clark

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

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**DISTRIBUTED RESOURCES  
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 4th Revised Sheet No. TOC-1

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**DISTRIBUTED GENERATION STANDARD  
INTERCONNECTION AND POWER PURCHASE TARIFF**

Section No. 10  
2nd Revised Sheet No. 73

**AVAILABILITY**

Available to retail electric customers at distribution voltages and who operate a qualifying distributed generating (DG) facility, as defined below, with nameplate rating of 10,000 kW or less, which is operated in parallel with Company's distribution system. Such DG facilities may be up to 35,000 volts at three-phase. Single-phase DG facilities, generally, must not exceed a nameplate rating of 25 kW. Single phase facilities larger than 25 kW may be permitted if the capacity of the DG facility does not exceed the customer's single phase service capacity. Company will evaluate and approve all DG facility interconnection plans on case-by-case basis.

**QUALIFICATION**

1. Qualifying DG facilities may include but are not limited to, fuel cell, wind, solar, micro turbine generators and other utility industry accepted DG technologies, subject to Company's approval.
2. Qualifying DG facilities may be those which do not qualify as "Qualifying Facilities" (QFs) under the Public Utility Regulatory Policy Act of 1978 (PURPA) or those which are QFs but where the customer elects not to exercise its rights to the pricing provided for under PURPA.
3. Qualifying DG facilities must be a permanently installed or similarly dedicated mobile generator serving the customer receiving retail electric service from the Company at the same site.

**APPLICATION**

Customer seeking to interconnect and to operate a DG facility in parallel with the Company's system must complete and submit to Company a signed Generation Interconnection Application Form ("Interconnection Application") along with the applicable Interconnection Application Fee. Company will initiate a review of the DG project upon receipt of complete information needed for Interconnection Application. This tariff contains two different sets of interconnection processes and interconnection agreement documents.

The first set was initially developed by Commission order in Docket No. E999/CI-01-1023 and applies to all interconnection applications submitted prior to June 17, 2019 that have been deemed complete no later than August 16, 2019. This first set consists of "*The State of Minnesota Interconnection Process for Distributed Generation Systems*" (at Sheet Nos. 10-83 through 10-134.2, which also includes the corresponding Interconnection Agreement), and the "*State of Minnesota Distributed Generation Interconnection Requirements*" (at Sheet Nos. 10-135 through 10-159.6).

The second set was initially developed by Commission order in Docket No. E999/CI-16-521 and applies to all interconnection applications submitted on or after June 17, 2019, as well as those submitted prior to that date that have not been deemed complete by August 16, 2019, as well as other applications that the parties mutually agree should be subject to this second set. This second set consists of the "*State of Minnesota Distributed Energy Resources Interconnection Process (MN DIP)*" (at Sheet Nos. 10-163 through 10-249), that also incorporates the "*Minnesota Distributed Energy Resource Interconnection Agreement (MN DIA)*" (at Sheet Nos. 10-250 through 10-284). The "*Minnesota Distributed Energy Resource Technical Interconnection and Interoperability Requirements (MN Technical Requirements)*" are referenced in the MN DIP and MN DIA but are not tariffed.

(Continued on Sheet No. 10-74)

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**DISTRIBUTED GENERATION STANDARD  
INTERCONNECTION AND POWER PURCHASE TARIFF (Continued)**

Section No. 10  
5th Revised Sheet No. 74

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**STUDIES**

Interconnection study or studies are required and shall be conducted by Company as part of the terms and conditions of service under this tariff. Any other studies and services provided pursuant to agreement between the customer and Company, may be subject to Commission review. All review and study fees are non-refundable, whether or not the customer decides to pursue the project.

**CONTRACTS**

Customers must execute an Interconnection Agreement to provide for the interconnection of DG facilities. If customer intends to sell energy and capacity to the Company, customer must also execute a Power Purchase Agreement (PPA) with the Company. The term of these agreements not subject to the MN DIP or MN DIA may be up to 20 years. Each customer DG project under this tariff will be evaluated on a customer-specific and site-specific basis, to determine eligibility, system reliability and impact on Company's transmission and distribution systems.

To qualify for a contract under this tariff, the customer must be doing one of the following: (1) Selling all of the DG energy to the Company, (2) Supplying all of the DG energy to itself, or (3) Self generating part of its needs and selling the remaining energy to the Company. The Company shall purchase all electricity generated and offered for sale to the Company by the DG facility pursuant to the terms, conditions and price schedule provided in the PPA. Under certain circumstances the customer may qualify for a Distribution Facility Credit, which shall be governed under the Interconnection Agreement.

**STANDBY SERVICE REQUIREMENTS**

As indicated above, customer may sell the DG energy to the Company or use the DG energy to serve customer's own load. There is no requirement to contract for Standby Services if all of the DG energy is sold to the Company. There is also no requirement to contract for Standby Services in cases where the customer uses the DG energy to serve their own load, provided the maximum capacity of the DG is 100 kW or less. See the Company's Standby Service Rider tariff for details concerning the provision of Standby Service.

A customer choosing to use DG to serve more than 100 kW of their own load must either contract for Standby Services under the Company's Standby Service Rider or choose to be a "physical assurance" customer. A physical assurance customer is a customer who agrees to not require standby services and has a mechanical device that ensures that standby service is not taken. The cost of the physical assurance device, is to be paid by the DG customer.

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(Continued on Sheet No. 10-75)

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**MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2**

**DISTRIBUTED GENERATION STANDARD  
INTERCONNECTION AND POWER PURCHASE TARIFF  
(Continued)**

Section No. 10  
2nd Revised Sheet No. 78

**Definition of Peak Periods**

The on-peak period is defined as those 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 a Saturday, the preceding Friday will be designated a holiday. When a designated holiday occurs on a Sunday, the following Monday will be designated a holiday. The off-peak period is defined as all other hours not designated as on-peak hours.

Summer months are July and August; Non-Summer months are all other months. Definition of on-peak and off-peak periods is subject to change with change in Company's system operating characteristics or electric energy market standards.

**TERMS AND CONDITIONS OF SERVICE**

1. Electric service provided by Company to customer at the same site during the same billing period shall be billed in accordance with the appropriate retail electric rates; thus, supplemental load service shall be provided to the DG customer through the Company's base electric rates. Company shall pay customer each month according to the applicable Energy and Capacity Purchase Payments and any applicable Distribution Facility Credit, established in the contracts under this tariff.
2. The customer must enter an Interconnection Agreement with the Company for the interconnection and parallel operation of any qualifying DG facility under this tariff.
3. In order to receive energy and capacity payments, the customer must execute a Power Purchase Agreement with Company.
4. Customer is responsible for any applicable study fees and interconnection costs. The customer must pay all such costs as specified in the Interconnection Agreement.
5. The customer shall be responsible for all costs associated with the installation, operation, and maintenance of the facility.
6. Company may assess a monthly fee for metering and billing the Energy and Capacity Purchase Payments and any applicable Distribution Facility Credit transactions. Typical costs for meter reading and billing are shown below. For most DG installations, two meters are required. The appropriate metering options available are determined on a project-by-project basis.
7. The voltage and phase of customer's distributed generation facility must be consistent with existing retail service configuration and is approved by the Company in accordance with the Company's interconnection requirements.
8. For interconnections not subject to the MN DIP or MN DIA, the customer must maintain a power factor close to unity as possible or as specified in the "Power Factor" provision of the "Distributed Generation Interconnection Requirements" section of this tariff. For interconnections that are subject to the MN DIP, the Power Factor shall be consistent with the MN Technical Requirements and MN DIA, including the Operating Agreement attached to the MN DIA.

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(Continued on Sheet No. 10-79)

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**MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2**

**DISTRIBUTED GENERATION STANDARD  
INTERCONNECTION AND POWER PURCHASE TARIFF  
(Continued)**

Section No. 10  
3rd Revised Sheet No. 79

**TERMS AND CONDITIONS OF SERVICE (Continued)**

9. Customer's DG facility shall not commence parallel operation until it has established, to the satisfaction of the Company that it complies with and has met the standards set forth in any applicable Commission or the Midwest Reliability Organization (MRO) or any successor organization rules, as well as the requirements specified in the "*Distributed Generation Interconnection Requirements*" or MN DIP, as applicable. Where the MN DIP applies, the provisions of the MN Technical Requirements and MN DIA (with its attachments) shall apply. If the interconnecting device is not Type-Certified or if multiple devices are operated in parallel at the facility, review and approval of the interconnecting devices and protection systems by a Professional Electrical Engineer, registered in the State of Minnesota, is required.
10. In addition to an automatic fail-safe device, the Company will require an accessible, company approved disconnection device having the capability of isolating the energy generated by each distributed generation facility. This device may be operated by either party at any time in order to maintain safe operating conditions.
11. The DG customer shall be responsible for any additional expense not covered in the terms and conditions of the Interconnection Agreement, which may be incurred by the Company on behalf of the customer or as a result of the customer's DG facility. The range of typical DG interconnection costs is shown below along with typical modifications and upgrades included in the interconnection cost.
12. During the term of the Interconnection Agreement the DG customer shall maintain 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 DG facility. The amount of such insurance coverage shall be as specified in the Interconnection Agreement.
13. The Company is under no obligation to revise or transfer customer's existing Qualifying Facility (QF) contract(s) still in effect to an alternative PPA, which is subsequently made available.
14. In order to be eligible to receive a capacity payment, the facility must meet the requirements for capacity accreditation in the Midwest Reliability Organization (MRO) or any successor organization, as specified in the rules and procedures of the Midwest Reliability Organization (MRO) or any successor organization.
15. The Company shall have the right to seek capacity accreditation through its own effort with its affiliated power pool and customer will provide reasonable cooperation.
16. The Company shall recover energy costs associated with these purchases pursuant to the provisions of the Fuel Clause Rider.

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(Continued on Sheet No. 10-80)

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**MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2**

**DISTRIBUTED GENERATION STANDARD  
 INTERCONNECTION AND POWER PURCHASE TARIFF  
 (Continued)**

Section No. 10  
 2nd Revised Sheet No. 80

**TYPICAL COSTS FOR METER READING AND BILLING**

Meter Reading	\$1.00
Billing	\$5.00
Total Monthly Cost	\$6.00

Notes:

1. For interconnections not subject to MN DIP and MN DIA, see Table 5a, Section 10, Sheet No. 148 of Tariff for further information on metering.
2. Costs in the table do not include the initial cost of metering and installation costs.
3. Costs in the table do not include services and metering provided to the customer under a traditional, non-DG tariffed rate.
4. Additional customer requested meters, special configurations, or severe access problems that are not covered in the tariff are not included in the table and may result in higher monthly fees.
5. Meter costs provided are on a per meter basis.
6. Billing costs provided are on a per billing account basis.
7. Arrangements not covered in the tariff are not included in the table and may result in higher monthly fees.
8. The above does not include monthly telemetry costs.

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**Range of Typical DG Interconnection Costs**

DG Size Range	Limited Parallel	Extended Parallel
0 - <40 kW	\$300 to \$10,000	\$300 to \$10,000
40 - 250 kW	\$500 to \$15,000	\$500 to \$20,000
>250 – 1000 kW	\$2,000 to \$25,000	\$2,000 to \$150,000
>1 MW	\$5,000 to \$35,000	\$5,000 to \$1,000,000

Notes:

1. All costs are scoping estimates. Actual circumstances and detailed studies, as specified in the tariff, will determine the actual requirements and costs.
2. Costs provided for Limited Parallel interconnections assume no intentional power flowing to Xcel Energy and the parallel operation is of limited duration such as during a closed transition load transfer.
3. Cost provided for > 1 MW does not include telemetry costs.
4. The minimum cost value entails a simple interconnection with no system modifications required.
5. The maximum cost value provides a high-end estimate that includes significant system modifications. The values assume that the generation facility is of a size that is easily accommodated by an existing system. Generation facilities that are large compared to the “strength” (load capacity and fault current capability) of the distribution system can require extensive system upgrades far in excess of the cost values provided in the table.
6. Costs provided do not include additional expenses imposed by local government requirements. For example, a local ordinance that requires all new distribution to be built underground may result in significant costs beyond those represented in the table.

(Continued on Sheet No. 10-81)

**State of Minnesota  
Interconnection Process  
for Distributed Generation Systems**

**INTRODUCTION**

This document (Sheet Nos. 10-83 through 10-134.2) has been prepared to explain the process established in the State of Minnesota, to interconnect a Generation System with Xcel Energy for applications submitted prior to June 17, 2019 that have been deemed complete no later than August 16, 2019. This document covers the interconnection process for all types of Generation Systems which are rated 10MW's or less of total generation Nameplate Capacity; are planned for interconnection with Xcel Energy; are not intended for wholesale transactions and aren't anticipated to affect the transmission system. This document does not discuss the interconnection Technical Requirements, which are covered in the "**State of Minnesota Distributed Generation Interconnection Requirements**" document (at Sheet Nos. 10-135 through 10-159.6). This other interconnection requirements document also provides definitions and explanations of the terms utilized within this document. To interconnect a Generation System with Xcel Energy, there are several steps that must be followed. This document outlines those steps and the Parties' responsibilities. At any point in the process, if there are questions, please contact the Generation Interconnection Coordinator at Xcel Energy. Since this document has been developed to provide an interconnection process which covers a very diverse range of Generation Systems, the process appears to be very involved and cumbersome. For many Generation Systems the process is streamlined and provides an easy path for interconnection.

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The promulgation of interconnection standards for Generation Systems by the Minnesota Public Utilities Commission (MPUC) must be done in the context of a reasonable interpretation of the boundary between state and federal jurisdiction. The Federal Energy Regulatory Commission (FERC) has asserted authority in the area, at least as far as interconnection at the transmission level is concerned. This, however, leaves open the question of jurisdiction over interconnection at the distribution level. The Midwest Independent System Operator's (MISO) FERC Electric Tariff, (first revised volume 1, August 23,2001) Attachment R (Generator Interconnection Procedures and Agreement) states in section 2.1 that "Any existing or new generator connecting at transmission voltages, sub-transmission voltages, or distribution voltages, planning to engage in the sale for resale of wholesale energy, capacity, or ancillary services requiring transmission service under the Midwest ISO OATT must apply to the Midwest ISO for interconnection service". Further in section 2.4 it states that "A Generator not intending to engage in the sale of wholesale energy, capacity, or ancillary services under the Midwest ISO OATT, that proposes to interconnect a new generating facility to the distribution system of a Transmission Owner or local distribution utility interconnected with the Transmission System shall apply to the Transmission Owner or local distribution utility for interconnection". It goes on further to state "Where facilities under the control of the Midwest ISO are affected by such interconnection, such interconnections may be subject to the planning and operating protocols of the Midwest ISO...."

Through discussions with MISO personnel and as a practical matter, if the Generation System Nameplate Capacity is not greater in size than the minimum expected load on the distribution substation, that is feeding the proposed Generation System, and Generation System's energy is not being sold on the wholesale market, then that installation may be considered as not "affecting" the transmission system and the interconnection may be considered as governed by this process. If the Generation System will be selling energy on the wholesale market or the Generation System's total Nameplate Capacity is greater than the expected distribution substation minimum load, then the Applicant shall contact MISO (Midwest Independent System Operator) and follow their procedures.

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(Continued on Sheet No. 10-84)

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**Distributed Energy Resources Interconnection Process**

**(MN DIP)**

**v.2.3**

**(As adopted for Northern States Power Company)**

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**MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2**

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**MINNESOTA DISTRIBUTED ENERGY RESOURCES  
INTERCONNECTION PROCESS (MN DIP)  
(Continued)**

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**Glossary of Terms**

**Attachment 1: Pre-Application Report Request Form**

**Attachment 2: Simplified Application Form**

**Exhibit A – Terms and Conditions for Interconnecting an Inverter-Based DER No Larger than 20 kW**

**Exhibit B – For Energy Storage**

**Exhibit C – Certificate of Completion**

**Attachment 3: Interconnection Application Form**

**Attachment 4: Certification Codes and Standards**

**Attachment 5: Certification of Distributed Energy Resource Equipment**

**Attachment 6: System Impact Study Agreement**

**Attachment 7: Facilities Study Agreement**

**Attachment 8: Flow Charts**

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**Foreword**

The Minnesota Public Utilities Commission is charged by Minnesota Statute §216B.1611 to establish generic, statewide standards for the interconnection and parallel operation of distributed energy resources<sup>1</sup> of no more than 10 MW. These updated Minnesota interconnection standards strive to:

- 1) Establish a practical, efficient interconnection process that is easily understandable for everyone involved;
- 2) Maintain a safe and reliable electric system at fair and reasonable rates;
- 3) Give maximum possible encouragement of distributed energy resources consistent with protection of the ratepayers and the public;
- 4) Be consistent statewide and incorporate newly revised national standards;
- 5) Be technology neutral and non-discriminatory.

At a minimum, these standards must:

- 1) To the extent possible, be consistent with industry and other federal and state operational and safety standards;
- 2) Provide for the low-cost, safe, and standardized interconnection of distributed energy resources;
- 3) Take into account differing system requirements and hardware; as well as, the overall demand load requirements of individual utilities;
- 4) Allow for reasonable terms and conditions, consistent with the cost and operating characteristics of the various technologies, so that a utility can reasonably be assured of the reliable, safe and efficient operation of the interconnected equipment;
- 5) Establish a standard interconnection agreement that sets forth the contractual terms under which a company and customer agree that one or more facilities may be interconnected with the company's utility system; and standard applications for interconnection and parallel operation with the utility system.

This standards document is modelled after the Federal Energy Regulatory Commission's Small Generator Interconnection Process (FERC SGIP), and explains the process to interconnect Distributed Energy Resources for parallel operation with the Area Electrical Power System (Area EPS); including templates for applications and study agreements. There are three companion documents: 1) Minnesota Distributed Energy Resource Interconnection Agreement (MN DIA); 2) Minnesota Distributed Energy Resource Technical Interconnection and Interoperability Requirements (MN Technical Requirements or Minnesota Technical Requirements)<sup>2</sup>; and until updated or replaced 3) Attachment 6 Rates from the statewide interconnection standards adopted in 2004 (September 28, 2004 Order in E-999/CI-01-1023.)

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<sup>1</sup> "Distributed Energy Resources" (DER) is emerging terminology used to capture both traditional "distributed generation" and storage technologies; however, this term is not currently defined in Minnesota statute or rules, and at times the Commission applies it to a broader category that includes demand-side management (controlling load like air conditioners or water heaters) and, in some cases, even energy efficiency and electric vehicles. For this document, the definition is consistent with IEEE 1547 and limited to generation and storage, and does not include DER that behave solely as load.

<sup>2</sup> See MN DIP Attachment 4: Certification Codes and Standards regarding statewide technical requirements in the interim between adoption of MN DIP and adoption of updated MN Technical Requirements.

(Continued on Sheet No. 10-166)

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**Section 1. Application**

1.1 Applicability

1.1.1 The Minnesota Distributed Energy Resources Interconnection Process (MN DIP) applies to any Distributed Energy Resource (DER) no larger than 10 MW interconnecting to, and operating in parallel with, an Area EPS distribution system in Minnesota.<sup>1</sup> See Minnesota Technical Requirements for more detail on what constitutes parallel operation. For the applicable interconnection process for DERs larger than 10 MW interconnected to, and operated in parallel with, an Area EPS distribution system in Minnesota, contact the Area EPS for details on the applicable interconnection process. The exception is Distributed Energy Resource interconnections that are subject to Federal Energy Regulatory Commission (FERC) jurisdiction.<sup>2</sup>

1.1.1.1 An application to interconnect a certified<sup>3</sup>, inverter-based DER no larger than 20 kilowatts (kW) shall be evaluated under the Section 2 Simplified Process.

1.1.1.2 An application to interconnect a DER shall be evaluated under the Section 3 Fast Track Process if the eligibility requirements of Section 3.1 Applicability

1.1.1.3 An application to interconnect a DER that does not meet the Simplified Process or Fast Track Process eligibility requirements, or does not pass the review as described in either process, shall be evaluated under the Study Process.

1.1.1.4 Attachment 8 contains flow charts that provide an overview of the Simplified Process, the Fast Track Process, and the Study Process.

1.1.1.5 Prior to submitting an Interconnection Application, the Interconnection Customer may ask the Area EPS Operator's Interconnection Coordinator whether the proposed interconnection is subject to these procedures. The Area EPS Operator shall respond within fifteen (15) Business Days.

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<sup>1</sup> [Minnesota Statute §216B.1611](#)

<sup>2</sup> The Federal Regulation and Development of Power Act ([16 U.S. Code Subchapter II](#)) outlines federal regulation of wholesale sales and transmission in interstate commerce and state regulation of generation, distribution, and retail sales.

<sup>3</sup> See Attachment 4 and Attachment 5 for certification criteria.

(Continued on Sheet No. 10-167)

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- 1.1.2 Capitalized terms used herein shall have the meanings specified in the Glossary of Terms or the body of these procedures. All references to DER Nameplate Rating or maximum capacity as described in 5.14.3<sup>1</sup> herein are in alternating current (AC).
- 1.1.3 Neither these procedures nor the requirements included hereunder unless by mutual agreement of the Area EPS Operator and the Interconnection Customer apply to DERs interconnected, approved for interconnection or Interconnection Applications submitted to by the Area EPS Operator prior to June 17, 2019, and later deemed complete (provided these applications are later deemed complete following any applicable revisions no later than 60 days following this date). These procedures and the requirements hereunder shall apply to applications to modify existing DERs if the application to modify is submitted on or after June 17, 2019.
- 1.1.3.1 Nothing in this MN DIP affects an Interconnection Customer's Queue Position assigned before the effective date of this MN DIP. The Parties agree to complete work on any interconnection study agreement executed prior to the effective date of this MN DIP in accordance with the terms and conditions of that interconnection study agreement. Any new studies or other additional work will be completed pursuant to this MN DIP.
- 1.1.4 Infrastructure security of electric system equipment and operations and control hardware and software is essential to ensure day-to-day reliability and operational security. All public utilities are expected to meet basic standards for electric system infrastructure and operational security, including physical, operational, and cyber-security practices.
- 1.1.5 References in these procedures to an Interconnection Agreement are to the Uniform Statewide Contract or Minnesota Distributed Energy Resource Interconnection Agreement (MN DIA).
- 1.1.5.1 The Uniform Statewide Contract (Minn. R. 7835.9910) replaces the need to use the MN DIA if all of the following conditions are met and the Interconnection Customer does not request the MN DIA:
- 1.1.5.1.1 Certified equipment
- 1.1.5.1.220 kWac or less of a qualifying DER Capacity
- 1.1.5.1.3No Area EPS system modifications are required to accommodate the DER
- 1.1.5.1.4Signed Uniform Statewide Contract Attachment 1: Pre-Application Report Request Form

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<sup>1</sup> See Minnesota Technical Requirements for more detail on when to apply Nameplate Rating or a limited maximum capacity as defined in 5.14.3.

(Continued on Sheet No. 10-168)

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**MINNESOTA DISTRIBUTED ENERGY RESOURCES  
INTERCONNECTION PROCESS (MN DIP)  
(Continued)**

Section No. 10  
Original Sheet No. 168

Requests for an Interconnection Pre-Application Report shall include the information identified in Sections 1.4.1.1 through 1.4.1.8 of the Minnesota Distributed Energy Resource Interconnection Process (MN DIP) (and as provided in the fields below) to clearly and sufficiently identify the location of the proposed Point of Common Coupling and relevant project details.

Additionally, a non-refundable processing fee of \$300 is required as specified in Section 1.4.1 of the MN DIP.

Upon receipt of a complete Request Form (including site map) and processing fee, the Area EPS Operator shall provide a report containing as much of the data described in Section 1.4.2 as is pre-existing and available within 15 business days. A Pre-Application Report request does not obligate the Area EPS Operator to conduct a study or other analysis of the proposed project if data is not available.

1. Requestor Contact Information:

Name: \_\_\_\_\_  
Company Name (if applicable): \_\_\_\_\_  
Street Address: \_\_\_\_\_  
City/State/Zip: \_\_\_\_\_  
Phone Number: \_\_\_\_\_  
Email Address: \_\_\_\_\_

2. Project Information:

a) Project Name: \_\_\_\_\_

b) Planned Equipment:

DER Nameplate Rating: \_\_\_\_\_ kW  
DER Type: Inverter based Other \_\_\_\_\_  
DER Number of Phases: Single Three  
Service Voltage (120/240 V, 277/480 V, etc.) : \_\_\_\_\_ V  
Stand-alone Generator (no onsite load)? Yes No  
Existing DER? Yes No  
Location of Existing DER (include county):  
\_\_\_\_\_

c) Proposed Point of Common Coupling:

Note: The proposed Point of Common Coupling shall be defined by all or some combination of the below information, enough to clearly identify the location of the Point of Common Coupling.

Street Address: \_\_\_\_\_  
City/State/Zip Code: \_\_\_\_\_  
County: \_\_\_\_\_  
Cross streets: \_\_\_\_\_  
Latitude (in degrees/minutes/seconds or 6 decimal places):  
\_\_\_\_\_  
Longitude: \_\_\_\_\_  
Meter number: \_\_\_\_\_  
Utility equipment number (e.g. pole number): \_\_\_\_\_  
Other identifying information: \_\_\_\_\_  
\_\_\_\_\_

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d) An attached Site Map is required that shows the following:

- True north
- Proposed project location, including general area of project
- Proposed service point location
- Major roads, streets and/or highways

3. Requestor Signature:

I understand that the confidentiality provisions of MN DIP Section 5.9 apply to the contents of the Pre-Application Report. The MN DIP Section 5.9, states in part as follows:

*“Each Party shall hold in confidence and shall not disclose Confidential Information, to any person (except employees, officers, representatives and agents, who agree to be bound by this section). Confidential Information shall be clearly marked as such on each page or otherwise affirmatively identified. ... Each Party shall employ at least the same standard of care to protect Confidential Information obtained from the other Party as it employs to protect its own Confidential Information. ... Each Party is entitled to equitable relief, by injunction or otherwise, to enforce its rights under this provision to prevent the release of Confidential Information without bond or proof of damages, and may seek other remedies available at law or in equity for breach of this provision.”*

I understand that 1) the existence of “Available Capacity” in no way implies that an interconnection up to this level may be completed without impacts since there are many variables studied as part of the interconnection review process, 2) the distribution system is dynamic and subject to change and 3) data provided in the Pre-Application Report may become outdated and not useful at the time of submission of the complete Interconnection Request.

Name (type or print): \_\_\_\_\_  
Signature: \_\_\_\_\_  
Date: \_\_\_\_\_

Pre-Application Report requests shall be submitted with attachments to the Company through its online portal available at [www.xcelenergy.com](http://www.xcelenergy.com) or other applicable URL. Only if the online portal is unavailable submit to Distributed Energy Resources at [MNDER@xcelenergy.com](mailto:MNDER@xcelenergy.com)

Fees shall be submitted online through the online application portal or Xcel Energy, Attn: Distributed Energy Resources, at P.O.Box 59 Minneapolis MN 55440-0059.

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- 1.1.5.1.5 Attachment 2: Simplified Application Form  
Attachment 2: Simplified Application
- 1.1.5.1.6 The Area EPS Operator may propose in its tariff an increase to the size threshold for the application of the Uniform Statewide Contract as a replacement for the MN DIA in its tariff. There may also be situations where the Interconnection Customer would need to sign both the Uniform Statewide Contract and the MN DIA; such as, where the Nameplate Rating of the system is above the size threshold where the Uniform Statewide Contract replaces the MN DIA but the DER qualifies for net metering (Minn. Stat. §216B.164 and Minn. R. Ch. 7835) under the Uniform Statewide Contract.
- 1.1.5.2 The reference to Interconnection Agreement also applies when the Area EPS Operator and Interconnection Customer modify MN DIA with Commission approval.
- 1.1.6 The Area EPS Operator and Interconnection Customer may jointly seek Commission approval of an amendment to the MN DIA for use between them for a specific Interconnection Application in the following ways:
  - 1.1.6.1 File a Petition with the Commission, or
  - 1.1.6.2 File a Notice with the Commission of the proposed amendment. The Notice should include a copy of the amendment showing in redline format how the amendment would alter the MN DIA between the Area EPS Operator and Interconnection Customer for the Interconnection Application at issue. If no objection or notice of intent to object is filed within 30 days, then the proposed amendment would be considered to be approved by the Commission. If there is a timely filed objection of notice of intent to object, then the proposed amendment would not be considered to have been approved by the Commission and could only be used if the Commission subsequently issues a written order authorizing its use.
- 1.1.7 Commission approval of an amendment to the Interconnection Agreement is not needed where such an amendment only addresses updating or correcting: 1) information specified in the Interconnection Application; 2) exhibits or attachments to the Interconnection Agreement as long as they are not additional agreements or requirements not covered in the MN DIP or MN Technical Requirements; or 3) information provided in the blank lines to the MN DIA or Uniform Statewide Contract forms.

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1.2 Online Applications and Electronic Submission

1.2.1 The Area EPS Operator shall allow Pre-Application Report requests and Interconnection Applications to be submitted electronically; such as, through the Area EPS Operator's website or via email. The Area EPS Operator may allow the Interconnection Agreement to be submitted electronically.

1.2.1.1 The Area EPS Operator may allow for electronic signatures to be used for the Pre-Application Report request, Interconnection Application and related agreements, including the Interconnection Agreement, and forms.

1.2.2 The Area EPS Operator shall dedicate a page on its website or direct customers to a website with generic information on the MN DIP that the Area EPS Operator finds comports with its process. The relevant information that shall be available to the Interconnection Customer via a website includes:

1.2.2.1 The MN DIP and attachments in an electronically searchable format;

1.2.2.2 The Area EPS Operator's Interconnection Application and all associated forms in a format that allows for electronic entry of data;

1.2.2.3 The Uniform Statewide Contract and the Area EPS Operator's tariff version of the MN DIA;

1.2.2.4 Example documents; including, at a minimum, an example one-line diagram with required labels; and

1.2.2.5 Contact information for the Area EPS Operator's DER interconnection coordinator(s) and submission of Interconnection Applications, including email and phone number.

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1.3 Communications

- 1.3.1 The Area EPS Operator shall designate a DER interconnection coordinator(s) and this person or persons shall serve as a single point of contact from which general information on the application process and on Affected System(s) can be obtained through informal request from the Interconnection Customer presenting a proposed project for a specific site. The name, telephone number, and e-mail address of such contact employee or office shall be made available on the Area EPS Operator's Internet website in accordance with section 1.2.2.5. The Area EPS Operator may have several DER Interconnection Coordinators assigned. The DER Interconnection Coordinator shall be available to provide coordinator assistance with the Interconnection Customer, but is not responsible to directly answer or resolve all of the issues involved in review and implementation of the interconnection process and standards. Upon request, electric system information provided to the Interconnection Customer should include relevant system study results, interconnection studies, and other materials useful to an understanding of an interconnection at a particular point on the Area EPS Operator's System, to the extent such provision does not violate the privacy policies of the Commission, confidentiality provisions of prior agreements or critical infrastructure requirements. This listing does not include a Pre-Application Report under Section 1.4. The Area EPS Operator shall comply with reasonable requests for such information.
- 1.3.2 The Interconnection Customer may designate, on the Interconnection Application or in writing after the Application has been submitted, an Application Agent to serve as the single point of contact to coordinate with the DER Interconnection Coordinator on their behalf. Designation of an Application Agent does not absolve the Interconnection Customer from signing interconnection documents and the responsibilities outlined in the MN DIP and Interconnection Agreement.
- 1.3.3 Engineering Communication: Upon request of either party or the Commission, for the purpose of exchanging information regarding an active Interconnection Application, the Area EPS Operator and the Interconnection Customer shall each identify one point of contact with technical expertise for their organizations.

1.4 Pre-Application Report

- 1.4.1 In addition to the information described in section 1.3.1, which may be provided in response to an informal request, an Interconnection Customer may submit a formal written request form along with a non-refundable fee of up to \$300 for a Pre-Application Report on a proposed project at a specific site. The Area EPS Operator shall provide the data described in section 1.4.2 to the Interconnection Customer within fifteen (15) Business Days of receipt of the completed request form and payment of the up to \$300 fee. The Pre-Application Report produced by the Area EPS Operator is non-binding, does not confer any rights, and the Interconnection Customer must still successfully apply to interconnect to the Area EPS Operator's system. The written Pre-Application Report request form shall include the information in sections 1.4.1.1 through 1.4.1.8 below to clearly and sufficiently identify the location of the proposed Point of Common Coupling.

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- 1.4.1.1 Project contact information, including name, address, phone number, and email address.
  - 1.4.1.2 Project location (street address with nearby cross streets and town). Interconnection Customer may choose to also provide an aerial map or GPS coordinates for increased accuracy.
  - 1.4.1.3 Meter number, pole number, or other equivalent information identifying proposed Point of Common Coupling, if available.
  - 1.4.1.4 DER type(s) (e.g., solar, wind, combined heat and power, storage, solar + storage, etc.).
  - 1.4.1.5 Nameplate Rating (alternating current kW).
  - 1.4.1.6 Single or three phase DER configuration.
  - 1.4.1.7 Stand-alone generator (no onsite load, not including station service – Yes or No?).
  - 1.4.1.8 Is new service requested? Yes or No? If there is existing service, include the customer account number, site minimum and maximum current or proposed electric loads in kW (if available) and specify how the load is expected to change.
- 1.4.2 Using the information provided in the Pre-Application Report request form in section 1.4.1, the Area EPS Operator will identify the substation/area bus, bank or circuit likely to serve the proposed Point of Common Coupling. This selection by the Area EPS Operator does not necessarily indicate, after application of the screens and/or study, that this would be the circuit the project ultimately connects to. The Interconnection Customer must request additional Pre-Application Reports if information about multiple Points of Common Coupling is requested. Subject to 1.4.3, the Pre-Application Report will include the following information:
- 1.4.2.1 Total capacity (in megawatts (MW)) of substation/area bus, bank or circuit based on normal or operating ratings likely to serve the proposed Point of Common Coupling.
  - 1.4.2.2 Existing aggregate generation capacity (in MW) interconnected to a substation/area bus, bank or circuit (i.e., amount of generation online) likely to serve the proposed Point of Common Coupling.
  - 1.4.2.3 Aggregate queued generation capacity (in MW) for a substation/area bus, bank or circuit (i.e., amount of generation in the queue) likely to serve the proposed Point of Common Coupling.

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- 1.4.2.4 Available capacity (in MW) of substation/area bus or bank and circuit likely to serve the proposed Point of Common Coupling (i.e., total capacity less the sum of existing aggregate generation capacity and aggregate queued generation capacity).
  - 1.4.2.5 Substation nominal distribution voltage and/or transmission nominal voltage if applicable.
  - 1.4.2.6 Nominal distribution circuit voltage at the proposed Point of Common Coupling.
  - 1.4.2.7 Approximate circuit distance between the proposed Point of Common Coupling and the substation.
  - 1.4.2.8 Relevant line section(s) actual or estimated peak load and minimum load data, including daytime minimum load as described in section 3.4.4.1 below and absolute minimum load, when available.
  - 1.4.2.9 Whether the Point of Common Coupling is located behind a line voltage regulator.
  - 1.4.2.10 Number and rating of protective devices and number and type (standard, bi-directional) of voltage regulating devices between the proposed Point of Common Coupling and the substation/area. Identify whether the substation has a load tap changer.
  - 1.4.2.11 Number of phases available on the Area EPS medium voltage system at the proposed Point of Common Coupling. If a single phase, distance from the three-phase circuit.
  - 1.4.2.12 Limiting conductor ratings from the proposed Point of Common Coupling to the distribution substation.
  - 1.4.2.13 Whether the Point of Common Coupling is located on a spot network, grid network, or radial supply.
  - 1.4.2.14 Based on the proposed Point of Common Coupling, existing or known constraints such as, but not limited to, electrical dependencies at that location, short circuit interrupting capacity issues, power quality or stability issues on the circuit, capacity constraints, or secondary networks.
- 1.4.3 The Pre-Application Report need only include existing data. A request for a Pre-Application Report does not obligate the Area EPS Operator to conduct a study or other analysis of the proposed DER in the event that data is not readily available. If the Area EPS Operator cannot complete all or some of a Pre-Application Report due to lack of available data, the Area EPS Operator shall provide the Interconnection Customer with a Pre-Application Report that includes the data that is available. The confidentiality provisions found in 5.9 apply to Pre-Application Reports.

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- 1.4.4 The provision of information on “available capacity” pursuant to section 1.4.2.4 does not imply that an interconnection up to this level may be completed without impacts since there are many variables studied as part of the interconnection review process. The distribution system is dynamic and subject to change, and data provided in the Pre-Application Report may become outdated at the time of the submission of the complete Interconnection Application. Notwithstanding any of the provisions of this section, the Area EPS Operator shall, in good faith, include data in the Pre-Application Report that represents the best available information at the time of reporting.

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1.5 Interconnection Application

- 1.5.1 The Interconnection Customer shall submit an Interconnection Application to the Area EPS Operator, together with the processing fee or deposit specified in the Interconnection Application. Additional fees or deposits for the interconnection process shall not be required, except as otherwise specified in these procedures. Application form templates are available in Attachment 2: Simplified Application Form and Attachment 3. The specific fees for Simplified Process, Fast Track Process and Study Process are:

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- 1.5.2 The Interconnection Application shall be date- and time-stamped upon initial and, if necessary, resubmission receipt. Unless Section 2 Simplified Process applies, the Interconnection Customer shall be notified of receipt by the Area EPS Operator within three (3) Business Days of receiving the Interconnection Application. The Area EPS Operator shall notify the Interconnection Customer within ten (10) Business Days of the receipt of the Interconnection Application as to whether the Interconnection Application is complete or incomplete. If the Interconnection Application is incomplete, the Area EPS Operator shall provide along with the notice that the Interconnection Application is incomplete, a written list detailing all information that must be provided to complete the Interconnection Application. The Interconnection Customer will have ten (10) Business Days after receipt of the notice to submit all of the listed information. If the Interconnection Customer does not provide the listed information within the deadline the Interconnection Application will be deemed withdrawn. An Interconnection Application will be deemed complete upon submission of documents adhering to Minnesota Technical Requirements and containing the listed information to the Area EPS Operator. The Area EPS Operator will have five (5) Business Days to review the additional material and notify the Interconnection Customer if the Interconnection Application is deemed complete. The date-and time- stamp of receipt of a complete Interconnection Application shall be accepted as the qualifying date for the purposes of establishing queue position as described in section 1.8.
- 1.6 Modification of the Interconnection Application or a DER Interconnection
- 1.6.1 At any time after an Interconnection Application is deemed complete, including after the receipt of Fast Track, supplemental review, system impact study, and/or facilities study results, the Interconnection Customer, the Area EPS Operator, or the Affected System owner may identify modifications to the planned Interconnection that may improve the costs and benefits (including reliability) of the Interconnection, and/or the ability of the Area EPS Operator to accommodate the Interconnection. The Interconnection Customer shall submit to the Area EPS Operator, in writing, all proposed modifications to any information provided in the Interconnection Application. Neither the Area EPS Operator nor the Affected System operator may unilaterally modify the Interconnection Application.
- 1.6.2 Within ten (10) Business Days of receipt of a proposed modification, the Area EPS Operator shall evaluate whether a proposed modification to either an Interconnection Application or an existing DER Interconnection constitutes a Material Modification. If applicable, the Area EPS Operator shall make Reasonable Effort to consult with the Affected System owner. The definition in Glossary of Terms includes examples of what does and does not constitute a Material Modification.

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- 1.6.2.1 If the proposed modification is determined to be a Material Modification, then the Area EPS Operator shall notify the Interconnection Customer in writing that the Customer may: 1) withdraw the proposed modification; or 2) proceed with a new Interconnection Application for such modification. The Interconnection Customer shall provide its determination in writing to the Area EPS Operator within ten (10) Business Days after being provided the Material Modification determination results. If the Interconnection Customer does not provide its determination, the Customer's Application shall be deemed withdrawn.
- 1.6.2.2 If the proposed modification is determined not to be a Material Modification, then the Area EPS Operator shall notify the Interconnection Customer in writing that the modification has been accepted and that the Interconnection Customer shall retain its eligibility for interconnection, including its place in the interconnection queue.
- 1.6.3 Any dispute as to the Area EPS Operator's determination that a modification constitutes a Material Modification shall proceed in accordance with the dispute resolution provisions in section 5.3 of these procedures.
- 1.6.4 Any modification to machine data, equipment configuration or to the interconnection site of the DER not agreed to in writing by the Area EPS Operator and the Interconnection Customer may be deemed a withdrawal of the Interconnection Application and may require submission of a new Interconnection Application, unless proper notification of each Party by the other as described in sections 1.6.1 and 1.6.2.
- 1.7 Site Control
- Documentation of site control must be submitted with the Interconnection Application. Site control may be demonstrated through providing documentation showing any of the following:
- 1.7.1 Ownership of, a leasehold interest in, or a right to develop a site for the purpose of constructing the DER;
- 1.7.2 An option to purchase or acquire a leasehold site for such purpose; or
- 1.7.3 An exclusivity or other business relationship between the Interconnection Customer and the entity having the right to sell, lease, or grant the Interconnection Customer the right to possess or occupy a site for such purpose; or
- 1.7.4 For DERs utilizing the Section 2 Simplified Process, proof of site control may be demonstrated by the site owner's signature on the Interconnection Application.

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1.8 Queue Position

- 1.8.1 Queue Position is assigned by the Area EPS Operator based on when the Interconnection Application is deemed complete as described in section 1.5.2. The Queue Position of each Interconnection Application will be used to determine the cost responsibility for the Upgrades necessary to accommodate the interconnection. The Queue Position also establishes conditional interconnection capacity for an Interconnection Customer, contingent upon all requirements of the MN DIP and MN Technical Requirements being met.
- 1.8.2 Subject to the provisions in sections 1.5, 1.6, and 1.7, the DER shall retain the Queue Position assigned to their Interconnection Application throughout the review process for the purpose of determining cost responsibility and conditional interconnection capacity, including when moving through the processes covered by Section 2 Simplified Process and Section 3 Fast Track Process. Failure by the Interconnection Customer to meet the time frames outlined in these procedures or request a timeline extension shall result in a withdrawal of the Interconnection Application. The Area EPS Operator shall notify the Interconnection Customer of the missed time frame with an opportunity to request a timeline extension as defined in section 5.2.3 before the Interconnection Application is deemed withdrawn.
- 1.8.3 The Area EPS Operator shall maintain a single, administrative queue and may manage the queue by geographical region (i.e. feeder, substation, etc.) This administrative queue shall be used to address Interconnection Customer inquiries about the queue process. If the Area EPS Operator and the Interconnection Customer(s) agree, Interconnection Applications may be studied in clusters for the purpose of the system impact study; otherwise, they will be studied serially.
- 1.8.4 The Area EPS Operator shall maintain a public interconnection queue, available in a sortable spreadsheet format on its website, which it shall update on at least a monthly basis unless no changes to the spreadsheet have occurred in that month. The date of the most recent update shall be clearly indicated.
- 1.8.4.1 At a minimum, the following shall be included in the public interconnection queue:
- 1.8.4.1.1 Application or Queue Number
  - 1.8.4.1.2 Date Application Deemed Complete
  - 1.8.4.1.3 Interconnection Process Track (Simplified, Fast Track, or Study Process)
  - 1.8.4.1.4 Proposed DER Capacity (Nameplate Rating unless limited as defined in 5.14.3)
  - 1.8.4.1.5 DER type (technology)

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1.8.4.1.6 Proposed DER Location by geographic region (i.e. by feeder or line section)

1.8.4.1.7 Status of the Application's progress through the process (e.g. Initial Review, Supplemental Review, Facilities Study, Construction, Inspection, etc.)

## **Section 2. Simplified Process**

### 2.1 Applicability

2.1.1 For Certified, inverter-based DERs with a DER Capacity of 20 kW ac or less: The Area EPS Operator shall comport with the Simplified Process, including the time frames described in that process. Simplified Process eligibility does not imply or indicate that a DER will pass the Initial Review Screens, failure to pass the screens will route the application to the Fast Track Process.

2.1.2 Certified Equipment – UL 1741 listing is a common form of DER inverter certification. See Attachment 4: Certification Codes and Standards and Attachment 5: Certification of Distributed Energy Resource Equipment.

### 2.2 Simplified Process Application Review Process

2.2.1 The Interconnection Customer with an eligible DER shall complete the Simplified Process Application and submit it and the application processing fee to the Area EPS Operator. A Simplified Process Application template is provided in Attachment 2: Simplified Application Form

2.2.2 Within ten (10) Business Days of receipt of the Simplified Process Application, the Area EPS Operator shall acknowledge to the Interconnection Customer receipt of the Simplified Application, evaluate the Simplified Process Application for completeness, and notify the Interconnection Customer whether the Simplified Process Application is or is not complete, and, if not, identify what material is missing. The Area EPS Operator shall to the best of its ability identify all missing material and other errors or omissions at this time. The Interconnection Customer shall submit any additional material within five (5) Business Days of the Area EPS Operator's notice. The Area EPS Operator shall have an additional five (5) Business Days to review the additional material and notify the Interconnection Customer that the Simplified Process Application is complete.

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2.2.3 The Area EPS Operator shall determine if the DER can be interconnected safely and reliably using the Initial Review Screens contained in the Fast Track Process at 3.2.1, and without construction of facilities by the Area EPS Operator. The Area EPS Operator has twenty (20) Business Days from receipt of a complete Simplified Process Application to complete this process and inform the Interconnection Customer of the results.

Unless the Area EPS Operator determines and demonstrates that the DER cannot be interconnected safely and reliably or requires construction of facilities by the Area EPS Operator, the Area EPS Operator approves the Application and provides the Interconnection Customer an executable Uniform Statewide Contract or MN DIA within five (5) days as described in sections 1.1.5.1 and 5.1.1.

If the Area EPS Operator determines the DER can be connected safely and reliably only with construction of facilities by the Area EPS Operator, the Area EPS Operator shall follow the procedures set forth in Section 3.2.2.

If the Area EPS Operator does not or cannot determine that the DER may be interconnected safely and reliably unless the Interconnection Customer is willing to consider minor modifications or further study, the Area EPS Operator shall follow the procedures set forth in Section 3.2.3.

2.3 Simplified Interconnection

2.3.1 The Interconnection Customer shall sign and return the Interconnection Agreement within thirty (30) Business Days<sup>1</sup> or may request an extension as described in Section 5.1.2 and 5.2. The Interconnection Customer must submit to the Area EPS Operator either 1) a signed copy of the Uniform Statewide Contract, if applicable, which serves as both the power purchase agreement and Interconnection Agreement; or 2) the Interconnection Customer must submit a signed Uniform Statewide Contract, if applicable, and a separate MN DIA as described in section 1.1.5.

2.3.1.1 Upon receipt of the signed Interconnection Agreement, and then after fully executing it as provided for in Section 5.1.2, the Area EPS Operator shall schedule and execute appropriate construction of facilities, if necessary, which shall be completed prior to the Interconnection Customer returning the Certificate of Completion. If construction of facilities is required by the Area EPS Operator, the Area EPS Operator shall notify the customer upon completion of construction.

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<sup>1</sup> The 30-day timeframe in this step originates from Section 5.1.2 and does not represent a new step or timeframe.

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- 2.3.2 After installation, the Interconnection Customer returns the Certificate of Completion to the Area EPS Operator. Prior to parallel operation, and consistent with the MN DIP, the Area EPS Operator may inspect the DER for compliance with standards, which may include a witness test, and may schedule appropriate metering replacement, if necessary. The Area EPS Operator is obligated to complete the witness test, if required, within ten (10) Business Days of the receipt of the Certificate of Completion. If the Area EPS Operator does not inspect within ten (10) Business Days, the witness test is deemed waived.
- 2.3.3 Within three (3) Business Days of inspection or waiver of inspection, the Area EPS Operator shall notify the Interconnection Customer in writing that interconnection of the DER has permission to operate. If the witness test is not satisfactory, the Area EPS Operator has the right to disconnect the DER. The Interconnection Customer has no right to operate in parallel, except for optional testing not to exceed two hours, until permission to operate is granted by the Area EPS Operator.

### **Section 3. Fast Track Process**

#### 3.1 Applicability

- 3.1.1 The Fast Track Process is available to an Interconnection Customer proposing to interconnect a DER with the Area EPS Operator's Distribution System if the DER capacity does not exceed the size limits identified in this Section, including the table below and does not qualify for the Section 2 Simplified Process. Fast Track eligibility does not imply or indicate that a DER will pass the Fast Track Initial Review Screens in 3.2.1 or the Supplemental Review screens in 3.4 below.

Fast Track eligibility for DERs is determined based upon the generator type, the size of the generator, voltage of the line, and the location of and the type of line at the Point of Common Coupling. All synchronous and induction machines must be no larger than 2 MW to be eligible for Fast Track Process consideration. The Fast Track Process size limits are included in the table below.

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Fast Track Eligibility for Distributed Energy Resources		
Line Voltage	Fast Track Eligibility <sup>1</sup> Regardless of Location	Fast Track Eligibility for certified, inverter-based DER on a Mainline <sup>2</sup> and ≤ 2.5 Electrical Circuit Miles from Substation <sup>3</sup>
< 5 kV	≤ 500 kW	≤ 500 kW
≥ 5 kV and < 15 kV	≤ 1 MW	≤ 2 MW
≥ 15 kV and < 30 kV	≤ 3 MW	≤ 4 MW
≥ 30 kV and ≤ 69 kV	≤ 4 MW	≤ 5 MW

3.1.2 In addition to the size threshold, the Interconnection Customer's proposed DER must meet the codes, standards, and certification requirements of Attachment 4 and Attachment 5 of these procedures, or the Area EPS Operator has reviewed the design or tested the proposed DER and is satisfied that it is safe to operate.

3.2 Initial Review

Within 15 Business Days after the Area EPS Operator notifies the Interconnection Customer it has received a complete Interconnection Application, the Area EPS Operator shall perform an initial review using the screens set forth below, notify the Interconnection Customer of the results; including copies of the analysis and data underlying the Area EPS Operator's determinations under the screens.

The technical screens listed in this section shall not preclude the Area EPS Operator from seeking approval of tools that perform screening functions using different methodology given that the analysis is aimed at preventing the same voltage, thermal and protection limitations as the initial and supplemental review screens described below.

<sup>1</sup> Synchronous and induction machines eligibility is limited to no more than 2 MW even when line voltage is greater than 15 kV.

<sup>2</sup> For purposes of this table, a Mainline is the three-phase backbone of a circuit. It will typically constitute lines with wire sizes of 4/0 American wire gauge, 266 kcmil, 336.4 kcmil, 397.5 kcmil, 477 kcmil and 795 kcmil.

<sup>3</sup> An Interconnection Customer can determine this information about its proposed interconnection location in advance by requesting a pre-application report pursuant to section 1.4.

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**MINNESOTA DISTRIBUTED ENERGY RESOURCES  
 INTERCONNECTION PROCESS (MN DIP)  
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3.2.1 Initial Review Screens

- 3.2.1.1 The proposed DER's Point of Common Coupling must be on a portion of the Area EPS Operator's Distribution System.
- 3.2.1.2 For interconnection of a proposed DER to a radial distribution circuit, the aggregated generation, including the proposed DER, on the circuit shall not exceed 15% of the line section annual peak load as most recently measured. A line section is that portion of an Area EPS Operator's electric system connected to a customer bounded by automatic sectionalizing devices or the end of the distribution line. The Area EPS Operator may consider 100% of applicable loading (i.e., daytime minimum load for solar), if available, instead of 15% of line section peak load.
- 3.2.1.3 For interconnection of a proposed DER to the load side of network protectors, the proposed DER must utilize an inverter-based equipment package and, together with the aggregated other inverter-based DERs, shall not exceed the smaller of 5% of a network's maximum load or 50 kW.<sup>1</sup>
- 3.2.1.4 The proposed DER, in aggregation with other DERs on the distribution circuit, shall not contribute more than 10% to the distribution circuit's maximum fault current at the point on the high voltage (primary) level nearest the proposed Point of Common Coupling.
- 3.2.1.5 The proposed DER, in aggregate with other Distributed Energy Resources on the distribution circuit, shall not cause any distribution protective devices and equipment (including, but not limited to, substation breakers, fuse cutouts, and line reclosers), or Interconnection Customer equipment on the system to exceed 87.5% of the short circuit interrupting capability; nor shall the interconnection be proposed for a circuit that already exceeds 87.5% of the short circuit interrupting capability.
- 3.2.1.6 Using the table below, determine the type of interconnection to a primary distribution line. This screen includes a review of the type of electrical service provided to the Interconnecting Customer, including line configuration and the transformer connection to limit the potential for creating over-voltages on the Area EPS Operator's electric power system due to a loss of ground during the operating time of any anti-islanding function.

Primary Distribution Line Type	Type of Interconnection to Primary Distribution Line	Result/Criteria
Three-phase, three wire	3-phase or single phase, phase-to-phase	Pass screen
Three-phase, four wire	Effectively-grounded 3 phase or Single-phase, line-to-neutral	Pass screen

<sup>1</sup> Network protectors are protective devices used on secondary networks (spot and grid networks) to automatically disconnect its associated transformer when reverse power flow occurs. Secondary networks are most often used in densely populated downtown areas.

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- 3.2.1.7 If the proposed DER is to be interconnected on single-phase shared secondary, the aggregate generation capacity on the shared secondary, including the proposed DER, shall not exceed 20 kW or 65% of the transformer nameplate rating.
- 3.2.1.8 If the proposed DER is single-phase and is to be interconnected on a center tap neutral of a 240 volt service, its addition shall not create an imbalance between the two sides of the 240 volt service of more than 20% of the nameplate rating of the service transformer.
- 3.2.1.9 If the proposed DER is single-phase and is to be interconnected to a three-phase service, its Nameplate Rating shall not exceed 10% of the service transformer nameplate rating.
- 3.2.1.10 If the DER's Point of Common Coupling is behind a line voltage regulator<sup>1</sup>, the DER's Nameplate Rating shall be less than 250 kW.
- 3.2.2 If the proposed interconnection passes the screens, or if the proposed interconnection fails the screens, but the Area EPS Operator determines that the DER may nevertheless be interconnected consistent with safety, reliability, and power quality standards, the Interconnection Application shall proceed as follows:
- 3.2.2.1 If the proposed interconnection requires no construction of facilities by the Area EPS Operator on its own system, the Area EPS Operator shall provide the Interconnection Customer an executed Interconnection Agreement within five (5) Business Days after the determination.
- 3.2.2.2 If the proposed interconnection requires construction of any facilities, the Area EPS Operator shall notify the Interconnection Customer of such requirement when it provides the Initial Review results and copies of the analysis and data underlying the Area EPS Operator's determinations under the screens and either: 1) provide a good faith cost estimate; or 2) require a facilities study pursuant to 4.4.1. Within five (5) Business Days, the Interconnection Customer shall inform the Area EPS Operator if the Interconnection Customer elects to proceed with the proposed interconnection. If the Interconnection Customer makes such an election, the Area EPS Operator shall either provide: i) an Interconnection Agreement, along with a non-binding good faith cost estimate and construction schedule for such upgrades, within twenty (20) Business Days after the Area EPS Operator receives such an election or ii) a facilities study agreement pursuant to section 4.4.
- 3.2.3 If the proposed interconnection fails the screens, and the Area EPS Operator does not or cannot determine from the Initial Review that the DER may nevertheless be interconnected consistent with safety, reliability, and power quality standards unless the Interconnection Customer is willing to consider minor modifications or further study, the Area EPS Operator shall provide the Interconnection Customer the opportunity to attend a customer options meeting.

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<sup>1</sup> This screen does not include substation voltage regulators.

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3.3 Customer Options Meeting

If the Area EPS Operator determines the Interconnection Application cannot be approved without either 1) supplemental review, other additional studies or actions; or 2) incurring significant cost to address safety, reliability, or power quality problems, the Area EPS Operator shall notify the Interconnection Customer of that determination and provide copies of all directly pertinent data and analyses underlying its conclusion, subject to confidentiality provisions in Section 5.9 and where applicable limited by privacy rules. Within ten (10) Business Days of the Area EPS Operator's determination, unless mutual agreement, the Area EPS Operator and Interconnection Customer shall schedule a customer options meeting with the Interconnection Customer to review possible facility modifications, screen analysis and related results to determine what further steps are needed to permit the DER to be connected safely and reliably. At the time of notification of the Area EPS Operator's determination, or at the customer options meeting, the Area EPS Operator shall:

- 3.3.1 Offer to perform a supplemental review in accordance with section 3.4 and provide a non-binding good faith estimate of the costs of such review; or
- 3.3.2 Obtain the Interconnection Customer's agreement to continue evaluating the Interconnection Application under the Section 4 Study Process.

3.4 Supplemental Review

- 3.4.1 To accept the offer of a supplemental review, the Interconnection Customer shall agree in writing and submit a deposit for the estimated costs of the supplemental review in the amount of the Area EPS Operator's good faith estimate of the costs of such review, both within fifteen (15) Business Days of the offer. If the written agreement and deposit have not been received by the Area EPS Operator within that timeframe, the Interconnection Application shall continue to be evaluated under the Section 4 Study Process unless it is withdrawn by the Interconnection Customer.
- 3.4.2 The Interconnection Customer may specify with the written agreement and deposit the order in which the Area EPS Operator will complete the supplemental review screens. The order specified shall be at the level of sections 3.4.4.1, 3.4.4.2, and 3.4.4.3.
- 3.4.3 The Interconnection Customer shall be responsible for the Area EPS Operator's actual costs for conducting the supplemental review. The Interconnection Customer shall pay any review costs that exceed the deposit within twenty (20) Business Days of receipt of the invoice or resolution of any dispute. If the deposit exceeds the invoiced costs, the Area EPS Operator will return such excess within twenty (20) Business Days of the invoice without interest.

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3.4.4 Within thirty (30) Business Days following receipt of the deposit for a supplemental review, the Area EPS Operator shall: 1) perform a supplemental review using the screens set forth below; 2) notify in writing the Interconnection Customer of the results; and 3) include with the notification copies of the analysis and data underlying the Area EPS Operator's determinations under the screens. Unless the Interconnection Customer provided instructions for how to respond to the failure of any of the supplemental review screens below at the time the Interconnection Customer accepted the offer of supplemental review, the Area EPS Operator shall notify the Interconnection Customer following the failure of any of the screens, or if it is unable to perform the screen in this section within two (2) Business Days of making such determination to obtain the Interconnection Customer's permission to: 1) continue evaluating the proposed interconnection under this section 3.4.4; 2) terminate the supplemental review and continue evaluating the DER under Section 4 Study Process; or 3) terminate the supplemental review upon withdrawal of the Interconnection Application by the Interconnection Customer. The Interconnection Customer shall respond with its choice within five (5) Business Days of notification from the Area EPS Operator.

3.4.4.1 Minimum Load Screen: Where 12 months of line section minimum load data (including onsite load but not station service load served by the proposed DER) are available, can be calculated, can be estimated from existing data, or determined from a power flow model, the aggregate DER capacity on the line section is less than 100% of the minimum load for all line sections bounded by automatic sectionalizing devices upstream of the proposed DER. If minimum load data is not available, or cannot be calculated, estimated or determined, the Area EPS Operator shall include the reason(s) that it is unable to calculate, estimate or determine minimum load in its supplemental review results notification under section 3.4.4.

3.4.4.1.1 The type of generation used by the proposed DER will be taken into account when calculating, estimating, or determining circuit or line section minimum load relevant for the application of screen 3.4.4.1. Solar photovoltaic (PV) generation systems with no battery storage use daytime minimum load (i.e., 10 a.m. to 4 p.m. for fixed panel systems and 8 a.m. to 6 p.m. for PV systems utilizing tracking systems), while all other generation uses absolute minimum load.

3.4.4.1.2 When this screen is being applied to a DER that serves some station service load, only the net injection into the Area EPS Operator's electric system will be considered as part of the aggregate generation.

3.4.4.1.3 Area EPS Operator will not consider as part of the aggregate generation for purposes of this screen DER capacity known to be already reflected in the minimum load data.

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- 3.4.4.2 Voltage and Power Quality Screen: In aggregate with existing generation on the line section: (1) the voltage regulation on the line section can be maintained in compliance with relevant requirements under all system conditions; (2) the voltage fluctuation is within acceptable limits as defined by Institute of Electrical and Electronics Engineers (IEEE) Standard 1453, or utility practice similar to IEEE Standard 1453; and (3) the harmonic levels meet IEEE Standard 519 limits.
- 3.4.4.3 Safety and Reliability Screen: The location of the proposed DER and the aggregate generation capacity on the line section do not create impacts to safety or reliability that cannot be adequately addressed without application of the Study Process. The Area EPS Operator shall give due consideration to the following and other factors in determining potential impacts to safety and reliability in applying this screen.
- 3.4.4.3.1 Whether the line section has significant minimum loading levels dominated by a small number of customers (e.g., several large commercial customers).
- 3.4.4.3.2 Whether the loading along the line section is uniform or even.
- 3.4.4.3.3 Whether the proposed DER is located in close proximity to the substation (i.e., less than 2.5 electrical circuit miles), and whether the line section from the substation to the Point of Common Coupling is a Main line rated for normal and emergency ampacity.
- 3.4.4.3.4 Whether the proposed DER incorporates a time delay function to prevent reconnection of the generator to the system until system voltage and frequency are within normal limits for a prescribed time.
- 3.4.4.3.5 Whether operational flexibility is reduced by the proposed DER, such that transfer of the line section(s) of the DER to a neighboring distribution circuit/substation may trigger overloads or voltage issues.
- 3.4.4.3.6 Whether the proposed DER employs equipment or systems certified by a recognized standards organization to address technical issues such as, but not limited to, islanding, reverse power flow, or voltage quality.
- 3.4.5 If the proposed interconnection passes the supplemental screens in sections 3.4.4.1, 3.4.4.2, and 3.4.4.3 above, or if the proposed interconnection fails the screens, but the Area EPS Operator determines that the DER may nevertheless be interconnected consistent with safety, reliability, and power quality standards, the interconnection shall proceed as follows:

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- 3.4.5.1 If the proposed interconnection passes the supplemental screens in sections 3.4.4.1, 3.4.4.2, and 3.4.4.3 above and does not require construction of facilities by the Area EPS Operator on its own system, the Area EPS Operator shall provide the Interconnection Customer an executable Interconnection Agreement within five (5) Business Days.
- 3.4.5.2 If the proposed interconnection requires construction of any facilities, the Area EPS Operator shall notify the Interconnection Customer of such requirement when it provides the supplemental review results and either: 1) provide a good faith cost estimate; or 2) require a facilities study pursuant to 4.4.1. Within five (5) Business Days, the Interconnection Customer shall inform the Area EPS Operator if the Interconnection Customer elects to proceed with the proposed interconnection. If the Interconnection Customer makes such an election, the Area EPS Operator shall either provide: i) an Interconnection Agreement, along with a non-binding good faith cost estimate and construction schedule for such upgrades, within twenty (20) Business Days after the Area EPS Operator receives such an election or ii) a facilities study agreement pursuant to section 4.4.
- 3.4.6 If the proposed interconnection fails the screens, and the Area EPS Operator does not or cannot determine that the DER may nevertheless be interconnected consistent with safety, reliability, and power quality standards unless the Interconnection Customer is willing to consider minor modifications or further study, the Area EPS Operator shall provide the Interconnection Customer the option of commencing the Section 4 Study Process. If the Interconnection Customer wishes to proceed it shall notify the Area EPS Operator within fifteen (15) Business Days to retain its queue position.

#### **Section 4. Study Process**

##### 4.1 Applicability

The Study Process shall be used by an Interconnection Customer proposing to interconnect its DER with the Area EPS Operator's Distribution System if the DER 1) is not eligible for Section 2 Simplified Process review or Section 3 Fast Track Process review, or 2) did not pass the Fast Track Process or the Simplified Process. The application fee described in section 1.5.1.3 shall be applied to the application completeness review costs and the first deposit required in this section.

##### 4.2 Scoping Meeting

- 4.2.1 A scoping meeting shall be held within ten (10) Business Days after the Interconnection Application is deemed complete or, if applicable, the Fast Track Process or Simplified Process has been completed and the Interconnection Customer has elected to continue with the Study Process, or as mutually agreed to by the Parties. The Area EPS Operator and the Interconnection Customer will bring to the meeting personnel, including system engineers and other resources, as may be reasonably required to accomplish the purpose of the meeting.

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- 4.2.2 The purpose of the scoping meeting is to discuss the Interconnection Application and review existing study results and relevant underlying data and assumptions relevant to the Interconnection Application. The Parties shall further discuss whether the Area EPS Operator should perform a system impact study or studies, or proceed directly to a facilities study or an Interconnection Agreement. If the Area EPS Operator determines there is no potential for Transmission System or Distribution System adverse system impacts, the Interconnection Application shall proceed directly to a facilities study or an executable Interconnection Agreement, as agreed to by the Parties.
- 4.2.3 The scoping meeting may be omitted by mutual agreement.
- 4.3 System Impact Study
- 4.3.1 A system impact study shall identify and detail the electric system impacts that would result if the proposed DER(s) were interconnected without project modifications or electric system modifications, and to study potential impacts, including but not limited to those identified in the scoping meeting. A system impact study shall evaluate the impact of the proposed interconnection on the reliability of the electric system.
- 4.3.2 If the Parties agree at the scoping meeting that a system impact study should be performed, the Area EPS Operator shall provide the Interconnection Customer, as soon as possible, but not later than five (5) Business Days after the scoping meeting, a system impact study agreement as defined in 4.3.3.
- If the scoping meeting is omitted by mutual agreement or, if applicable, the Simplified Process or Fast Track Process has been completed and the Interconnection Customer has elected to continue with the Study Process, and a system impact study is required, the Area EPS Operator shall provide the Interconnection Customer a system impact study agreement within ten (10) Business Days.
- 4.3.3 The system impact study agreement (Attachment 6) shall include an outline of the scope of the study and a non-binding good faith estimate of the cost to perform the study. If applicable, the agreement shall list any additional and reasonable technical data on the DER needed to perform the system impact study. The scope of and cost responsibilities for a system impact study are described in the attached system impact study agreement. A deposit of the good faith estimated costs for each system impact study shall be provided by the Interconnection Customer when it returns the study agreements. The additional and reasonable technical data, if applicable, shall be returned with the system impact agreement. Upon Interconnection Customer request, the Area EPS Operator shall grant a time frame extension as described in 5.2.3 if additional technical data is requested.

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- 4.3.4 In order to remain in consideration for interconnection, an Interconnection Customer who has requested a System Impact Study must return the executed system impact study agreement and pay the required study deposit within twenty (20) Business Days.
- 4.3.5 A System Impact Study shall be completed within thirty (30) Business Days after the system impact study agreement is signed by the Parties and delivered with deposit to the Area EPS Operator. The results and, if necessary, facilities study agreement shall be delivered to the Interconnection Customer within five (5) Business Days of completion of the System Impact Study. Upon request, the Area EPS Operator shall provide Interconnection Customer supporting documentation and workpapers developed in the preparation of the system impact study, subject to confidentiality arrangements consistent with these procedures and the System Impact Study agreement.
- 4.3.6 In instances where the System Impact Study shows potential for Transmission System adverse system impacts, within five (5) Business Days following the identification of such impacts by the Area EPS Operator, the Area EPS Operator shall coordinate with the appropriate Transmission Provider to have the necessary studies completed to determine if the DER causes any adverse transmission impacts.
- 4.3.7 In order to remain in consideration for interconnection, an Interconnection Customer must return the executed Transmission System impact study agreement within fifteen (15) Business Days.
- 4.3.8 A Transmission System impact study, if required, shall be completed and the results transmitted to the Interconnection Customer in as timely a manner as possible after the transmission system impact study agreement is signed by the Parties. The Area EPS Operator shall be responsible for coordination with the Transmission Provider as needed. Affected Systems shall participate in the study and provide all information necessary to prepare the study.

4.4 Facilities Study

- 4.4.1 If construction of facilities is required, a facilities study may be necessary to specify and estimate the cost of the equipment, engineering, procurement and construction work identified in Initial Review, Supplemental Review, or the Study Process to provide interconnection and interoperability of the DER with the Area EPS Operator's Distribution System as required by Minnesota Technical Requirements. Interconnection Applications reviewed in the Simplified Process and Fast Track Process that require construction of facilities may be eligible, upon determination of the Area EPS Operator, to forego a facilities study as described in section 3.2.2.2.

The Area EPS Operator shall provide the Interconnection Customer a facilities study agreement in tandem with the results of the Interconnection Customer's system impact study or, if required, Transmission System impact study.

If no system impact study is required, but a facilities study is required, then the Area EPS Operator shall provide as soon as possible, but not later than five (5) Business Days after the scoping meeting, a facilities study agreement.

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If the scoping meeting is omitted by mutual agreement and no system impact study is required, but a facilities study is required, the Area EPS Operator shall provide the Interconnection Customer a facilities study agreement within ten (10) Business Days after the Interconnection Application is deemed complete and, if applicable, the Simplified Process or Fast Track Process has been completed.

- 4.4.2 The facilities study agreement (Attachment 7) shall be accompanied by an outline of the scope of the study and a non-binding good faith estimate of the cost to perform the facilities study. The scope of and cost responsibilities for the facilities study are described in the attached facilities study agreement. A deposit of the good faith estimated costs for the facilities study shall be provided by the Interconnection Customer at the time it returns the study agreement.
- 4.4.3 In order to remain under consideration for interconnection, the Interconnection Customer must return the executed facilities study agreement and pay the required study deposit within fifteen (15) Business Days.
- 4.4.4 The facilities study shall specify and estimate the cost of the equipment, engineering, procurement and construction work (including overheads) needed to implement the conclusions of the system impact study(s).
- 4.4.5 Design for any required Interconnection Facilities and/or Upgrades shall be performed under the Facilities Study Agreement unless the Interconnection Application is processed under the provisions of section 3.2.2.2. However, in the event that the Interconnection Customer did not provide to the Area EPS Operator all required Conditional Use Permits at the time of entering into the Facilities Study Agreement, any such Design and/or Upgrades by the Area EPS Operator may be delayed until after the Interconnection Customer has provided to the Area EPS Operator all required Conditional Use Permits or provided a final design. The information in the Conditional Use Permits, or changes to the design, may result in significant modifications to the planned design and/or Upgrades. The Interconnection Customer may send to the Area EPS Operator a redacted version of the Conditional Use Permit to ensure confidentiality, but any and all information that the Area EPS Operator would reasonably need to perform an accurate Facilities Study shall not be redacted. If necessary to comply with these requirements, a confidential version of the Conditional Use Permit may be provided to the Area EPS Operator, with the confidential information being clearly marked and subject to the Confidentiality provisions in 5.9. The Area EPS Operator may contract with consultants to perform activities required under the facilities study agreement. The Interconnection Customer and the Area EPS Operator may agree to allow the Interconnection Customer to separately arrange for the design of some of the Interconnection Facilities. In such cases, facilities design will be reviewed and/or modified prior to acceptance by the Area EPS Operator, under the provisions of the Facilities Study Agreement. If the Parties agree to separately arrange for design and construction, and provided security and confidentiality requirements can be met, the Area EPS Operator shall make sufficient information available to the Interconnection Customer in accordance with confidentiality and critical infrastructure requirements to permit the Interconnection Customer to obtain an independent design and cost estimate for any necessary facilities.

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- 4.4.6 In cases where Upgrades are required, the facilities study must be completed within forty-five (45) Business Days of the receipt of the executed facilities study agreement and deposit.
- 4.4.7 In cases where no Upgrades are necessary, and the required facilities are limited to Interconnection Facilities, the facilities study must be completed within thirty (30) Business Days of the receipt of the executed facilities study agreement and deposit.
- 4.4.8 Once the facilities study is completed, a draft facilities study report shall be prepared and transmitted to the Interconnection Customer. Upon request, the Area EPS Operator shall provide Interconnection Customer supporting documentation and workpapers developed in the preparation of the Interconnection Facilities Study, subject to confidentiality arrangements consistent with these procedures and the facilities study agreement.
- 4.4.9 Within ten (10) Business Days of providing a draft facilities study report to Interconnection Customer, the Area EPS Operator and Interconnection Customer shall meet to discuss the results of the facilities study unless the meeting is omitted by mutual agreement.
- 4.4.10 Interconnection Customer may, within twenty (20) Business Days after receipt of the draft report, provide written comments to the Area EPS Operator, which the Area EPS Operator shall address in the final report.
- 4.4.11 The Area EPS Operator shall issue the final facilities study report within fifteen (15) Business Days of receiving Interconnection Customer's comments or promptly upon receiving Interconnection Customer's statement that it will not provide comments. The Area EPS Operator may reasonably extend the time frame upon notice to the Interconnection Customer if the Interconnection Customer's comments require additional analyses or lead to significant modifications by the Area EPS Operator prior to issuance of the final facilities study report.

**Section 5. Provisions that Apply to All Interconnection Applications**

5.1 Interconnection Agreement

- 5.1.1 The Area EPS Operator shall provide the Interconnection Customer an executable Interconnection Agreement as described in section 1.1.5 within five (5) Business Days after the completion of all required review or study of the Interconnection Application unless sections 3.2.2.2, 3.4.5.1, 3.4.5.2 or 4.2.2 applies.

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5.1.2 After receiving an Interconnection Agreement from the Area EPS Operator, the Interconnection Customer shall have thirty (30) Business Days to sign and return the interconnection agreement. If the Interconnection Customer does not sign the interconnection agreement, request an extension pursuant to these procedures, or ask the Area EPS Operator to file an unexecuted Interconnection Agreement with the Commission within thirty (30) Business Days, the Interconnection Application shall be deemed withdrawn. The Area EPS Operator shall provide the Interconnection Customer a fully executed Interconnection Agreement within five (5) Business Days after receiving a signed interconnection agreement from the Interconnection Customer. After the Interconnection Agreement is signed by the Parties, the interconnection of the DER shall proceed under the provisions of the Interconnection Agreement, except to the extent these procedures remain applicable, including, but not limited to, sections 5.5, 5.6, and 5.7.

5.2 Time Frames and Extensions

5.2.1 Response or Action Timeframes: Unless otherwise stated, all time frames are measured in Business Days. For purposes of measuring these time intervals and consistent with Minn. Stat. §645.15, the time shall be computed so as to exclude the first and include the last day of the prescribed or fixed period or duration of time. Any communication sent or received after 4:30 p.m. (local time in Saint Paul, Minnesota) or on a Saturday, Sunday, or Holiday shall be considered to have been sent on the next Business Day.

5.2.2 The Area EPS Operator shall make Reasonable Efforts to meet all time frames provided in these procedures. If the Area EPS Operator cannot meet a deadline provided herein, it must notify the Interconnection Customer in writing within three (3) Business Days after the deadline to explain the reason for the failure to meet the deadline, and provide an estimated time by which it will complete the applicable interconnection procedure in the process.

5.2.3 For applicable time frames described in these procedures, the Interconnection Customer may request in writing one extension equivalent to half of the time originally allotted (e.g., ten (10) Business Days for a twenty (20) Business Days original time frame) which the Area EPS Operator may not unreasonably refuse. No further extensions for the applicable time frame shall be granted absent a Force Majeure Event or other similarly extraordinary circumstances.

5.3 Disputes

5.3.1 The Parties agree to attempt to resolve all disputes arising out of the interconnection process and associated study and Interconnection Agreements according to the provisions of this article and Minnesota Administrative Rules 7829.1500-7829.1900. More information on the Commission's Consumer Affairs Office dispute resolution services is available on the Commission's website: <https://mn.gov/puc/consumers/help/complaint/>

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- 5.3.2 Prior to a written Notice of Dispute, the Party shall contact the other Party and raise the issue and the relief sought in an attempt to resolve the issue immediately.
- 5.3.3 In the event of a dispute, the disputing Party shall provide the other Party a written Notice of Dispute containing the relevant known facts pertaining to the dispute, the specific dispute and the relief sought, and express notice by the disputing Party that it is invoking the procedures under this article. The Interconnection Customer may utilize the Commission's Consumer Affairs Office's complaint/inquiry form and Informal Complaint dispute resolution process to assist with the written Notice of Dispute. The notice shall be sent to the non-disputing Party's email address and physical address set forth in the Interconnection Agreement or Interconnection Application, if there is no Interconnection Agreement. If the Interconnection Customer chooses not to utilize the Commission's Consumer Affairs Office dispute resolution process, the Interconnection Customer shall provide an informational electronic copy of the Notice of Dispute to the Consumer Affairs Office at the Commission at [consumer.puc@state.mn.us](mailto:consumer.puc@state.mn.us).
- 5.3.4 The non-disputing Party shall acknowledge the notice within three (3) Business Days of its receipt and identify a representative with the authority to make decisions for the non-disputing Party with respect to the dispute.
- 5.3.5 The non-disputing Party shall provide the disputing Party with relevant regulatory and/or technical details and analysis regarding the Area EPS Operator interconnection requirements under dispute within ten (10) Business Days of the date of the Notice of Dispute. Within twenty (20) Business Days of the date of the Notice of Dispute, the Parties' authorized representatives will be required to meet and confer to try to resolve the dispute. Parties shall operate in good faith and use best efforts to resolve the dispute.
- 5.3.6 If a resolution is not reached in the thirty (30) Business Days from the date of the notice described in section 5.3.3, the Parties may 1) if mutually agreed, continue negotiations for up to an additional twenty (20) Business Days; or 2) either Party may request the Commission's Consumer Affairs Office provide mediation in an attempt to resolve the dispute within twenty (20) Business Days with the opportunity to extend this timeline upon mutual agreement. Alternatively, both Parties by mutual agreement may request mediation from an outside third-party mediator with costs to be shared equally between the Parties.
- 5.3.7 If the results of the mediation are not accepted by one or more Parties and there is still disagreement, the dispute shall proceed to the Commission's Formal Complaint process as described in Minn. Rules 7829.1700-1900 unless mutually agreed to continue with informal dispute resolution.
- 5.3.8 At any time, either Party may file a complaint before the Commission pursuant to Minn. Stat. §216B.164, if applicable, and Commission rules outlined in Minn. Rules Ch. 7829.

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5.4 Interconnection Metering

Any metering requirements necessitated by the use of the DER shall be installed at the Interconnection Customer's expense. The Interconnection Customer is responsible for replacement meter costs not covered in the Interconnection Customer's general customer charge. The Area EPS Operator may charge Interconnection Customers an ongoing metering-related charge for an estimate of ongoing metering-related costs specifically demonstrated and approved in tariff regardless of the choice of meter payment. The Area EPS Operator shall offer the Interconnection Customer the following payment options:

- 5.4.1 Pay upfront the cost of metering requirements for the DER. Any maintenance or replacement costs may be billed separately to the Interconnection Customer after these costs are incurred.
- 5.4.2 Pay a tariffed monthly charge for the actual, DER-related meter and metering-related costs. If no tariffed monthly charge is an exact match, then the closest applicable tariffed monthly charge shall apply; unless metering requirements are so different that individual case basis pricing should apply.

5.5 Non-Warranty

The Area EPS Operator does not give any warranty, expressed or implied, as to the adequacy, safety, or other characteristics of any structures, equipment, wires, appliances or devices owned, operated, installed or maintained by the Interconnection Customer, including without limitation the DER and any structures, equipment, wires, appliances or devices not owned, operated or maintained by the Area EPS Operator.

5.6 Design, Procurement, Installation and Construction of Interconnection Facilities and Upgrades

- 5.6.1 The Interconnection Customer shall pay for the actual cost of the Interconnection Facilities and Distribution Upgrades as described and itemized pursuant to the Interconnection Agreement and its attachments. If Network Upgrades are required, the actual cost of the Network Upgrades, including overheads, shall be borne by the Interconnection Customer pursuant to the Transmission Provider and associated agreement(s). As indicated in the Interconnection Agreement, the Area EPS Operator shall provide a good faith cost estimate, including overheads, for the purchase and construction of the Interconnection Facilities, Distribution Upgrades, and Network Upgrades, and provide a detailed itemization of such costs.
- 5.6.2 The Interconnection Customer and the Area EPS Operator shall agree on milestones for which each Party is responsible and list them in an attachment to the Interconnection Agreement. To the greatest extent possible, the Parties will identify all design, procurement, installation and construction requirements associated with a project, and clear associated timelines, at the beginning of the design, procurement, installation and construction phase, or as early within the process as possible.

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- 5.6.3 A Party's obligations under this provision may be extended by agreement. If a Party anticipates that it will be unable to meet a milestone for any reason other than a Force Majeure Event, it shall immediately notify the other Party of the reason(s) for not meeting the milestone and 1) propose the earliest reasonable alternate date by which it can attain this and future milestones, and 2) request appropriate amendments to the Interconnection Agreement and its attachments. The Party affected by the failure to meet a milestone shall not unreasonably withhold agreement to such an amendment unless 1) it will suffer significant uncompensated economic or operational harm from the delay, 2) attainment of the same milestone has previously been delayed, or 3) it has reason to believe that the delay in meeting the milestone is intentional or unwarranted notwithstanding the circumstances explained by the Party proposing the amendment. If the Party affected by the failure to meet a milestone disputes the proposed extension, the affected Party may pursue dispute resolution pursuant to 5.3.
- 5.6.4 At the option of the Area EPS Operator, either the "Traditional Security" or the "Modified Security" method shall be used.
- 5.6.4.1 Under the Traditional Security method, the Interconnection Customer shall provide reasonable adequate assurances of credit, including a letter of credit or personal guaranty of payment and performance from a creditworthy entity acceptable under the Area EPS Operator credit policy and procedures for the unpaid balance of the estimated amount shown in Interconnection Agreement for the totality of all anticipated work or expense incurred by the Area EPS Operator associated with the Interconnection Application. The payment for these estimated costs shall be as follows:
- 5.6.4.1.1 1/3 of estimated costs shall be due no later than when the Interconnection Customer signs the Interconnection Agreement.
- 5.6.4.1.2 An additional 1/3 of estimated costs shall be due prior to initial energization of the Generation System with the Area EPS Operator.
- 5.6.4.1.3 Remainder of actual costs, incurred by Area EPS Operator, shall be due within 30 days from the date the bill is mailed by the Area EPS Operator after project completion.
- 5.6.4.2 Under the Modified Security method, at least twenty (20) Business Days prior to the commencement of the design, procurement, installation, or construction of a discrete portion of the Area EPS Operator's Interconnection Facilities and Upgrades, the Interconnection Customer shall provide the Area EPS Operator, at the Interconnection Customer's option, a guarantee, letter of credit or other form of security that is reasonably acceptable to the Area EPS Operator and is consistent with the Minnesota Uniform Commercial Code. Such security for payment shall be in an amount sufficient to cover the costs for constructing, designing, procuring, and installing the applicable portion of the Area EPS Operator's Interconnection Facilities and Upgrades and shall be reduced on a dollar-for-dollar basis for payments made to the Area EPS Operator under the Interconnection Agreement during its term.

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- 5.6.4.3 The guarantee must be made by an entity that meets the creditworthiness requirements of the Area EPS Operator, and contain terms and conditions that guarantee payment of any amount that may be due from the Interconnection Customer, up to an agreed-to maximum amount.
- 5.6.4.4 The letter of credit must be issued by a financial institution or insurer reasonably acceptable to the Area EPS Operator and must specify a reasonable expiration date not sooner than sixty (60) Business Days (three calendar months) after the due date of the final accounting report and bill described in 5.6.6.
- 5.6.5 The Area EPS Operator shall bill the Interconnection Customer for the design, engineering, construction, and procurement costs of Interconnection Facilities and Upgrades described in the Interconnection Agreement on a monthly basis, or as otherwise agreed by the Parties in the interconnection agreement. The Interconnection Customer shall pay each bill within twenty-one (21) Business Days of receipt, or as otherwise agreed to by the Parties in the interconnection agreement.
- 5.6.6 Within eighty (80) Business Days (approximately four (4) calendar months) of completing the construction and installation of the Area EPS Operator's Interconnection Facilities and/or Upgrades described in the interconnection agreement and its attachments, the Area EPS Operator shall provide the Interconnection Customer with a final accounting report of any difference between 1) the Interconnection Customer's cost responsibility for the actual cost of such facilities or Upgrades, and 2) the Interconnection Customer's previous aggregate payments to the Area EPS Operator for such facilities or Upgrades. If the Interconnection Customer's cost responsibility exceeds its previous aggregate payments, the Area EPS Operator shall invoice the Interconnection Customer for the amount due and the Interconnection Customer shall make payment to the Area EPS Operator within twenty (20) Business Days. If the Interconnection Customer's previous aggregate payments exceed its cost responsibility under the Interconnection Agreement, the Area EPS Operator shall refund to the Interconnection Customer an amount equal to the difference within twenty (20) Business Days of the final accounting report.
- 5.7 Inspection, Testing, Commissioning and Authorization
- 5.7.1 The Interconnection Customer shall arrange for the inspection and testing of the DER and the Customer's Interconnection Facilities prior to interconnection pursuant to Minnesota Interconnection Technical Requirements. Commissioning tests of the Interconnection Customer's installed equipment shall be performed pursuant to applicable codes and standards pursuant to Minnesota Technical Requirements.

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5.7.2 The Interconnection Customer shall notify the Area EPS Operator of testing and inspection no fewer than five (5) Business Days in advance, or as may be agreed to by the Parties. Testing and inspection shall occur on a Business Day. The Area EPS Operator may, at its own expense if not required in Minnesota Interconnection Technical Requirements, send qualified personnel to the DER site to inspect the interconnection and witness the testing. The Interconnection Customer shall provide the Area EPS Operator a written results report.

5.7.3 The Area EPS Operator shall provide the Interconnection Customer written acknowledgment that it has received the Interconnection Customer's written test report. Such written acknowledgment shall not be deemed to be or construed as any representation, assurance, guarantee, or warranty by the Area EPS Operator of the safety, durability, suitability, or reliability of the DER or any associated control, protective, and safety devices owned or controlled by the Interconnection Customer or the quality of power produced by the DER.

5.8 Authorization Required Prior to Parallel Operation

5.8.1 Area EPS Operator shall use Reasonable Efforts to list applicable parallel operation requirements by attaching the MN Technical Requirements to the Interconnection Agreement. Additionally, the Area EPS Operator shall notify the Interconnection Customer of any changes to these requirements as soon as they are known. The Area EPS Operator shall make Reasonable Efforts to cooperate with the Interconnection Customer in meeting requirements necessary for the Interconnection Customer to commence parallel operations by the in-service date.

5.8.2 The Interconnection Customer shall not operate its DER in parallel with the Area EPS Operator's Distribution System without prior written permission to operate authorization from the Area EPS Operator. The Area EPS Operator shall provide such authorization within three (3) Business Days from when the Area EPS Operator receives notification that the Interconnection Customer has complied with all applicable parallel operation requirements and all payments for issued bills under the Interconnection Agreement, System Impact Study Agreement, Facilities Study Agreement or Section 5.6.5 above that are past due have been paid in full. Such authorization shall not be unreasonably withheld, conditioned, or delayed.

5.9 Confidentiality

5.9.1 Confidential Information shall mean any confidential and/or proprietary information provided by one Party to the other Party that is clearly marked or otherwise designated "Confidential." For purposes of these procedures, design, operating specifications, and metering data provided by the Interconnection Customer may be deemed Confidential Information regardless of whether it is clearly marked or otherwise designated as such. If requested by either Party, the other Party shall provide in writing the basis for asserting that the information warrants confidential treatment. Parties providing a Governmental Authority trade secret, privileged or otherwise not public or nonpublic data under the Minnesota Government Data Practices Act, Minnesota Statutes Chapter 13, shall identify such data consistent with the Commission's September 1, 1999 Revised Procedures for Handling Trade Secret and Privileged Data, available online at: <https://mn.gov/puc/puc-documents/#4>

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- 5.9.2 Confidential Information does not include information previously in the public domain with proper authorization, required to be publicly submitted or divulged by Governmental Authorities (after notice to the other Party and after exhausting any opportunity to oppose such publication or release), or necessary to be publicly divulged in an action to enforce these procedures. Each Party receiving Confidential Information shall hold such information in confidence and shall not disclose it to any third party nor to the public without the prior written authorization from the Party providing that information, except to fulfill obligations under these procedures, or to fulfill legal or regulatory requirements that could not otherwise be fulfilled by not making the information public.
- 5.9.2.1 Each Party shall hold in confidence and shall not disclose Confidential Information, to any person (except employees, officers, representatives and agents, who agree to be bound by this section). Confidential Information shall be clearly marked as such on each page or otherwise affirmatively identified. If a court, government agency or entity with the right, power, and authority to do so, requests or requires either Party, by subpoena, oral disposition, interrogatories, requests for production of documents, administrative order, or otherwise, to disclose Confidential Information, that Party shall provide the other Party with prompt notice of such request(s) or requirements(s) so that the other Party may seek an appropriate protective order or waive compliance with the terms of this Agreement. In the absence of a protective order or waiver the Party shall disclose such confidential information which, in the opinion of its counsel, the party is legally compelled to disclose. Each Party will use reasonable efforts to obtain reliable assurance that confidential treatment will be accorded any confidential information so furnished.
- 5.9.2.2 Critical infrastructure information or information that is deemed or otherwise designated by a Party as Critical Energy/Electric Infrastructure Information (CEII) pursuant to FERC regulation, 18 C.F.R. §388.133, as may be amended from time to time, may be subject to further protections for disclosure as required by FERC or FERC regulations or orders and the disclosing Party's CEII policies.
- 5.9.2.3 Each Party shall employ at least the same standard of care to protect Confidential Information obtained from the other Party as it employs to protect its own Confidential Information.
- 5.9.2.4 Each Party is entitled to equitable relief, by injunction or otherwise, to enforce its rights under this provision to prevent the release of Confidential Information without bond or proof of damages, and may seek other remedies available at law or in equity for breach of this provision.

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5.10 Insurance

- 5.10.1 At a minimum, the Interconnection Customer shall maintain, during the term of the Interconnection Agreement, general liability insurance, from a qualified insurance agency with a B+ or better rating by "Best" and with a combined single limit of not less than the limits described in the chart below.

Distributed Energy Resource System Size	Liability Insurance Requirement
≤ 40 kWac	\$300,000
> 40 kWac and ≤ 250 kWac	\$1,000,000
> 250 kWac and ≤ 5 MWac	\$2,000,000
> 5 MWac and ≤ 10 MWac	\$3,000,000

Such general liability insurance shall include coverage against claims for damages resulting from (i) bodily injury, including wrongful death; and (ii) property damage arising out of the Interconnection Customer's ownership and/or operation of the DER under this agreement.

- 5.10.2 The general liability insurance required shall, by endorsement to the policy or policies, (a) include the Area EPS Operator as an additional insured; (b) contain a severability of interest clause or cross-liability clause; (c) provide that the Area EPS Operator shall not by reason of its inclusion as an additional insured incur liability to the insurance carrier for the payment of premium for such insurance; and (d) provide for twenty (20) business days' written notice to the Area EPS Operator prior to cancellation, termination, alteration or material change of such insurance.
- 5.10.3 If the DER is connected to an account receiving residential service from the Area EPS Operator and its system size is less than 40kW, then the endorsements required in Section 5.10.2 shall not apply.
- 5.10.4 The Interconnection Customer shall furnish the required insurance certificates and endorsements to the Area EPS Operator prior to the initial operation of the DER. Thereafter, the Area EPS Operator shall have the right to periodically inspect or obtain a copy of the original policy or policies of insurance.
- 5.10.5 Evidence of the insurance required in Section 5.10.1 shall state that coverage provided is primary and is not excess to or contributing with any insurance or self-insurance maintained by the Area EPS Operator.

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5.10.6 If the Interconnection Customer is self-insured with an established record of self-insurance, the Interconnection Customer may comply with the following in lieu of Sections 5.10.1 - 5.10.5.

5.10.6.1 Interconnection Customer shall provide the Area EPS Operator, at least twenty (20) days prior to the date of initial operation, evidence of an acceptable plan to self-insure to a level of coverage equivalent to that required under Section 5.10.1.

5.10.6.2 If the Interconnection Customer ceases to self-insure to the level required hereunder, or if the Interconnection Customer is unable to provide continuing evidence of the ability to self-insure, the Interconnection Customer agrees to immediately obtain the coverage required under Section 5.10.1.

5.10.6.3 Failure of the Interconnection Customer or the Area EPS Operator to enforce the minimum levels of insurance does not relieve the Interconnection Customer from maintaining such levels of insurance or relieve the Interconnection Customer of any liability.

5.10.7 An Interconnection Customer's insurance requirements shall be limited to no more than an aggregate cap of \$35 million if the Interconnection Customer has multiple DER systems in the Area EPS Operator's service territory.

5.11 Comparability

The Area EPS Operator shall receive, process and analyze all Interconnection Applications in a timely manner as set forth in this document. The Area EPS Operator shall use the same Reasonable Efforts in processing and analyzing Interconnection Applications from all Interconnection Customers, whether the DER is owned or operated by the Area EPS Operator, its subsidiaries or affiliates, or others.

5.12 Record Retention

The Area EPS Operator shall maintain for three years records, subject to audit, of all Interconnection Applications received under these procedures, the times required to complete Interconnection Application approvals and disapprovals, and justification for the actions taken on the Interconnection Applications.

5.13 Coordination with Affected Systems

The Area EPS Operator shall coordinate the conduct of any studies required to determine the impact of the Interconnection Application on Affected Systems with Affected System operators and, if possible, include those results (if available) in its applicable interconnection study within the time frame specified in these procedures. The Area EPS Operator will make Reasonable Effort to include the Affected System operator(s) in all relevant meetings held with the Interconnection Customer as required by these procedures. The Interconnection Customer will cooperate with the Area EPS Operator and the Affected System operator(s) in all matters related to the conduct of studies and the determination of modifications to Affected Systems. Affected System operators shall cooperate with the Area EPS Operator and Interconnection Customer(s) with whom interconnection has been requested in all matters related to the conduct of studies and the determination of modifications to Affected Systems.

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**MINNESOTA DISTRIBUTED ENERGY RESOURCES  
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5.14 Capacity of the Distributed Energy Resource

- 5.14.1 If the Interconnection Application is for an increase in capacity for an existing DER, the Interconnection Application shall be evaluated on the basis of the new total alternating current (“AC”) capacity of the Distributed Energy Resource. The maximum capacity of a Distributed Energy Resource shall be the Aggregate Nameplate Rating or may be limited as described in 5.14.3.
- 5.14.2 An Interconnection Application for a DER that includes a single or multiple energy production devices at a site for which the Interconnection Customer seeks a single Point of Common Coupling shall be evaluated on the basis of the Aggregate Nameplate Rating of the multiple DERs unless 5.14.3 applies.
- 5.14.3 If the maximum capacity of the DER(s) is limited (e.g., through use of a control system, power relay(s), or other similar device settings or adjustments), then the Interconnection Customer must obtain the Area EPS Operator’s agreement that the manner in which the Interconnection Customer proposes to implement such a limit will effectively limit active power output so as to not adversely affect the safety and reliability of the Area EPS Operator’s system. Such agreement shall not to be unreasonably withheld. If the Area EPS Operator does not so agree, then the Interconnection Application must be withdrawn or revised. Nothing in this section shall prevent an Area EPS Operator from considering an output higher than the limited output (e.g., Aggregate Nameplate Rating), if the limitations do not provide adequate assurance, when evaluating system impacts. See Minnesota Technical Requirements for more detail.

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**Glossary of Terms**

**Affected System** – Another Area EPS Operator’s System, Transmission Owner’s Transmission System, or Transmission System connected generation which may be affected by the proposed interconnection.

**Applicant Agent** – A person designated in writing by the Interconnection Customer to represent or provide information to the Area EPS on the Interconnection Customer’s behalf throughout the interconnection process.

**Area EPS** – The electric power distribution system connected at the Point of Common Coupling.

**Area EPS Operator** – An entity that owns, controls, or operates the electric power distribution systems that are used for the provision of electric service in Minnesota. As used in this tariff, this means Northern States Power Company, a Minnesota corporation, doing business as Xcel Energy.

**Business Day** – Monday through Friday, excluding Holidays as defined by [Minn. Stat. §645.44, Subd. 5](#). See MN DIP Section 5.2.1 for more on computation of time.

**Certified Equipment** - UL 1741 listing is a common form of DER inverter certification. See MN DIP Attachment 4: Certification Codes and Standards and Attachment 5: Certification of Distributed Energy Resource Equipment.

**Confidential Information** – See MN DIP 5.9.

**Distributed Energy Resource (DER)** – A source of electric power that is not directly connected to a bulk power system. DER includes both generators and energy storage technologies capable of exporting active power to an EPS. An interconnection system or a supplemental DER device that is necessary for compliance with this standard is part of a DER. For the purpose of the MN DIP and MN DIA, the DER includes the Customer’s Interconnection Facilities but shall not include the Area EPS Operator’s Interconnection Facilities.

**Distribution System** – The Area EPS facilities which are not part of the Local EPS, Transmission System or any generation system.

**Distribution Upgrades** – The additions, modifications, and upgrades to the Distribution System at or beyond the Point of Common Coupling to facilitate interconnection of the DER and render the distribution service necessary to effect the Interconnection Customer’s connection to the Distribution System. Distribution Upgrades do not include Interconnection Facilities.

**Electric Power System (EPS)** – The facilities that deliver electric power to a load.

**Fast Track Process** – The procedure as described in Section 3 for evaluating an Interconnection Application for a DER that meets the eligibility requirements of section 3.1.

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**Force Majeure Event** – An act of God, labor disturbance, act of the public enemy, war, insurrection, riot, fire, storm or flood, explosion, breakage or accident to machinery or equipment, an order, regulation or restriction imposed by governmental, military or lawfully established civilian authorities, or another cause beyond a Party’s control. A Force Majeure Event does not include an act of negligence or intentional wrongdoing.

**Good Utility Practice** – Any of the practices, methods and acts engaged in or approved by a significant portion of the electric industry during the relevant time period, or any of the practices, methods and act which, in the exercise of reasonable judgment in light of the facts known at the time the decision was made, could have been expected to accomplish the desired result at a reasonable cost consistent with good business practices, reliability, safety and expedition. Good Utility Practice is not intended to be limited to the optimum practice, method, or act to the exclusion of all others, but rather to be acceptable practices, methods, or acts generally accepted in the region.

**Governmental Authority** – Any federal, state, local or other governmental regulatory or administrative agency, court, commission, department, board, or other governmental subdivision, legislature, rulemaking board, tribunal, or other governmental authority having jurisdiction over the Parties, their respective facilities, or the respective services they provide, and exercising or entitled to exercise any administrative, executive, police, or taxing authority or power; provided, however, that such term does not include the Interconnection Customer, the Area EPS Operator, or any Affiliate thereof. The Minnesota Public Utilities Commission is the authority governing interconnection requirements unless otherwise provided for in the Minnesota Technical Requirements.

**Interconnection Agreement** – The terms and conditions between the Area EPS Operator and Interconnection Customer (Parties). See MN DIP Section 1.1.5 for when the Uniform Statewide Contract or MN DIA applies.

**Interconnection Application** – The Interconnection Customer’s request to interconnect a new or modified, as described in MN DIP Section 1.6, DER. See Attachment 2: Simplified Application Form and Attachment 3 Interconnection Application Form.

**Interconnection Customer** – The person or entity, including the Area EPS Operator, whom will be the owner of the DER that proposes to interconnect a DER(s) with the Area EPS Operator’s Distribution System. The Interconnection Customer is responsible for ensuring the DER(s) is designed, operated and maintained in compliance with the Minnesota Technical Requirements.

**Interconnection Facilities** – The Area EPS Operator’s Interconnection Facilities and the Interconnection Customer’s Interconnection Facilities. Collectively, Interconnection Facilities include all facilities and equipment between the DER and the Point of Common Coupling, including any modification, additions or upgrades that are necessary to physically and electrically interconnect the DER to the Area EPS Operator’s System. Some examples of Customer Interconnection Facilities include: supplemental DER devices, inverters, and associated wiring and cables up to the Point of DER Connection. Some examples of Area EPS Operator Interconnection Facilities include sole use facilities; such as, line extensions, controls, relays, switches, breakers, transformers and shall not include Distribution Upgrades or Network Upgrades.

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**MINNESOTA DISTRIBUTED ENERGY RESOURCES  
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**Material Modification** – A modification to machine data, equipment configuration or to the interconnection site of the DER at any time after receiving notification by the Area EPS Operator of a complete Interconnection Application that has a material impact on the cost, timing, or design of any Interconnection Facilities or Upgrades, or a material impact on the cost, timing or design of any Interconnection Application with a later Queue Position or the safety or reliability of the Area EPS.<sup>1</sup>

**MN DIA** - The Minnesota Distributed Energy Resource Interconnection Agreement. See MN DIP Section 1.1.5 for when the Uniform Statewide Contract or MN DIA applies.

**MN DIP** – The Minnesota Distributed Energy Resource Interconnection Process. Statewide interconnection standards in this document.

**MN Technical Requirements or Minnesota Technical Requirements** – The term including all of the DER technical interconnection requirement documents for the state of Minnesota; including: 1.) Attachment 2 Distributed Generation Interconnection Requirements established in the Commission’s September 28, 2004 Order in E-999/CI-01-1023) until superseded and upon Commission approval of 2.) updated Minnesota DER Technical Interconnection and Interoperability Requirements in E-999/CI-16-521 (anticipated in late 2019.)

**Nameplate Rating** - nominal voltage (V), current (A), maximum active power (kWac), apparent power (kVA), and reactive power (kvar) at which a DER is capable of sustained operation. For a Local EPS with multiple DER units, the aggregate nameplate rating is equal to the sum of all DERs nameplate rating in the Local EPS, not including aggregate capacity limiting mechanisms such as coincidence factors, plant controller limits, etc. that may be applicable for specific cases (Aggregate Nameplate Rating). The nameplate ratings referenced in the MN DIP are alternating current nameplate DER ratings. See Section 5.14 on Capacity of the Distributed Energy Resource and Minnesota Technical Requirements.

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<sup>1</sup> A Material Modification shall include, but may not be limited to, a modification from the approved Interconnection Application that: (1) changes the physical location of the point of common coupling; such that it is likely to have an impact on technical review; (2) increases the nameplate rating or output characteristics of the Distributed Energy Resource; (3) changes or replaces generating equipment, such as generator(s), inverter(s), transformers, relaying, controls, etc., and substitutes equipment that is not like-kind substitution in certification, size, ratings, impedances, efficiencies or capabilities of the equipment; (4) changes transformer connection(s) or grounding; and/or (5) changes to a certified inverter with different specifications or different inverter control settings or configuration. A Material Modification shall not include a modification from the approved Interconnection Application that: (1) changes the ownership of a Distributed Energy Resource; (2) changes the address of the Distributed Energy Resource, so long as the physical point of common coupling remains the same; (3) changes or replaces generating equipment such as generator(s), inverter(s), solar panel(s), transformers, relaying, controls, etc. and substitutes equipment that is a like-kind substitution in certification, size, ratings, impedances, efficiencies or capabilities of the equipment; and/or (4) increases the DC/AC ratio but does not increase the maximum AC output capability of the Distributed Energy Resource in a way that is likely to have an impact on technical review.

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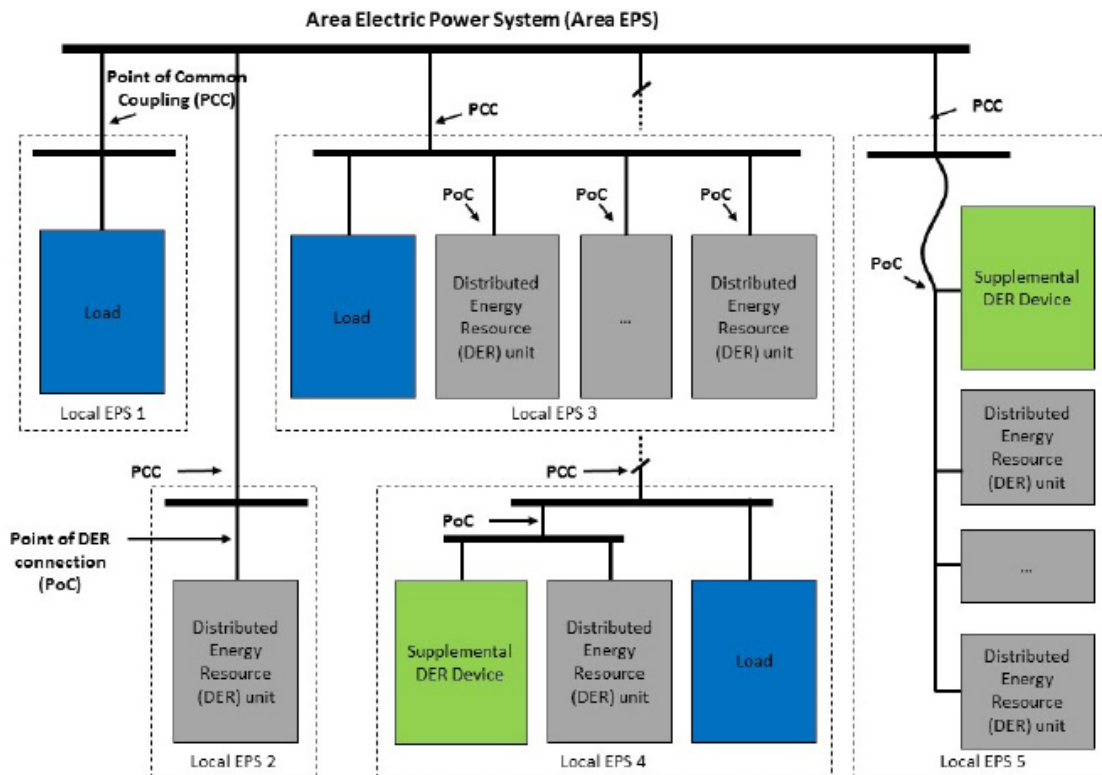
**Network Upgrades** – Additions, modifications, and upgrades to the Transmission System required at or beyond the point at which the DER interconnects with the Area EPS Operator’s System to accommodate the interconnection with the DER to the Area EPS Operator’s System. Network Upgrades do not include Distribution Upgrades.

**Notice of Dispute** – The disputing Party shall provide the other Party this written notice containing the relevant known facts pertaining to the dispute, the specific dispute and the relief sought, and express notice by the disputing Party that it is invoking the procedures under MN DIP 5.3.

**Operating Requirements** – Any operating and technical requirements that may be applicable due to the Transmission Provider’s technical requirements or Minnesota Technical Requirements, including those set forth in the MN DIA.

**Party or Parties** – The Area EPS Operator and the Interconnection Customer.

**Point of Common Coupling (PCC)** – The point where the Interconnection Facilities connect with the Area EPS Operator’s Distribution System. See figure 1. Equivalent, in most cases, to “service point” as specified by the Area EPS Operator and described in the National Electrical Code and the National Electrical Safety Code.



**Figure 1: Point of Common Coupling and Point of DER Connection**

(Source: IEEE 1547)

(Continued on Sheet No. 10-209)



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

**MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2**

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**MINNESOTA DISTRIBUTED ENERGY RESOURCES  
INTERCONNECTION PROCESS (MN DIP)  
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**Uniform Statewide Contract** – State of Minnesota's standard, uniform contract that must be applied to all qualifying new and existing interconnections between a utility and DER having capacity less than 40 kilowatts if interconnecting with a cooperative or municipal utility, and 1,000 kilowatts if interconnecting with a public utility. ([Minn. Rules 7835.9910](#))

**Upgrades** – The required additions and modifications to the Area EPS Operator's Transmission or Distribution System at or beyond the Point of Interconnection. Upgrades may be Network Upgrades or Distribution Upgrades. Upgrades do not include Interconnection Facilities.

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(Continued on Sheet No. 10-211)

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**MINNESOTA DISTRIBUTED ENERGY RESOURCES  
INTERCONNECTION PROCESS (MN DIP)  
(Continued)**

Section No. 10  
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**Attachment 1: Pre-Application Report Request Form**

Requests for an Interconnection Pre-Application Report shall include the information identified in Sections 1.4.1.1 through 1.4.1.8 of the Minnesota Distributed Energy Resource Interconnection Process (MN DIP) (and as provided in the fields below) to clearly and sufficiently identify the location of the proposed Point of Common Coupling and relevant project details.

Additionally, a non-refundable processing fee of \$300 is required as specified in Section 1.4.1 of the MN DIP.

Upon receipt of a complete Request Form (including site map) and processing fee, the Area EPS Operator shall provide a report containing as much of the data described in Section 1.4.2 as is pre-existing and available within 15 business days. A Pre-Application Report request does not obligate the Area EPS Operator to conduct a study or other analysis of the proposed project if data is not available.

1. Requestor Contact Information:

Name: \_\_\_\_\_  
Company Name (if applicable): \_\_\_\_\_  
Street Address: \_\_\_\_\_  
City/State/Zip: \_\_\_\_\_  
Phone Number: \_\_\_\_\_  
Email Address: \_\_\_\_\_

2. Project Information:

a) Project Name: \_\_\_\_\_

b) Planned Equipment:

DER Nameplate Rating: \_\_\_\_\_ kW  
DER Type: Inverter based Other \_\_\_\_\_  
DER Number of Phases: Single Three  
Service Voltage (120/240 V, 277/480 V, etc.) : \_\_\_\_\_ V  
Stand-alone Generator (no onsite load)? Yes No  
Existing DER? Yes No  
Location of Existing DER (include county):  
\_\_\_\_\_

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(Continued on Sheet No. 10-212)

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**MINNESOTA DISTRIBUTED ENERGY RESOURCES  
INTERCONNECTION PROCESS (MN DIP)  
(Continued)**

Section No. 10  
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c) Proposed Point of Common Coupling:

Note: The proposed Point of Common Coupling shall be defined by all or some combination of the below information, enough to clearly identify the location of the Point of Common Coupling.

Street Address: \_\_\_\_\_

City/State/Zip Code: \_\_\_\_\_

County: \_\_\_\_\_

Cross streets: \_\_\_\_\_

Latitude (in degrees/minutes/seconds or 6 decimal places): \_\_\_\_\_

Longitude: \_\_\_\_\_

Meter number: \_\_\_\_\_

Utility equipment number (e.g. pole number): \_\_\_\_\_

Other identifying information: \_\_\_\_\_

d) An attached Site Map is required that shows the following:

- True north
- Proposed project location, including general area of project
- Proposed service point location
- Major roads, streets and/or highways

3. Requestor Signature:

I understand that the confidentiality provisions of MN DIP Section 5.9 apply to the contents of the Pre-Application Report. The MN DIP Section 5.9, states in part as follows:

*"Each Party shall hold in confidence and shall not disclose Confidential Information, to any person (except employees, officers, representatives and agents, who agree to be bound by this section). Confidential Information shall be clearly marked as such on each page or otherwise affirmatively identified. ... Each Party shall employ at least the same standard of care to protect Confidential Information obtained from the other Party as it employs to protect its own Confidential Information. ... Each Party is entitled to equitable relief, by injunction or otherwise, to enforce its rights under this provision to prevent the release of Confidential Information without bond or proof of damages, and may seek other remedies available at law or in equity for breach of this provision."*

I understand that 1) the existence of "Available Capacity" in no way implies that an interconnection up to this level may be completed without impacts since there are many variables studied as part of the interconnection review process, 2) the distribution system is dynamic and subject to change and 3) data provided in the Pre-Application Report may become outdated and not useful at the time of submission of the complete Interconnection Request.

Name (type or print): \_\_\_\_\_

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

Pre-Application Report requests shall be submitted with attachments to the Company through its online portal available at [www.xcelenergy.com](http://www.xcelenergy.com) or other applicable URL. Only if the online portal is unavailable submit to Distributed Energy Resources at [MNDER@xcelenergy.com](mailto:MNDER@xcelenergy.com)

Fees shall be submitted online through the online application portal or Xcel Energy, Attn: Distributed Energy Resources, at P.O.Box 59 Minneapolis MN 55440-0059.

(Continued on Sheet No. 10-213)

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**Attachment 2: Simplified Application Form**

**MINNESOTA DISTRIBUTED ENERGY RESOURCES**

**SIMPLIFIED PROCESS APPLICATION (Form Template)**

The Simplified Process is available only for certified, inverter-based Distributed Energy Resources (DER) no larger than 20 kW that meet the requirements of Attachment 4: Certification Codes and Standards and Attachment 5: Certification of Distributed Energy Resource Equipment.

This Application is deemed complete when it provides all applicable and correct information required below. The following additional information must be submitted with an application:

- Single Line Diagram       Site Plan with site owner signature if different than Interconnection Customer       Specification Sheet(s)       Insurance Document

A DER with an energy storage component must additionally complete Exhibit B - For Energy Storage.

A non-refundable processing fee of \$100 must accompany this Application.

Interconnection Customer/Owner

Name: \_\_\_\_\_

Account Number: \_\_\_\_\_ Meter Number: \_\_\_\_\_

Mailing Address: \_\_\_\_\_

Telephone: \_\_\_\_\_ Email: \_\_\_\_\_

Application Agent / Company: \_\_\_\_\_

Telephone: \_\_\_\_\_ Email: \_\_\_\_\_

Distributed Energy Resource Information

Location (if different from above): \_\_\_\_\_

The Distributed Energy Resource is a single generating unit or multiple?    Single     Multiple

The Distributed Energy Resource is or includes energy storage?     Yes (Complete Exhibit B - For Energy Storage)     No

Type:  Solar     Wind    Other: \_\_\_\_\_

Inverter Manufacturer: \_\_\_\_\_ Model: \_\_\_\_\_

\_\_\_\_\_

(Continued on Sheet No. 10-214)

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**MINNESOTA DISTRIBUTED ENERGY RESOURCES  
INTERCONNECTION PROCESS (MN DIP)  
(Continued)**

Section No. 10  
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AC Rated Nameplate Rating: \_\_\_\_\_(kWac)\_\_\_\_\_ (kVAac)      Single Phase  Three Phase

Export Capability Limited (e.g., through use of a control system, power relay(s), or other similar device settings of adjustments):      Yes  No

If yes, describe: \_\_\_\_\_

DER capacity (as described in MN DIP 5.14.3): \_\_\_\_\_ (kWac)

Is equipment certified (i.e. UL 1741 Listed)?  Yes (Certification is a Simplified Process requirement)

Installed DER System Cost (before incentives): \_\_\_\_\_

Estimated Installation Date: \_\_\_\_\_

Interconnection Customer Signature [This Section must be completed by the Customer]

The simpler Uniform Statewide Contract replaces the longer Interconnection Agreement (MN DIA) if the conditions of MN DIP 1.1.5 are met. A qualifying customer signing a Uniform Statewide Contract may elect to be additionally provided the MN DIA. Request a MN DIA?:

No       Yes

Disclaimer: The Area EPS Operator shall notify the Interconnection Customer with an opportunity to request a timeline extension (See MN DIP Section 1.8.2 and 5.2.2.) Failure by the Interconnection Customer to meet or request an extension for a timeline outlined in the MN DIP could result in a withdrawn queue position and the need to re-apply. INITIAL: \_\_\_\_\_

I designate the individual or company listed as my Application Agent to serve as my agent for the purpose of coordinating with the Area EPS Operator on my behalf throughout the interconnection process (see MN DIP 1.3.2) INITIAL: \_\_\_\_\_

I hereby certify that, to the best of my knowledge, the information provided in this Application is true, and that I have appropriate Site Control in conformance with the MN DIP. I agree to abide by the Terms and Conditions for Interconnecting an Inverter-Based Distributed Energy Resource No Larger than 20 kW (Simplified Process) (see Exhibit A – Terms and Conditions for Interconnecting an Inverter-Based DER No Larger than 20 kW) and return the Certificate of Completion (see Exhibit C – Certificate of Completion) when the DER has been installed.

Interconnection Customer Signature: \_\_\_\_\_

Name (print): \_\_\_\_\_ Date: \_\_\_\_\_

*Send a completed and signed copy of this form with attachments to (Northern States Power Company through its online portal available at [www.xcelenergy.com](http://www.xcelenergy.com) or other applicable URL). Send application fee in electronic format as instructed by the online portal. Only if the online portal or electronic method of sending payment is not available, then mail materials to Xcel Energy, Distributed Energy Resources, 414 Nicollet Mall, Minneapolis, MN 55401.*

(Continued on Sheet No. 10-215)

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**Attachment 2: Simplified Application Form (cont'd)**  
**Exhibit A – Terms and Conditions for Interconnecting an Inverter-Based DER No Larger than 20 kW**

1.0 Construction of the Facility

The Interconnection Customer (the "Customer") may proceed to construct (including operational testing not to exceed two hours) the Distributed Energy Resource(s) when the Area EPS Operator (Northern States Power Company, a Minnesota corporation, or the "Company") approves the Interconnection Application (the "Application").

2.0 Interconnection and Operation

The Customer may operate Distributed Energy Resource(s) and interconnect with the Company's electric system once all of the following have occurred:

2.1. Upon completing construction, the Customer will cause the Distributed Energy Resource(s) to be inspected or otherwise certified by the appropriate local electrical wiring inspector with jurisdiction, and

2.2. The Customer returns the Certificate of Completion to the Company, and

2.3. The Company:

2.3.1 Shall have the opportunity to witness test as described in Minnesota Technical Requirements, but takes no liability for the results of the test. Completes its inspection of the Distributed Energy Resource(s) to ensure that all equipment has been appropriately installed and that all electrical connections have been made in accordance with applicable codes and standards. All inspections must be conducted by the Company, at its own expense, within ten Business Days after receipt of the Certificate of Completion and shall take place at a time agreeable to the Parties. The Company shall provide a written permission to operate authorization that the Distributed Energy Resource(s) has passed inspection or shall notify the Customer of what steps it must take to pass inspection within three (3) Business Days.

or

2.3.2 Does not schedule an inspection of the Distributed Energy Resource(s) within ten business days after receiving the Certificate of Completion, in which case the witness test is deemed waived (unless the Parties agree otherwise).

or

2.3.3 Waives the right to inspect the Distributed Energy Resource(s).

(Continued on Sheet No. 10-216)

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**MINNESOTA DISTRIBUTED ENERGY RESOURCES  
INTERCONNECTION PROCESS (MN DIP)  
(Continued)**

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- 2.4. The Company has the right to disconnect the Distributed Energy Resource(s) in the event of: 1) improper installation or failure to return the Certificate of Completion, or 2) does not meet any of the requirements of this Agreement or, 3) if applicable, refusal to sign Uniform Statewide Contract.
- 2.5. Revenue quality metering equipment must be installed and tested in accordance with applicable Minnesota Technical Requirements.
- 2.6. If the Distributed Energy Resource(s) either: 1) does not use default IEEE 1547-2018 functions and settings; or 2) is not yet subject to a developed national standard or national certification, then at the option of the Area EPS Operator there needs to be in place an operating agreement to document and govern the operation of the Distributed Energy Resource(s).
- 3.0 Safe Operations and Maintenance
- The Customer shall be fully responsible to operate, maintain, and repair the Distributed Energy Resource(s) as required to ensure that it complies at all times with the interconnection standards to which it has been certified.
- 4.0 Access
- The Company shall have access to the disconnect switch, if required by the Area EPS Operator, and metering equipment of the Distributed Energy Resource(s) at all times as described in Minnesota Technical Requirements. The Company shall provide reasonable notice to the Customer when possible prior to using its right of access.
- 5.0 Disconnection
- The Company may temporarily disconnect the Distributed Energy Resource(s) upon the following conditions:
- 5.1. For scheduled outages upon reasonable notice.
- 5.2. For unscheduled outages or emergency conditions.
- 5.3. If the Distributed Energy Resource does not operate in the manner consistent with these Terms and Conditions.
- 5.4. The Company shall inform the Customer in advance of any scheduled disconnection, or as is reasonable after an unscheduled disconnection.
- 5.5. If the Customer is in Default it may be disconnected after a 60-day written notice is provided and the Default is not cured during this 60-day notice. This provision does not apply to disconnection based on outages or emergency conditions.

(Continued on Sheet No. 10-217)

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**MINNESOTA DISTRIBUTED ENERGY RESOURCES  
INTERCONNECTION PROCESS (MN DIP)  
(Continued)**

Section No. 10  
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6.0 Treatment Similar to Other Retail Customers

6.1. The Customer may be disconnected consistent with the rules and practices for disconnecting other retail electrical customers

7.0 Indemnification

7.1. This provision protects each Party from liability incurred to third parties as a result of carrying out the provisions of this Agreement.

7.2. The Parties 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 to or death of any person or damage to property, demand, suits, recoveries, costs and expenses, court costs, attorney fees, and all other obligations by or to third parties, arising out of or resulting from the other Party's action or inactions of its obligations under this agreement on behalf of the indemnifying Party, except in cases of gross negligence or intentional wrongdoing by the indemnified Party.

7.3. This indemnification obligation shall apply notwithstanding any negligent or intentional acts, errors or omissions of the indemnified Party, but the indemnifying Party's liability to indemnify the indemnified Party shall be reduced in proportion to the percentage by which the indemnified Party's negligent or intentional acts, errors or omissions caused the damages.

7.4. Neither Party shall be indemnified for its damages resulting from its sole negligence, intentional acts or willful misconduct. These indemnity provisions shall not be construed to relieve any insurer of its obligation to pay claims consistent with the provisions of a valid insurance policy.

7.5. If an indemnified person is entitled to indemnification under this article as a result of a claim by a third party, and the indemnifying Party fails, after notice and reasonable opportunity to proceed under this article, to assume the defense of such claim, such indemnified person may at the expense of the indemnifying Party contest, settle or consent to the entry of any judgment with respect to, or pay in full, such claim.

7.6. If an indemnifying party is obligated to indemnify and hold any indemnified person harmless under this article, the amount owing to the indemnified person shall be the amount of such indemnified person's actual loss, net of any insurance or other recovery.

7.7. Promptly after receipt by an indemnified person of any claim or notice of the commencement of any action or administrative or legal proceeding or investigation as to which the indemnity provided for in this article may apply, the indemnified person shall notify the indemnifying party of such fact. Any failure of or delay in such notification shall not affect a Party's indemnification obligation unless such failure or delay is materially prejudicial to the indemnifying party.

(Continued on Sheet No. 10-218)

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8.0 Insurance

The Parties agree to follow all applicable insurance requirements imposed by Minnesota. All insurance policies must be maintained with insurers authorized to do business in Minnesota. See MN DIP Section 5.10.

9.0 Limitation of Liability

Each party's liability to the other party for any loss, cost, claim, injury, liability, or expense, including reasonable attorney's fees, relating to or arising from any act or omission in its performance of this Agreement, 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 indirect, incidental, special, consequential, or punitive damages of any kind whatsoever, except as allowed under paragraph 6.0.

10.0 Termination

The agreement to operate in parallel may be terminated under the following conditions:

10.1. By the Customer

By providing written notice to the Company.

10.2. By the Company

If the Distributed Energy Resource(s) fails to operate for any consecutive 12 month period or the Customer fails to remedy a violation of these Terms and Conditions.

10.3. Permanent Disconnection

In the event this Agreement is terminated, the Company shall have the right to disconnect its facilities or direct the Customer to disconnect its Distributed Energy Resource.

10.4. Survival Rights

This Agreement shall continue in effect after termination to the extent necessary to allow or require either Party to fulfill rights or obligations that arose under the Agreement.

11.0 Assignment/Transfer of Ownership of the Facility

This Agreement shall survive the transfer of ownership of the Distributed Energy Resource(s) to a new owner when the new owner agrees in writing to comply with the terms of this Agreement and so notifies the Company.

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(Continued on Sheet No. 10-219)

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**Exhibit B - For Energy Storage**

Application for:  Stand-alone storage as the DER  
 Storage as a component of a DER

*This form is required in addition to a completed Minnesota DER Interconnection Process (MN DIP) Application form for any DER with an energy storage component. Additional information in the application may be required. See Minnesota Technical Requirements.*

*(An application to interconnect is required only for storage designed to operate in parallel with the grid. Backup generators and electric vehicles that do not parallel need not apply.)*

Customer Account Number: \_\_\_\_\_

Address of Generating Facility: \_\_\_\_\_

City: \_\_\_\_\_ State: MN Zip: \_\_\_\_\_

Equipment Manufacturer: \_\_\_\_\_

Equipment Model: \_\_\_\_\_

Real Power, max continuous (kW): \_\_\_\_\_

Apparent Power, max continuous (kVA): \_\_\_\_\_

Power factor range of adjustability: \_\_\_\_\_

Real Power, peak AC Energy (kWh): \_\_\_\_\_

Available control operating modes: \_\_\_\_\_

Control modes being enabled for interconnection: \_\_\_\_\_

Is equipment UL 1741 Listed?  Yes  No

*Manufacturer specification sheet(s) are required to be additionally attached.*

Is the storage 100% charged by a net energy metering eligible energy source?  Yes  No

Source charging the storage (check all that apply): \_\_\_\_\_ Utility \_\_\_\_\_ Solar \_\_\_\_\_ Wind \_\_\_\_\_ Diesel  
\_\_\_\_\_ Other: \_\_\_\_\_

Is the storage configured to export energy to the Area EPS?  Yes  No

Are the settings accessible to the end user?  Yes  No

For non-export, how does the system determine the magnitude of customer load?  
\_\_\_\_\_

What is the process for changing operational modes of the energy storage?  
\_\_\_\_\_  
\_\_\_\_\_

(Continued on Sheet No. 10-220)

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**Exhibit C – Certificate of Completion**

**Distributed Energy Resource Certificate of Completion**

**MN DIP Simplified Process Interconnection**

Customer: \_\_\_\_\_

Account Number: \_\_\_\_\_ Meter Number: \_\_\_\_\_

Application ID number: \_\_\_\_\_

Address of Distributed Energy Resource (DER):  
\_\_\_\_\_

City: \_\_\_\_\_ State: MN Zip: \_\_\_\_\_

Is the DER owner-installed? Yes No If no: Install

Company: \_\_\_\_\_

Contact: \_\_\_\_\_

Phone: \_\_\_\_\_ Email: \_\_\_\_\_

Electrician Name / License#: \_\_\_\_\_

*The DER has been installed and inspected in compliance with the local electrical permitting authority as verified by the signature below or the additionally attached document.*

Inspector Signature: \_\_\_\_\_

Print Name: \_\_\_\_\_ Date: \_\_\_\_\_

Authority Having Jurisdiction (city/county): \_\_\_\_\_

*As a condition of interconnection, electronically submit this completed form through the Area EPS Operator's online portal. Only if this online portal is not available, email a completed copy of this form to Northern States Power Company Distributed Energy Resources at [MNDER@xcelenergy.com](mailto:MNDER@xcelenergy.com) If the online portal is not available, you may also mail the form to: Xcel Energy, Distributed Energy Resources, 414 Nicollet Mall, Minneapolis, MN 55401.*

(Continued on Sheet No. 10-221)

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**Attachment 3: Interconnection Application Form**

**MINNESOTA DISTRIBUTED ENERGY RESOURCES**

**INTERCONNECTION APPLICATION (Form Template)**

This form is for Distributed Energy Resources (DERs) that meets the eligibility of the Minnesota Interconnection Process (see Section 1.1) and are not eligible for consideration under the Section 2 Simplified Process.

This Application is considered complete when it provides all applicable and correct information required below. Additional technical data may be necessary prior to the system impact study process as described in 4.3.3, if applicable, but is not relevant to application completeness. The following additional information must be submitted with an application:

- Single Line Diagram       Proof of Site Control (see Section 1.7) and Site Diagram       Specification Sheet(s)

A DER with an energy storage component must additionally complete Exhibit B – For Energy Storage

Application is for:

- New DER(s)       Capacity addition or Material Modification to Existing DER (see MN DIP Glossary of Terms )

Select Review Process:

- |   |  |
|---|--|
| <input type="radio"/> <b>Fast Track Process</b>   | <input type="radio"/> <b>Study Process</b>   |
| Confirm eligibility requirements at MN DIP Section 3.1  | Confirm eligibility requirements at MN DIP Section 4.  |
| [For Certified Equipment, the processing fee shall be \$100 + \$1/kW. For non-certified DER, the processing fee shall be \$100 + \$2/kW.] | [The processing fee shall be a deposit of \$1,000 plus \$2.00 per kW towards the cost of the first study under Section 4 Study Process.] |

Additional fees or deposits shall not be required, except as otherwise specified in the MN DIP.

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**MINNESOTA DISTRIBUTED ENERGY RESOURCES  
INTERCONNECTION PROCESS (MN DIP)  
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Interconnection Customer/Owner

Name:

Account Number:

Meter Number:

Mailing Address:

Telephone:

Email:

[If different,] Application  
Agent/Company:

Telephone:

Email:

If capacity addition or Material Modification to existing facility, please describe:

Will the DER be used for any of the following?

Net Metering? Yes \_\_\_ No \_\_\_

To Supply Power to the Interconnection Customer? Yes \_\_\_ No \_\_\_

To Supply Power to Area EPS? Yes \_\_\_ No \_\_\_

Requested Point of Common Coupling (at a minimum, provide: 1) an address or nearest cross-section and 2) GPS coordinates or an annotated aerial map):

Installed DER System Cost (before incentives): \_\_\_\_\_

Interconnection Customer's Requested In-Service Date:

**Distributed Energy Resource Information**

Data applies only to the Distributed Energy Resource not the Interconnection Facilities.

Energy Source:

- |                                 |                                      |                                   |   |
|---------------------------------|--------------------------------------|-----------------------------------|---|
| <input type="checkbox"/> Solar  | <input type="checkbox"/> Wind        | <input type="checkbox"/> Storage  | <input type="checkbox"/> Hydro Type (e.g. Run-of-River):                  |
| <input type="checkbox"/> Diesel | <input type="checkbox"/> Natural Gas | <input type="checkbox"/> Fuel Oil | <input type="checkbox"/> Other (state type, e.g. solar + wind + storage): |

(Continued on Sheet No. 10-223)

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**MINNESOTA DISTRIBUTED ENERGY RESOURCES  
INTERCONNECTION PROCESS (MN DIP)  
(Continued)**

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Prime Mover:

- Photovoltaic     Microturbine     Reciprocating Engine     Fuel Cell  
 Gas Turbine     Steam Turbine     Wind Turbine     Other (state type):

Type of Generator:     Inverter     Synchronous     Induction

DER Nameplate Rating (in kWac):

DER Nameplate kVAR:

Interconnection Customer or Customer-Sited Load (in kW, if none, so state):

Typical Reactive Load (if known):

Maximum Physical Export Capability Requested (in kW):

Export Capability Limited (e.g., through use of a control system, power relay(s), or other similar device settings of adjustments):  Yes  No

If yes, describe: \_\_\_\_\_

List components of the Distributed Energy Resource Certified Equipment:

	Equipment Type	Certifying Entity
1.	_____	_____
2.	_____	_____
3.	_____	_____
4.	_____	_____
5.	_____	_____

Is the prime mover compatible with the certified protective relay package?     Yes     No

Distributed Energy Resource  
Manufacturer, Model Name & Number:

Version Number:

Nameplate Rating in kW:    (Summer):    (Winter):

Nameplate Rating in kVA:    (Summer):    (Winter):

(Continued on Sheet No. 10-224)

Date Filed:    By: Christopher B. Clark    Effective Date:  
President, Northern States Power Company, a Minnesota corporation  
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**MINNESOTA DISTRIBUTED ENERGY RESOURCES  
 INTERCONNECTION PROCESS (MN DIP)  
 (Continued)**

Section No. 10  
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Induction Generators:

Motoring Power (kW):  
 I22t or K (Heating Time  
 Constant):

Rotor Resistance, Rr:  
 Stator Resistance, Rs:  
 Stator Reactance, Xs:

Rotor Reactance, Xr

Magnetizing Reactance,  
 Xm:

Exciting Current:  
 Temperature Rise:

Frame Size:  
 Design Letter:  
 Reactive Power Required In Vars  
 (No Load):  
 Reactive Power Required In Vars  
 (Full Load):  
 Total Rotating Inertia, H:

Per Unit on kVA Base

Short Circuit Reactance,  
 Xd”:

Note: Please contact the Area EPS Operator prior to submitting the Interconnection Application to determine if the specified information above is required.

Excitation and Governor System Data for Synchronous Generators Only

Provide appropriate IEEE model block diagram of excitation system, governor system and power system stabilizer (PSS) in accordance with the regional reliability council criteria. A PSS may be determined to be required by applicable studies. A copy of the manufacturer’s block diagram may not be substituted.

**Interconnection Facilities Information**

Will a transformer be used between the DER and the Point of Common Coupling?

Yes  No

Will the transformer be provided by the Interconnection Customer?

Yes  No

Transformer Data (If Applicable, for Interconnection Customer-Owned Transformer):

Is the transformer:  Single Phase  Three Phase

Size (kVA): Transformer Impedance (%): on kVA Base:

If Three Phase:

Transformer Primary:	Volts:	Delta:	Wye:	Wye Grounded:
Transformer Secondary:	Volts:	Delta:	Wye:	Wye Grounded:
Transformer Tertiary:	Volts:	Delta:	Wye:	Wye Grounded:

(Continued on Sheet No. 10-226)

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INTERCONNECTION PROCESS (MN DIP)  
(Continued)**

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Transformer Fuse Data (If Applicable, for Interconnection Customer-Owned Fuse):

(Attach copy of fuse manufacturer's Minimum Melt and Total Clearing Time-Current Curves)

Manufacturer: \_\_\_\_\_ Type: \_\_\_\_\_ Size: \_\_\_\_\_ Speed: \_\_\_\_\_

Interconnecting Circuit Breaker (if applicable):

Manufacturer: \_\_\_\_\_ Type: \_\_\_\_\_

Load Rating Interrupting Rating Trip Speed  
(Amps) (Amps): (Cycles):

Interconnection Protective Relays (If Applicable):

If Microprocessor-Controlled:

List of Functions and Adjustable Setpoints for the protective equipment or software:

	Setpoint Function	Minimum	Maximum
1.	_____	_____	_____
2.	_____	_____	_____
3.	_____	_____	_____
4.	_____	_____	_____
5.	_____	_____	_____
6.	_____	_____	_____

If Discrete Components:

(Enclose Copy of any Proposed Time-Overcurrent Coordination Curves)

Manufacturer: _____	Type: _____	Style/Catalog No.: _____	Proposed Setting: _____
Manufacturer: _____	Type: _____	Style/Catalog No.: _____	Proposed Setting: _____
Manufacturer: _____	Type: _____	Style/Catalog No.: _____	Proposed Setting: _____
Manufacturer: _____	Type: _____	Style/Catalog No.: _____	Proposed Setting: _____
Manufacturer: _____	Type: _____	Style/Catalog No.: _____	Proposed Setting: _____

Current Transformer Data (If Applicable):

(Enclose Copy of Manufacturer's Excitation and Ratio Correction Curves)

Manufacturer: \_\_\_\_\_

Type: \_\_\_\_\_ Accuracy \_\_\_\_\_ Proposed  
Class: \_\_\_\_\_ Ratio  
Connection: \_\_\_\_\_

Manufacturer: \_\_\_\_\_

Type: \_\_\_\_\_ Accuracy \_\_\_\_\_ Proposed  
Class: \_\_\_\_\_ Ratio  
Connection: \_\_\_\_\_

(Continued on Sheet No. 10-227)

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**MINNESOTA DISTRIBUTED ENERGY RESOURCES  
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(Continued)**

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Potential Transformer Data (If Applicable):

Manufacturer:

Type:	Accuracy Class:	Proposed Ratio Connection:
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Manufacturer:

Type:	Accuracy Class:	Proposed Ratio Connection:
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**General Information**

Enclose copy of site electrical one-line diagram showing the configuration of all DER equipment, current and potential circuits, and protection and control schemes. The one-line diagram shall include:

Interconnection Customer name.

Application ID (or, if applicable, Customer account number)

Installer name and contact information.

Install address- must match application address.

Correct positions of all equipment, including but not limited to panels, inverter, and DC/AC disconnect. Include distances between equipment, and any labeling found on equipment. See Minnesota Technical Requirements.

This one-line diagram must be signed and stamped by a Professional Engineer licensed in Minnesota if the DER is larger than 50 kW (if uncertified) and 250 kW (if certified.)

Is One-Line Diagram Enclosed?       Yes     No

Enclose copy of any site documentation that indicates the precise physical location of the proposed Distributed Energy Resource (e.g., USGS topographic map or other diagram or documentation). Is Available Documentation Enclosed?

Proposed location of protective interface equipment on property (include address if different from the Interconnection Customer's address)\_\_\_\_\_

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(Continued on Sheet No. 10-228)

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(Continued)**

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Enclose copy of any site documentation that describes and details the operation of the protection and control schemes. Is Available Documentation Enclosed?  Yes  No

Enclose copies of schematic drawings for all protection and control circuits, relay current circuits, relay potential circuits, and alarm/monitoring circuits (if applicable).  
Are Schematic Drawings Enclosed?  Yes  No

Enclose copies of documentation showing site control (MN DIP Section 1.7)  
Is Available Documentation Enclosed?  Yes  No

Disclaimer: The Area EPS Operator shall notify the Interconnection Customer with an opportunity to request a timeline extension (See MN DIP Section 1.8.2 and 5.2.3.). Failure by the Interconnection Customer to meet and request an extension as described in MN DIP Section 5.2.3 for a timeline outlined in the MN DIP could result in a withdrawn queue position and the need to re-apply. INITIAL: \_\_\_\_\_

**Interconnection Customer Signature**

I hereby certify that, to the best of my knowledge, all the information provided in this Interconnection Application is true and correct.

Interconnection Customer:

Date:

(Continued on Sheet No. 10-229)

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Date Filed: \_\_\_\_\_ By: Christopher B. Clark Effective Date: \_\_\_\_\_  
President, Northern States Power Company, a Minnesota corporation  
Docket No. E002/M-18-714 Order Date: \_\_\_\_\_

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**Attachment 4: Certification Codes and Standards**

Prior to Commission approval of the update of Minnesota Technical Requirements (anticipated in February 2019), the existing Minnesota Technical Requirements and the following standards shall be used in conjunction with the Minnesota Interconnection Process (MN DIP) and Minnesota Interconnection Agreement (MN DIA) for Distributed Energy Resources.<sup>1</sup> Once approved, the Minnesota DER Technical Interconnection and Interoperability Requirements will supersede this attachment.

When the stated version of the following standards is superseded by an approved revision then that revision shall apply.

IEEE 1547-2003 IEEE Standard for Interconnecting Distributed Resources with Electric Power Systems

IEEE 1547a-2014 IEEE Standard for Interconnecting Distributed Resources with Electric Power Systems – Amendment 1

IEEE 1547.1-2005 IEEE Standard Conformance Test Procedures for Equipment Interconnecting Distributed Resources with Electric Power Systems

IEEE 1547.1a-2015 (Amendment to IEEE Std 1547.1 – 2005) IEEE Standard Conformance Test Procedures for Equipment Interconnecting Distributed Resources with Electric Power Systems – Amendment 1

UL 1741 Inverters, Converters, Controllers, and Interconnection System Equipment for Use in Distributed Energy Resources (2010)

NFPA 70 (2017), National Electrical Code

IEEE Std C37.90.1(2012) (Revision of IEEE Std C37.90.1-2002), IEEE Standard for Surge Withstand Capability (SWC) Tests for Protective Relays and Relay Systems Associated with Electric Power Apparatus

IEEE Std C37.90.2 (2004) (Revision of IEEE Std C37.90.2-1995), IEEE Standard for Withstand Capability of Relay Systems to Radiated Electromagnetic Interference from Transceivers

IEEE Std C37.108-2002/1989 (Revision of C37.108-1989/2002), IEEE Guide for the Protection of Network Transformers

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<sup>1</sup> This is an interim document while the Commission updates the Minnesota Distributed Energy Resource Interconnection and Interoperability Technical Requirements which includes alignment with the anticipated final IEEE 1547-2018 revision. For the transition period between Minnesota's existing statewide interconnection standards and the updated standards, both inverters certified to existing 1547.1 and 1547.1a-2015 (most current version); as well as, certified inverters per the expected revised 1547.1 standard should be acceptable.

(Continued on Sheet No. 10-230)

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

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IEEE Std C57.12.44-2014 (Revision of IEEE Std C57.12.44-2005), IEEE Standard Requirements for Secondary Network Protectors

IEEE Std C62.41.2-2002, IEEE Recommended Practice on Characterization of Surges in Low-Voltage (1000V and Less) AC Power Circuits

IEEE Std C62.41.2-2002\_Cor 1-2012 (Corrigendum to IEEE Std C62.41.2-2002) - IEEE Recommended Practice on Characterization of Surges in Low-Voltage (1000 V and Less) AC Power Circuits Corrigendum 1: Deletion of Table A.2 and Associated Text

IEEE Std C62.45-2002 (Revision of IEEE Std C62.45-1992) - IEEE Recommended Practice on Surge Testing for Equipment Connected to Low-Voltage (1000 V and less) AC Power Circuits

ANSI C84.1-(2016) Electric Power Systems and Equipment – Voltage Ratings (60 Hertz)

IEEE Standards Dictionary Online, [Online]

NEMA MG 1-2016, Motors and Generators

IEEE Std 519-2014, IEEE Recommended Practices and Requirements for Harmonic Control in Electrical Power Systems

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(Continued on Sheet No. 10-231)

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**Attachment 5: Certification of Distributed Energy Resource Equipment**

- 1.0 Distributed Energy Resource (DER) equipment proposed for use in an interconnection system shall be considered certified for interconnected operation if: 1) it has been tested in accordance with industry standards for continuous utility interactive operation in compliance with the appropriate codes and standards referenced below by any Nationally Recognized Testing Laboratory (NRTL) recognized by the United States Occupational Safety and Health Administration to test and certify interconnection equipment pursuant to the relevant codes and standards listed in MN DIP Attachment 4, 2) it has been labeled and is publicly listed by such NRTL at the time of the interconnection application, and 3) such NRTL makes readily available for verification all test standards and procedures it utilized in performing such equipment certification, and, with consumer approval, the test data itself. The NRTL may make such information available on its website and by encouraging such information to be included in the manufacturer's literature accompanying the equipment.
- 2.0 The Interconnection Customer must verify that the assembly and use of the equipment falls within the use or uses for which the equipment was tested, labeled, and listed by the NRTL.
- 3.0 Certified equipment shall not require further type-test review, testing, or additional equipment to meet the requirements of this interconnection procedure; however, nothing herein shall preclude the need for a DER Design Evaluation or an on-site commissioning test by the parties to the interconnection as provided for in the Minnesota Technical Requirements.
- 4.0 If the certified equipment package includes only interface components (switchgear, inverters, or other interface devices), then an Interconnection Customer must show that the generator or other electric source being utilized with the equipment package is compatible with the equipment package and is consistent with the testing and listing specified for this type of interconnection equipment.
- 5.0 Provided the generator or electric source, when combined with the equipment package, is within the range of capabilities for which it was tested by the NRTL, and does not violate the interface components' labeling and listing performed by the NRTL, no further type-test review, testing or additional equipment on the customer side of the Point of Common Coupling shall be required to be considered certified for the purposes of this interconnection procedure; however, nothing herein shall preclude the need for a DER Design Evaluation or an on-site commissioning test by the parties to the interconnection as provided for in the Minnesota Technical Requirements.
- 6.0 An equipment package does not include equipment provided by the Area EPS.

(Continued on Sheet No. 10-232)

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**Attachment 6: System Impact Study Agreement**

THIS AGREEMENT is made and entered into this \_\_\_\_ day of \_\_\_\_\_  
20\_\_ by and between \_\_\_\_\_,  
a \_\_\_\_\_ organized and existing under the laws of the State of  
\_\_\_\_\_, ("Interconnection Customer"), and Northern States Power Company, a Minnesota corporation, doing  
business as Xcel Energy ("Area EPS Operator"). Interconnection Customer and Area EPS Operator each may be  
referred to as a "Party," or collectively as the "Parties."

**RECITALS**

**WHEREAS**, the Interconnection Customer is proposing to develop a Distributed Energy Resource (DER) or  
generating capacity addition to an existing DER consistent with the Interconnection Application completed by the  
Interconnection Customer on \_\_\_\_\_; and

**WHEREAS**, the Interconnection Customer desires to interconnect the DER with the Area EPS Operator's electric  
system;

**WHEREAS**, the Interconnection Customer has requested the Area EPS Operator to perform a system impact  
study(s) to assess the impact of interconnecting the DER with the Area EPS Operator's electric System, and potential  
Affected System(s);

**NOW, THEREFORE**, in consideration of and subject to the mutual covenants contained herein the Parties agreed as  
follows:

- 1.0 When used in this Agreement, with initial capitalization, the terms specified shall have the meanings  
indicated or the meanings specified in the standard Minnesota Distributed Energy Resources  
Interconnection Procedures (MN DIP.)
- 2.0 The Interconnection Customer elects and the Area EPS Operator shall cause to be performed a system  
impact study(s) consistent with the MN DIP. The scope of a system impact study shall be subject to the  
assumptions set forth in this Agreement; including Attachment A.
- 3.0 A system impact study will be based upon the technical information provided by Interconnection Customer in  
the Interconnection Application. The Area EPS Operator reserves the right to request additional technical  
information from the Interconnection Customer as may reasonably become necessary consistent with Good  
Utility Practice during the course of the system impact study.

(Continued on Sheet No. 10-233)

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Date Filed: \_\_\_\_\_ By: Christopher B. Clark Effective Date: \_\_\_\_\_  
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- 4.0 A system impact study may, as necessary, consist of a short circuit analysis, a stability analysis, a power flow analysis, voltage drop and flicker studies, protection and set point coordination studies, and grounding reviews. A system impact study shall state the assumptions upon which it is based, state the results of the analyses, and provide the requirement or potential impediments to providing the requested interconnection service, including a preliminary indication of the cost and length of time that would be necessary to correct any problems identified in those analyses and implement the interconnection. A system impact study shall provide a list of facilities that are required as a result of the Interconnection Application and non-binding good faith estimates of cost responsibility and time to construct.
- 5.0 A distribution system impact study shall incorporate a distribution load flow study, an analysis of equipment interrupting ratings, protection coordination study, voltage drop and flicker studies, protection and set point coordination studies, grounding reviews, and the impact on electric system operation, as necessary.
- 6.0 Affected Systems may participate in the preparation of a system impact study, with a division of costs among such entities as they may agree. All Affected Systems shall be afforded an opportunity to review and comment upon a system impact study that covers potential adverse system impacts on their electric systems.
- 7.0 If the Area EPS Operator uses a queuing procedure for sorting or prioritizing projects and their associated cost responsibilities for any required Network Upgrades, the system impact study shall consider all Distributed Energy Resources (and with respect to paragraph 7.3 below, any identified Upgrades associated with such higher queued interconnection) that, on the date the system impact study is commenced –
- 7.1. Are directly interconnected with the Area EPS Operator's electric system; or
  - 7.2. Are interconnected with Affected Systems and may have an impact on the proposed interconnection; and
  - 7.3. Have a pending higher queued Interconnection Application to interconnect with the Area EPS Operator's electric system.
- 8.0 A deposit of the equivalent of the good faith estimated cost of a distribution system impact study and the good faith estimated cost of a transmission system impact study shall be required from the Interconnection Customer when the signed Agreement is provided to the Area EPS Operator.
- 9.0 Any study fees shall be based on the Area EPS Operator's actual costs and will be invoiced to the Interconnection Customer within 20 Business Days after the study is completed and delivered and will include a summary of professional time.
- 10.0 The Interconnection Customer must pay any study costs that exceed the deposit without interest within 20 Business Days on receipt of the invoice or resolution of any dispute. If the deposit exceeds the invoiced fees, the Area EPS Operator shall refund such excess within 20 Business Days of the invoice without interest.

(Continued on Sheet No. 10-234)

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Date Filed: \_\_\_\_\_ By: Christopher B. Clark Effective Date: \_\_\_\_\_  
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**MINNESOTA DISTRIBUTED ENERGY RESOURCES  
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(Continued)**

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11.0 Governing Law, Regulatory Authority, and Rules

The validity, interpretation and enforcement of this Agreement and each of its provisions shall be governed by the laws of the state of Minnesota. This Agreement is subject to all Applicable Laws and Regulations. Each Party expressly reserves the right to seek changes in, appeal, or otherwise contest any laws, orders, or regulations of a Governmental Authority.

12.0 Amendment

The Parties may amend this Agreement by a written instrument duly executed by both Parties.

13.0 No Third-Party Beneficiaries

This Agreement is not intended to and does not create rights, remedies, or benefits of any character whatsoever in favor of any persons, corporations, associations, or entities other than the Parties, and the obligations herein assumed are solely for the use and benefit of the Parties, their successors in interest and where permitted, their assigns.

14.0 Waiver

14.1. The failure of a Party to this Agreement to insist, on any occasion, upon strict performance of any provision of this Agreement will not be considered a waiver of any obligation, right, or duty of, or imposed upon, such Party.

14.2. Any waiver at any time by either Party of its rights with respect to this Agreement shall not be deemed a continuing waiver or a waiver with respect to any other failure to comply with any other obligation, right, duty of this Agreement. Termination or default of this Agreement for any reason by Interconnection Customer shall not constitute a waiver of the Interconnection Customer's legal rights to obtain an interconnection from the Area EPS Operator. Any waiver of this Agreement shall, if requested, be provided in writing.

15.0 Multiple Counterparts

This Agreement may be executed in two or more counterparts, each of which is deemed an original but all constitute one and the same instrument. Electronic signatures are acceptable if the Area EPS Operator has made such a determination pursuant to MN DIP 1.2.1.1.

16.0 No Partnership

This Agreement shall not be interpreted or construed to create an association, joint venture, agency relationship, or partnership between the Parties or to impose any partnership obligation or partnership liability upon either Party. Neither Party shall have any right, power or authority to enter into any agreement or undertaking for, or act on behalf of, or to act as or be an agent or representative of, or to otherwise bind, the other Party.

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(Continued on Sheet No. 10-235)

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Date Filed:

By: Christopher B. Clark

Effective Date:

President, Northern States Power Company, a Minnesota corporation

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17.0 Severability

If any provision or portion of this Agreement shall for any reason be held or adjudged to be invalid or illegal or unenforceable by any court of competent jurisdiction or other Governmental Authority, (1) such portion or provision shall be deemed separate and independent, (2) the Parties shall negotiate in good faith to restore insofar as practicable the benefits to each Party that were affected by such ruling, and (3) the remainder of this Agreement shall remain in full force and effect.

18.0 Subcontractors

Nothing in this Agreement shall prevent a Party from utilizing the services of any subcontractor as it deems appropriate to perform its obligations under this Agreement; provided, however, that each Party shall require its subcontractors to comply with all applicable terms and conditions of this Agreement in providing such services and each Party shall remain primarily liable to the other Party for the performance of such subcontractor.

18.1. The creation of any subcontract relationship shall not relieve the hiring Party of any of its obligations under this Agreement. The hiring Party shall be fully responsible to the other Party for the acts or omissions of any subcontractor the hiring Party hires as if no subcontract had been made; provided, however, that in no event shall the Area EPS Operator be liable for the actions or inactions of the Interconnection Customer or its subcontractors with respect to obligations of the Interconnection Customer under this Agreement. Any applicable obligation imposed by this Agreement upon the hiring Party shall be equally binding upon, and shall be construed as having application to, any subcontractor of such Party.

18.2. The obligations under this article will not be limited in any way by any limitation of subcontractor's insurance.

19.0 Inclusion of Area EPS Operator Tariffs and Rules

The interconnection services provided under this Agreement shall at all times be subject to the terms and conditions set forth in the tariff schedules and rules applicable to the electric service provided by the Area EPS, which tariff schedules and rules are hereby incorporated into this Agreement by this reference. Notwithstanding any other provisions of this Agreement, the Area EPS Operator shall have the right to unilaterally file with the Minnesota Public Utilities Commission, pursuant to the Commission's rules and regulations, an application for change in rates, charges, classification, service, tariff, or rule or any agreement relating thereto. The Interconnection Customer shall also have the right to unilaterally file with the Minnesota Public Utilities Commission, pursuant to the Commission's rules and regulations, an application for change in rates, charges, classification, service, tariff, or rule or any agreement relating thereto. Each Party shall have the right to protest any such filing by the other Party and/or to participate fully in any proceeding before the Minnesota Public Utilities Commission in which such modifications may be considered, pursuant to the Commission's rules and regulations.

(Continued on Sheet No. 10-236)

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**MINNESOTA DISTRIBUTED ENERGY RESOURCES  
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(Continued)**

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**IN WITNESS THEREOF**, the Parties have caused this Agreement to be duly executed by their duly authorized officers or agents on the day and year first above written.

<b>Northern States Power Company, a Minnesota corporation (Area EPS Operator)</b>	_____ <b>(Interconnection Customer)</b>
Signed: _____	Signed: _____
Name (Printed): _____	Name (Printed): _____
Title: _____	Title: _____

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(Continued on Sheet No. 10-237)

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Date Filed: \_\_\_\_\_ By: Christopher B. Clark Effective Date: \_\_\_\_\_  
President, Northern States Power Company, a Minnesota corporation  
Docket No. E002/M-18-714 Order Date: \_\_\_\_\_

**Attachment 6: System Impact Study Agreement (cont'd)**

**Attachment A**

**Assumptions Used in Conducting the System Impact Study**

The system impact study shall be based upon the following assumptions:

- 1) Designation of Point of Common Coupling and configuration to be studied.
- 2) Designation of alternative Points of DER Interconnection and configuration.

1) and 2) are to be completed by the Interconnection Customer. Other assumptions (listed below) are to be provided by the Interconnection Customer and the Area EPS Operator. The Area EPS Operator shall use the Reference Point for Applicability which is either the Point of Common Coupling or the Point(s) of DER Interconnection as described in IEEE 1547.

**Additional DER technical data required for System Impact Study**

If applicable, the Area EPS Operator shall list below any additional technical data that is required to adequately perform the System Impact Study. As indicated in MN DIP section 4.3.3, this information is to be returned with the signed system impact study agreement and deposit.

(Continued on Sheet No. 10-238)

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Date Filed:	By: Christopher B. Clark	Effective Date:
	President, Northern States Power Company, a Minnesota corporation	
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**Attachment 7: Facilities Study Agreement**

THIS AGREEMENT is made and entered into this \_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_ by and between \_\_\_\_\_, a \_\_\_\_\_ organized and existing under the laws of the State of \_\_\_\_\_, ("Interconnection Customer,") and Northern States Power Company, a Minnesota corporation, doing business as Xcel Energy, ("Area EPS Operator"). Interconnection Customer and Area EPS Operator each may be referred to as a "Party," or collectively as the "Parties."

**RECITALS**

**WHEREAS**, the Interconnection Customer is proposing to develop a Distributed Energy Resource or generating capacity addition to an existing Distributed Energy Resource consistent with the Interconnection Application completed by the Interconnection Customer on \_\_\_\_\_; and

**WHEREAS**, the Interconnection Customer desires to interconnect the Distributed Energy Resource with the Area EPS Operator's Distribution System;

**WHEREAS**, the Area EPS Operator has completed Initial Review, Supplemental Review, and/or a system impact study and provided the results of said review to the Interconnection Customer, or determined none was required; and

**WHEREAS**, the Interconnection Customer has requested the Area EPS Operator to perform a facilities study to specify, and estimate the cost of, the equipment, engineering, procurement and construction work needed to implement the conclusions of the above noted review in accordance with Good Utility Practice to physically and electrically connect the Distributed Energy Resource with the Area EPS Operator's Distribution System.

**NOW, THEREFORE**, in consideration of and subject to the mutual covenants contained herein the Parties agreed as follows:

- 1.0 When used in this Agreement, with initial capitalization, the terms specified shall have the meanings indicated or the meanings specified in the standard State of Minnesota Distributed Energy Resources Interconnection Procedures (MN DIP).
- 2.0 The Interconnection Customer elects and the Area EPS Operator shall cause a facilities study consistent with the standard MN DIP to be performed. The scope of the facilities study shall be subject to data provided in Attachment A to this Agreement.
- 3.0 The facilities study shall specify and estimate the cost of the equipment, engineering, procurement and construction work (including overheads) needed to implement the conclusions of the system impact study(s). The facilities study shall also identify: 1) the electrical switching configuration of the equipment, including, without limitation, transformer, switchgear, meters, and other station equipment, 2) the nature and estimated cost of the Area EPS Operator's Interconnection Facilities and Upgrades necessary to accomplish the interconnection, and 3) an estimate of the time required to complete the construction and installation of such facilities.

(Continued on Sheet No. 10-239)

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Date Filed: \_\_\_\_\_ By: Christopher B. Clark Effective Date: \_\_\_\_\_  
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- 4.0 The Area EPS Operator may propose to group facilities required for more than one Interconnection Customer in order to minimize facilities costs through economies of scale, but any Interconnection Customer may require the installation of facilities required for its own Distributed Energy Resource if it is willing to pay the costs of those facilities.
- 5.0 A deposit of the good faith estimate of the facilities study costs shall be required from the Interconnection Customer and provided when the signed Agreement is provided to the Area EPS Operator.
- 6.0 Any study fees shall be based on the Area EPS Operator's actual costs and will be invoiced to the Interconnection Customer within 20 Business Days after the study is completed and delivered and will include a summary of professional time.
- 7.0 The Interconnection Customer must pay any study costs that exceed the deposit without interest within 20 Business Days on receipt of the invoice or resolution of any dispute. If the deposit exceeds the invoiced fees, the Area EPS Operator shall refund such excess within 20 Business Days of the invoice without interest.
- 8.0 **Governing Law, Regulatory Authority, and Rules**
- The validity, interpretation and enforcement of this Agreement and each of its provisions shall be governed by the laws of the state of Minnesota. This Agreement is subject to all Applicable Laws and Regulations. Each Party expressly reserves the right to seek changes in, appeal, or otherwise contest any laws, orders, or regulations of a Governmental Authority.
- 9.0 **Amendment**
- The Parties may amend this Agreement by a written instrument duly executed by both Parties.
- 10.0 **No Third-Party Beneficiaries**
- This Agreement is not intended to and does not create rights, remedies, or benefits of any character whatsoever in favor of any persons, corporations, associations, or entities other than the Parties, and the obligations herein assumed are solely for the use and benefit of the Parties, their successors in interest and where permitted, their assigns.
- 11.0 **Waiver**
- 11.1 The failure of a Party to this Agreement to insist, on any occasion, upon strict performance of any provision of this Agreement will not be considered a waiver of any obligation, right, or duty of, or imposed upon, such Party.

(Continued on Sheet No. 10-240)

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Date Filed: By: Christopher B. Clark Effective Date:  
President, Northern States Power Company, a Minnesota corporation  
Docket No. E002/M-18-714 Order Date:

11.2. Any waiver at any time by either Party of its rights with respect to this Agreement shall not be deemed a continuing waiver or a waiver with respect to any other failure to comply with any other obligation, right, duty of this Agreement. Termination or default of this Agreement for any reason by Interconnection Customer shall not constitute a waiver of the Interconnection Customer's legal rights to obtain an interconnection from the Area EPS Operator. Any waiver of this Agreement shall, if requested, be provided in writing.

12.0 Multiple Counterparts

This Agreement may be executed in two or more counterparts, each of which is deemed an original but all constitute one and the same instrument. Electronic signatures are acceptable if the Area EPS Operator has made such a determination pursuant to MN DIP 1.2.1.1.

13.0 No Partnership

This Agreement shall not be interpreted or construed to create an association, joint venture, agency relationship, or partnership between the Parties or to impose any partnership obligation or partnership liability upon either Party. Neither Party shall have any right, power or authority to enter into any agreement or undertaking for, or act on behalf of, or to act as or be an agent or representative of, or to otherwise bind, the other Party.

14.0 Severability

If any provision or portion of this Agreement shall for any reason be held or adjudged to be invalid or illegal or unenforceable by any court of competent jurisdiction or other Governmental Authority, (1) such portion or provision shall be deemed separate and independent, (2) the Parties shall negotiate in good faith to restore insofar as practicable the benefits to each Party that were affected by such ruling, and (3) the remainder of this Agreement shall remain in full force and effect.

15.0 Subcontractors

Nothing in this Agreement shall prevent a Party from utilizing the services of any subcontractor as it deems appropriate to perform its obligations under this Agreement; provided, however, that each Party shall require its subcontractors to comply with all applicable terms and conditions of this Agreement in providing such services and each Party shall remain primarily liable to the other Party for the performance of such subcontractor.

(Continued on Sheet No. 10-241)

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Date Filed:

By: Christopher B. Clark

Effective Date:

President, Northern States Power Company, a Minnesota corporation

Docket No. E002/M-18-714

Order Date:

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15.1. The creation of any subcontract relationship shall not relieve the hiring Party of any of its obligations under this Agreement. The hiring Party shall be fully responsible to the other Party for the acts or omissions of any subcontractor the hiring Party hires as if no subcontract had been made; provided, however, that in no event shall the Area EPS Operator be liable for the actions or inactions of the Interconnection Customer or its subcontractors with respect to obligations of the Interconnection Customer under this Agreement. Any applicable obligation imposed by this Agreement upon the hiring Party shall be equally binding upon, and shall be construed as having application to, any subcontractor of such Party.

15.2. The obligations under this article will not be limited in any way by any limitation of subcontractor's insurance.

16.0 Inclusion of Area EPS Operator Tariffs and Rules

The interconnection services provided under this Agreement shall at all times be subject to the terms and conditions set forth in the tariff schedules and rules applicable to the electric service provided by the Area EPS, which tariff schedules and rules are hereby incorporated into this Agreement by this reference. Notwithstanding any other provisions of this Agreement, the Area EPS Operator shall have the right to unilaterally file with the MPUC, pursuant to the MPUC's rules and regulations, an application for change in rates, charges, classification, service, tariff, or rule or any agreement relating thereto. The Interconnection Customer shall also have the right to unilaterally file with the MPUC, pursuant to the MPUC's rules and regulations, an application for change in rates, charges, classification, service, tariff, or rule or any agreement relating thereto. Each Party shall have the right to protest any such filing by the other Party and/or to participate fully in any proceeding before the MPUC in which such modifications may be considered, pursuant to the MPUC's rules and regulations.

17.0 Data to be provided by the Interconnection Customer with the Facilities Study Agreement

17.1. The Interconnection Customer shall be available to meet on site with the Area EPS Operator within 5 Business Days of signing the Facilities Study Agreement. The personnel furnished by the Interconnection Customer for this site meeting shall bring detailed information on the site layout. The Area EPS Operator may request the Interconnection Customer physically places stakes at the location of the major components.<sup>1</sup>

17.2. The Interconnection Customer shall furnish a final site plan detailing the location of major equipment at the time this agreement is returned. The Point of Common Coupling (PCC) and Point of DER Connection (PoC) shall be clearly marked. The site plan shall depict any nearby roads and be labeled with the road name. Accurate dimensions shall be included on the site plan. The proper emergency (911) address, corresponding to the site, shall be labeled on the site plan.

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<sup>1</sup> Examples of major components include, but are not limited to, interconnection transformers, breakers, fuses, reclosers, meters, current transformers (CTs), potential transformers (PTs), switch cabinets, inverters.

(Continued on Sheet No. 10-242)

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**MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2**

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**MINNESOTA DISTRIBUTED ENERGY RESOURCES  
INTERCONNECTION PROCESS (MN DIP)  
(Continued)**

Section No. 10  
Original Sheet No. 242

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- 17.3. The Interconnection Customer shall furnish a final one-line diagram detailing the electrical connections between major components. The one-line shall be returned with the signed Facilities Study Agreement.
- 17.4. Technical cut sheets on all equipment related to metering shall be provided by the Interconnection Customer along with the signed Facilities Study Agreement.
- 17.5. If available, copies of Conditional Use Permit(s) from all necessary authorities shall be returned by the Interconnection Customer with the signed Facilities Study Agreement.
- 17.6. The Interconnection Customer shall secure any necessary easements from private land owners prior to signing the Facilities Study Agreement. Documentation of any such agreements shall be provided to the Area EPS Operator.
- 17.7. In the event that the Area EPS Operator determines a site survey is necessary in order to complete a Facilities Study, the Interconnection Customer shall make good faith efforts to complete the site survey in a timely manner.
- 17.8. The Facilities Study assumes all land use permits required for the interconnection will be approved by the proper authorities. Permits are submitted after the Interconnection Agreement is signed and may impact project costs (i.e., overhead to underground requirement.)
- 17.9. The Interconnection Customer and Area EPS Operator shall provide a single point of contact for design and construction related matters. The Interconnection Customer single point of contact shall respond in a timely manner to Area EPS Operator questions during the Facilities Study.
- 17.10. In the event that an Interconnection Customer does not provide the necessary information described in this agreement, or if the Interconnection Customer takes more than five (5) Business Days to respond to a question during the Facilities Study, the Facilities Study timeframe shall pause until the question is resolved.

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(Continued on Sheet No. 10-243)

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Date Filed: By: Christopher B. Clark Effective Date:  
President, Northern States Power Company, a Minnesota corporation  
Docket No. E002/M-18-714 Order Date:

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

**MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2**

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**MINNESOTA DISTRIBUTED ENERGY RESOURCES  
INTERCONNECTION PROCESS (MN DIP)  
(Continued)**

Section No. 10  
Original Sheet No. 243

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IN WITNESS WHEREOF, the Parties have caused this Agreement to be duly executed by their duly authorized officers or agents on the day and year first above written.

<b>Northern States Power Company, a Minnesota corporation (Area EPS Operator)</b>	_____ <b>(Interconnection Customer)</b>
Signed: _____	Signed: _____
Name (Printed): _____	Name (Printed): _____
Title: _____	Title: _____

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(Continued on Sheet No. 10-244)

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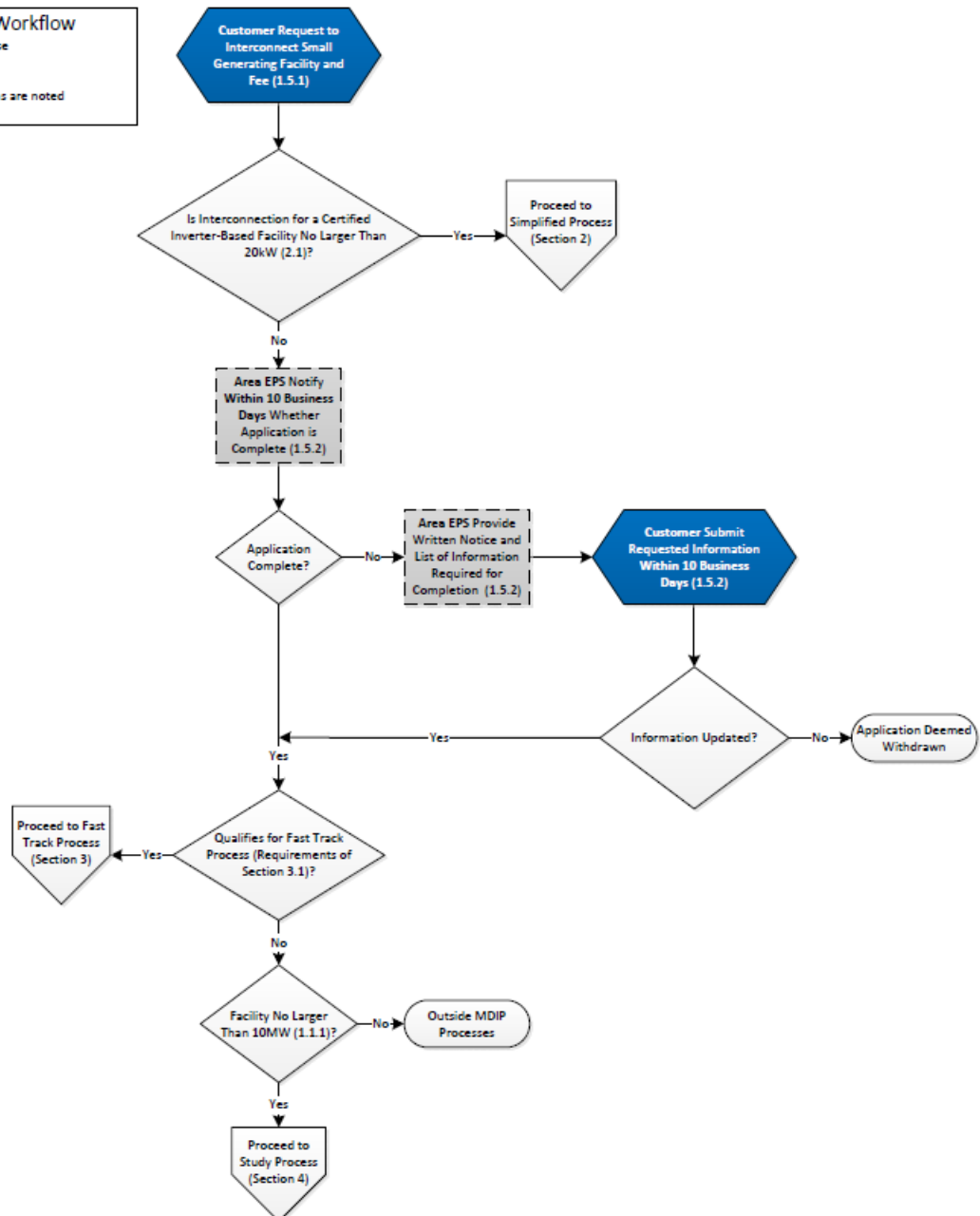
Date Filed: \_\_\_\_\_ By: Christopher B. Clark Effective Date: \_\_\_\_\_  
President, Northern States Power Company, a Minnesota corporation  
Docket No. E002/M-18-714 Order Date: \_\_\_\_\_



**Attachment 8: MN DIP Flow Charts**

N

**MNDIP Integration Workflow**  
 High Level View – for Public Use  
 September 2018  
 Note: Relevant MNDIP Sections are noted parenthetically



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(Continued on Sheet No. 10-245)

Date Filed:

By: Christopher B. Clark

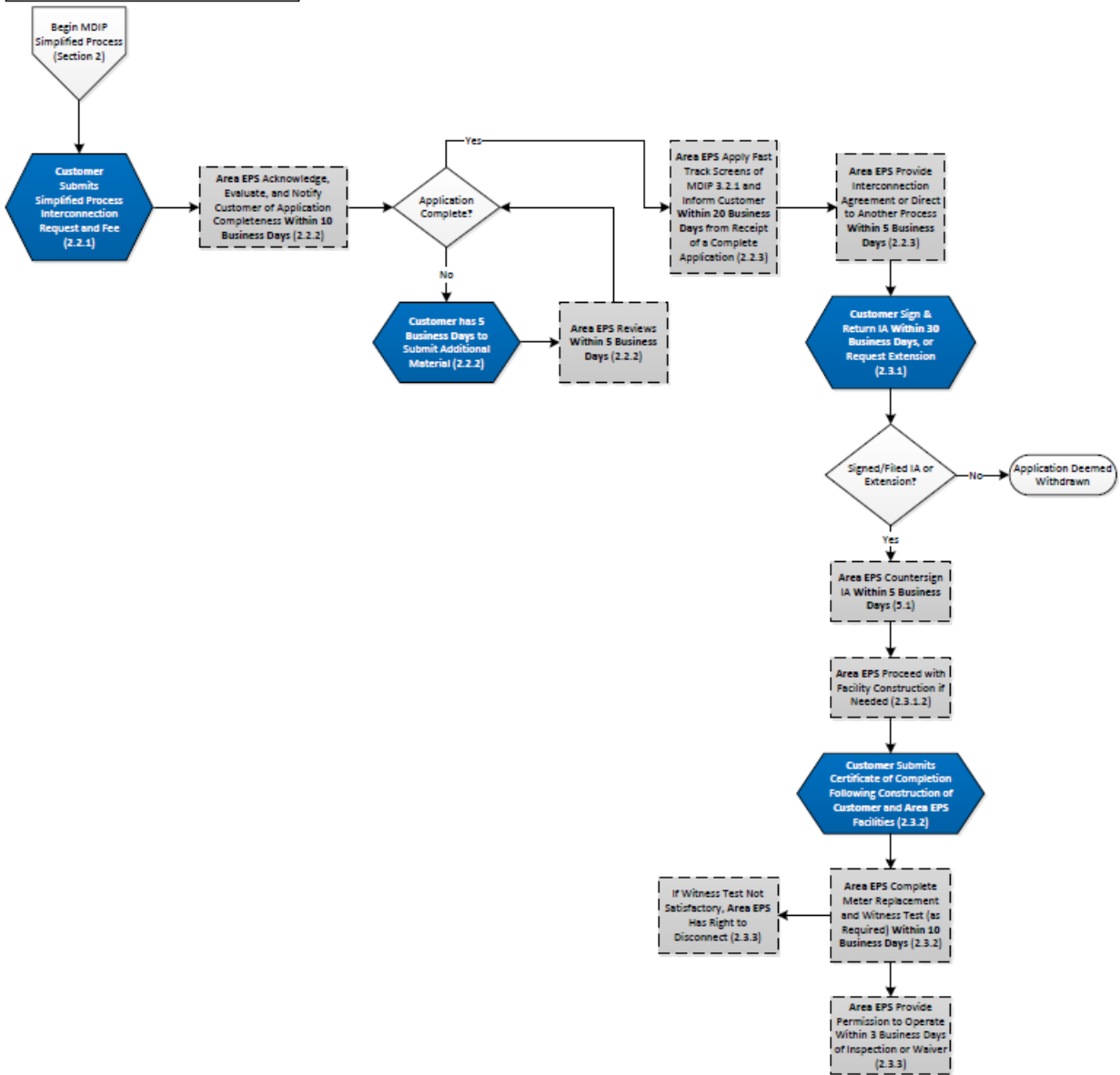
Effective Date:

President, Northern States Power Company, a Minnesota corporation

Docket No. E002/M-18-714

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**MNDIP Simplified Process Workflow**  
 High Level View – for Public Use  
 September 2018  
 Note: Relevant MNDIP Sections are noted parenthetically



(Continued on Sheet No. 10-246)

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By: Christopher B. Clark

Effective Date:

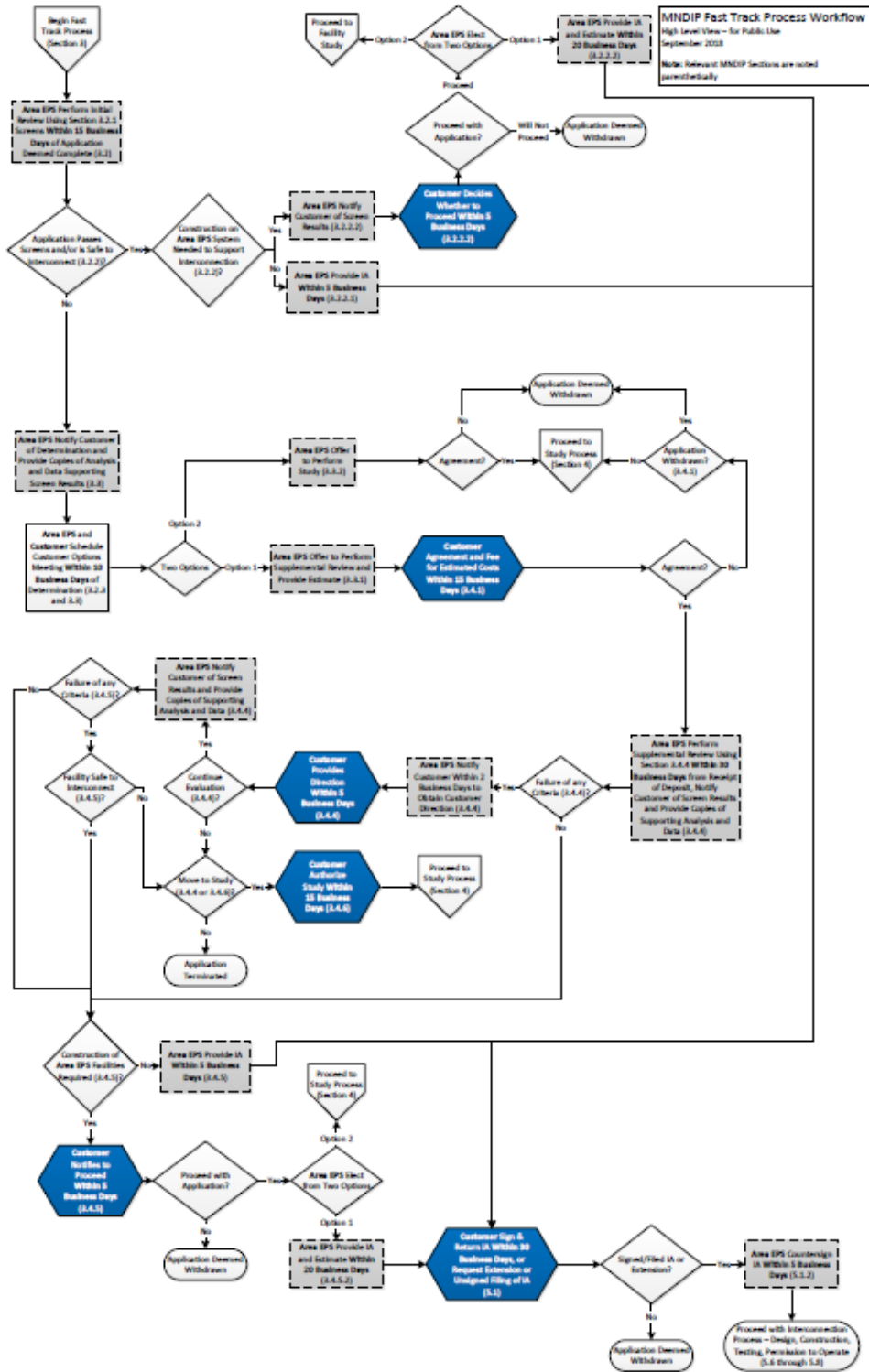
President, Northern States Power Company, a Minnesota corporation

Docket No. E002/M-18-714

Order Date:

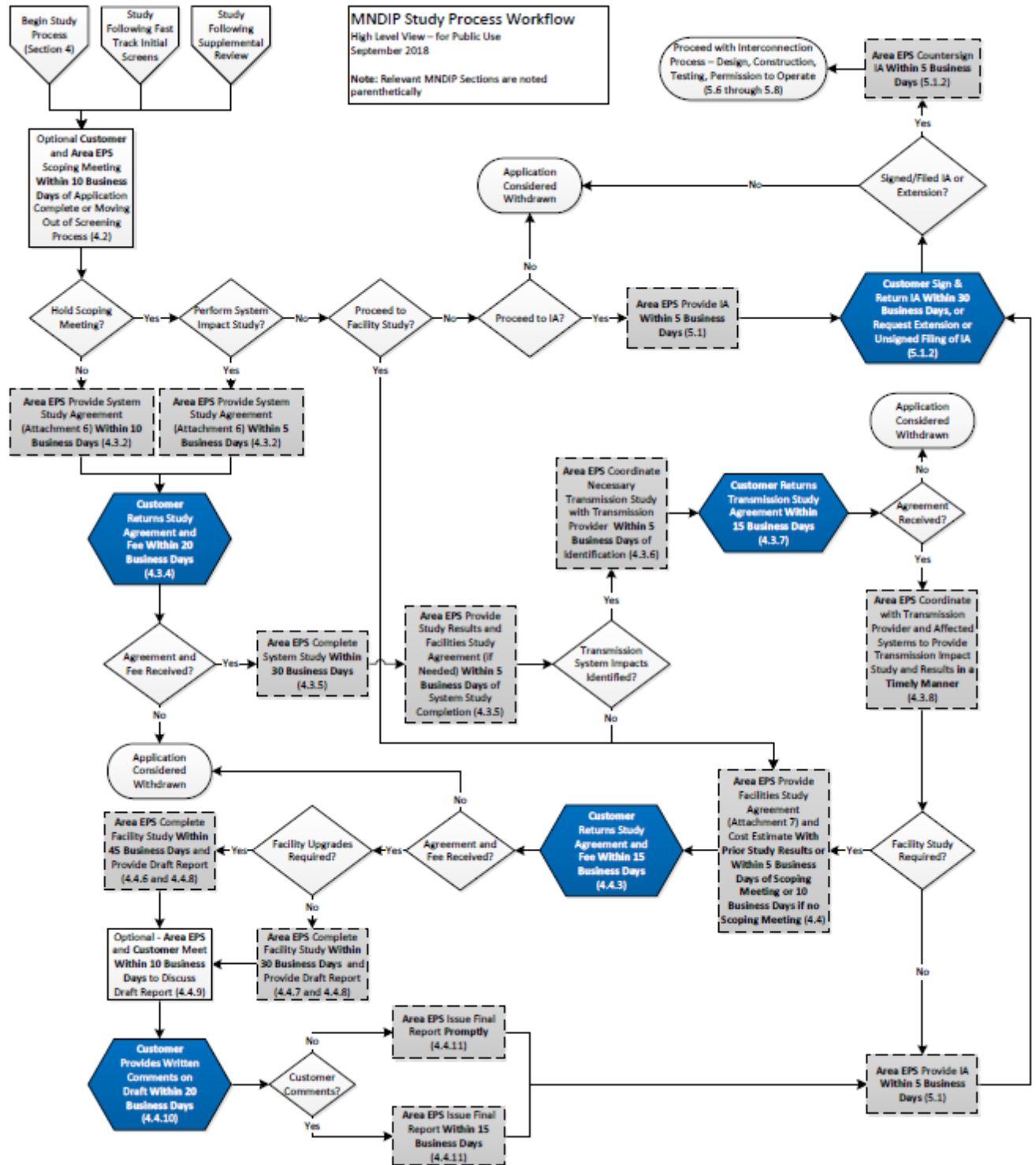
**MINNESOTA DISTRIBUTED ENERGY RESOURCES  
 INTERCONNECTION PROCESS (MN DIP)  
 (Continued)**

Section No. 10  
 Original Sheet No. 246



(Continued on Sheet No. 10-247)

**MINNESOTA DISTRIBUTED ENERGY RESOURCES  
 INTERCONNECTION PROCESS (MN DIP)  
 (Continued)**



(Continued on Sheet No. 10-248)

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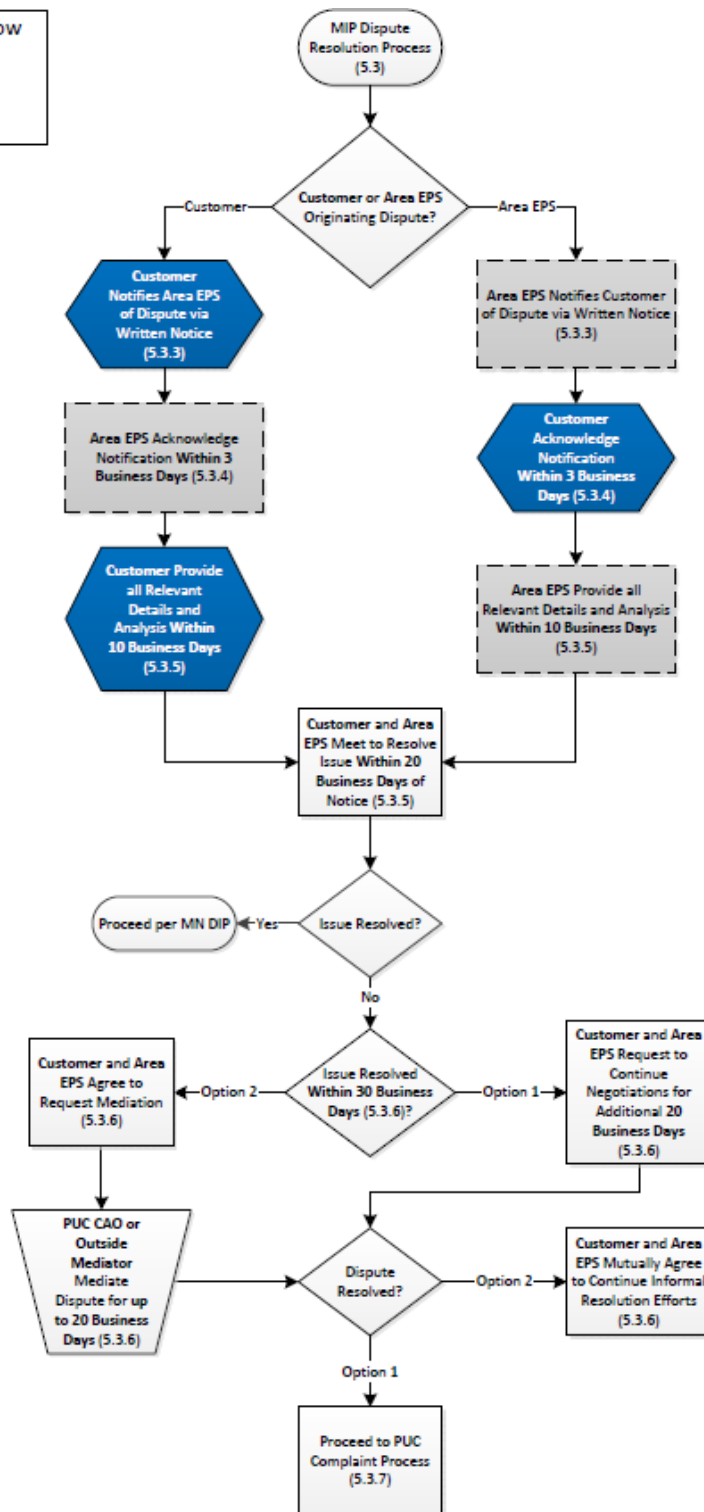
President, Northern States Power Company, a Minnesota corporation

Docket No. E002/M-18-714

Order Date:

**MINNESOTA DISTRIBUTED ENERGY RESOURCES  
 INTERCONNECTION PROCESS (MN DIP)  
 (Continued)**

MNDIP Dispute Process Workflow  
 High Level View – for Public Use  
 September 2018  
 Note: Relevant MNDIP Sections are noted  
 parenthetically



(Continued on Sheet No. 10-249)

Date Filed:

By: Christopher B. Clark

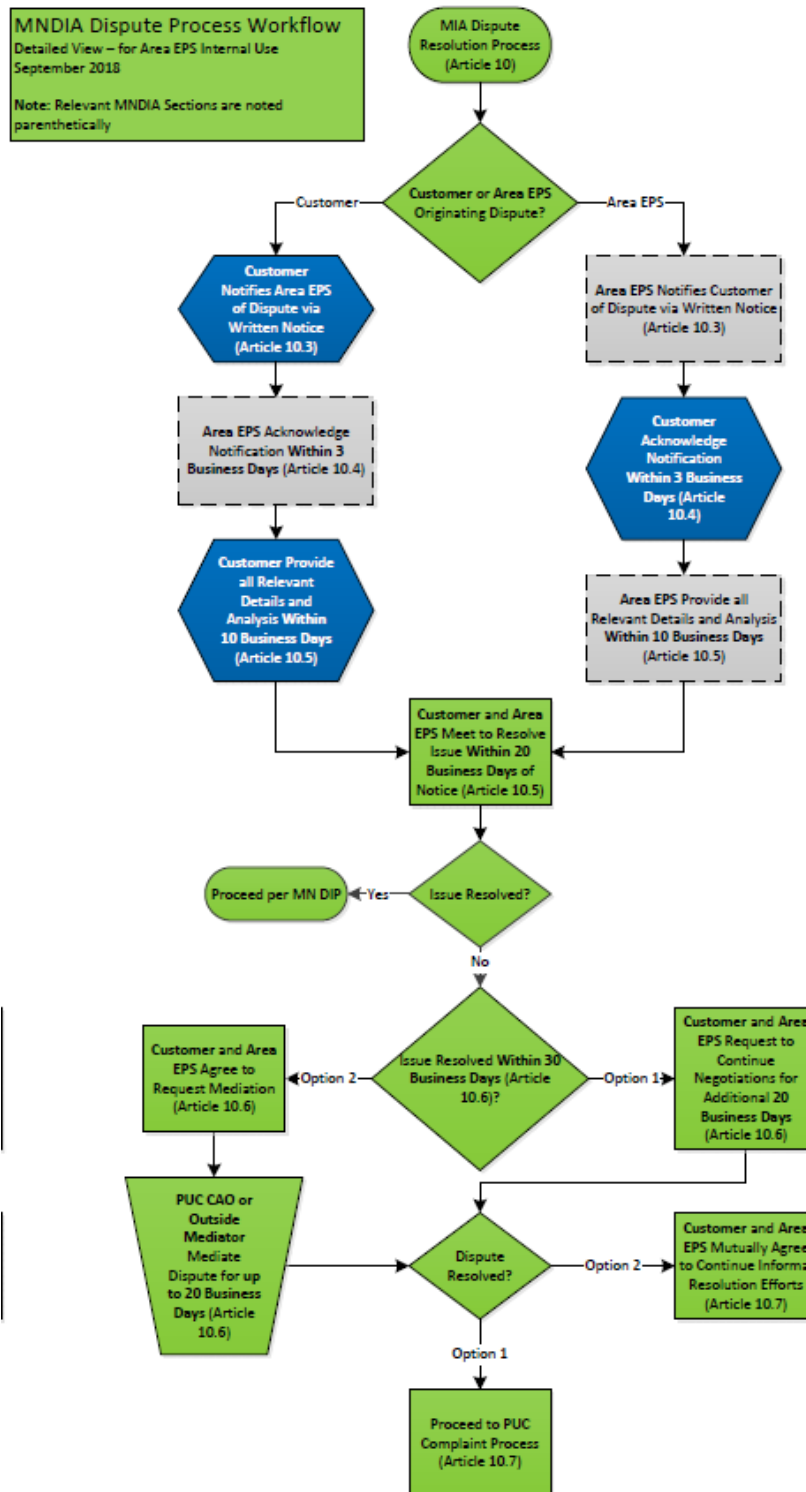
Effective Date:

President, Northern States Power Company, a Minnesota corporation

Docket No. E002/M-18-714

Order Date:

**MINNESOTA DISTRIBUTED ENERGY RESOURCES  
 INTERCONNECTION PROCESS (MN DIP)  
 (Continued)**



**Minnesota Distributed Energy Resource Interconnection Agreement (MN DIA)**

V. 2.3

**(As adopted for Northern States Power Company)**

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**MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2**

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**MINNESOTA DISTRIBUTED ENERGY RESOURCE  
INTERCONNECTION AGREEMENT (MN DIA)  
(Continued)**

Section No. 10  
Original Sheet No. 251

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This Interconnection Agreement ("Agreement") is made and entered into this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_, by Northern States Power Company, a Minnesota corporation, doing business as Xcel Energy ("Area EPS Operator"), and \_\_\_\_\_ ("Interconnection Customer") each hereinafter sometimes referred to individually as "Party" or both referred to collectively as the "Parties."

Area EPS Operator Information

Area EPS Operator: Northern States Power Company, a Minnesota corporation  
Attention: \_\_\_\_\_  
Address: \_\_\_\_\_  
City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_  
Phone: \_\_\_\_\_ Email: \_\_\_\_\_

Interconnection Customer Information

Interconnection Customer: \_\_\_\_\_  
Attention: \_\_\_\_\_  
Address: \_\_\_\_\_  
City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_  
Phone: \_\_\_\_\_ Email: \_\_\_\_\_

Interconnection Customer Application No: \_\_\_\_\_  
Distributed Energy Resource Information (To be completed by the Area EPS Operator)  
Type of DER System (e.g.Solar, Wind, CHP, Solar+Storage): \_\_\_\_\_  
Nameplate Rating \_\_\_\_\_(ac) DER capacity (as described in MN DIP 5.14.3)) \_\_\_\_\_(ac)  
Address of DER system: \_\_\_\_\_  
City \_\_\_\_\_ State MN Zipcode \_\_\_\_\_

In consideration of the mutual covenants set forth herein, the Parties agree as follows:

1. Article 1. Scope and Limitations of Agreement
  - 1.1. This Agreement is intended to provide for the Interconnection Customer to interconnect at the Point of Common Coupling and operate a Distributed Energy Resource with a Nameplate Rating of 10 Megawatts (MW) or less in parallel with the Area EPS at the location identified above and in the Interconnection Application.

(Continued on Sheet No. 10-252)

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Date Filed: \_\_\_\_\_ By: Christopher B. Clark Effective Date: \_\_\_\_\_  
President, Northern States Power Company, a Minnesota corporation  
Docket No. E002/M-18-714 Order Date: \_\_\_\_\_

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**MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2**

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**MINNESOTA DISTRIBUTED ENERGY RESOURCE  
INTERCONNECTION AGREEMENT (MN DIA)  
(Continued)**

Section No. 10  
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- 1.2. This Agreement shall be used for all Interconnection Applications submitted under the Minnesota Distributed Energy Resources Interconnection Process (MN DIP) except for those submitted and processed under the Simplified Process contained in MN DIP Section 2 or qualify and chooses under MN DIP Section 1.1.5 for the Uniform Statewide Contract to replace the need for this Agreement.
- 1.3. This Agreement governs the terms and conditions under which the Interconnection Customer's Distributed Energy Resource will interconnect with, and operate in parallel with, the Area EPS Operator's Distribution System.
- 1.4. Capitalized terms used herein shall have the meanings specified in the Glossary of Terms in Attachment 1, the MN DIP, or the body of this Agreement.
- 1.5. This Agreement does not constitute an agreement to purchase or deliver the Interconnection Customer's power. The purchase or delivery of power and other services that the Interconnection Customer may require will be covered under separate agreements, if any. The Interconnection Customer will be responsible for separately making all necessary arrangements (including scheduling) for delivery of electricity with the applicable Area EPS Operator.
- 1.6. Nothing in this Agreement is intended to affect any other agreement between the Area EPS Operator and the Interconnection Customer.
- 1.7. Responsibilities of the Parties
- 1.7.1. The Parties shall perform all obligations of this Agreement in accordance with the MN DIP, Minnesota Technical Requirements, all Applicable Laws and Regulations, Operating Requirements, and Good Utility Practice.
- 1.7.2. The Interconnection Customer shall construct, interconnect, operate and maintain its Distributed Energy Resource and construct, operate, and maintain its Interconnection Facilities in accordance with the applicable manufacturer's recommended maintenance schedule and, in accordance with this Agreement, and with Good Utility Practice.
- 1.7.3. The Area EPS Operator shall construct, operate, and maintain its Distribution System and its Interconnection Facilities in accordance with this Agreement, and with Good Utility Practice.

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(Continued on Sheet No. 10-253)

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President, Northern States Power Company, a Minnesota corporation  
Docket No. E002/M-18-714 Order Date:

**MINNESOTA DISTRIBUTED ENERGY RESOURCE  
INTERCONNECTION AGREEMENT (MN DIA)  
(Continued)**

Section No. 10  
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- 1.7.4. The Interconnection Customer agrees to construct its facilities or systems in accordance with the Minnesota Technical Requirements and this Agreement; including, applicable specifications that meet or exceed those provided by the National Electrical Safety Code, the American National Standards Institute, IEEE, Underwriter's Laboratory, and Operating Requirements in effect at the time of construction and other applicable national and state codes and standards. The Interconnection Customer agrees to design, install, maintain, and operate its Distributed Energy Resource so as to reasonably minimize the likelihood of a disturbance adversely affecting or impairing the system or equipment of the Area EPS Operator and any Affected Systems.
- 1.7.5. Each Party shall operate, maintain, repair, and inspect, and shall be fully responsible for the facilities that it now owns or subsequently owns unless otherwise specified in the Attachments to this Agreement. Each Party shall be responsible for the safe installation, maintenance, repair and condition of their respective lines and appurtenances on their respective sides of the point of common coupling. The Area EPS Operator and the Interconnection Customer, as appropriate, shall provide Interconnection Facilities that adequately protect the Area EPS Operator's Distribution System, personnel, and other persons from damage and injury. The allocation of responsibility for the design, installation, operation, maintenance and ownership of Interconnection Facilities shall be delineated in the Attachments to this Agreement.
- 1.7.6. The Area EPS Operator shall coordinate with all Affected Systems to support the interconnection.

1.8. Parallel Operation Obligations

Once the Distributed Energy Resource has been authorized to commence parallel operation, the Interconnection Customer shall abide by all rules and procedures pertaining to the parallel operation of the Distributed Energy Resource in the applicable control area, including, but not limited to; 1) the rules and procedures concerning the operation of generation set forth in the Tariff or by the applicable system operator(s) for the Area EPS Operator's Distribution System provided or referenced in an attachment to this Agreement and; 2) the Operating Requirements set forth in Attachment 5 of this Agreement. The Minnesota Technical Requirements for interconnection are covered in a separate document, a copy of which has been made available to the Interconnection Customer and incorporated and made part of this Agreement by this reference.

1.9. Metering

As described in MN DIP 5.4, the Interconnection Customer shall be responsible for the Area EPS Operator's reasonable and necessary cost for the purchase, installation, operation, maintenance, testing, repair, and replacement of metering and data acquisition equipment specified in Attachments 2 and 3 of this Agreement. The Interconnection Customer's metering (and data acquisition, as required) equipment shall conform to applicable industry rules and Operating Requirements.

(Continued on Sheet No. 10-254)

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Date Filed: By: Christopher B. Clark Effective Date:  
President, Northern States Power Company, a Minnesota corporation  
Docket No. E002/M-18-714 Order Date:

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1.10. Distributed Energy Resource Capabilities and Grid Reliability

1.10.1. The Minnesota Technical Requirements outlines the Parties responsibilities consistent with IEEE 1547 Standard for Interconnection and Interoperability of Distributed Energy Resources with Associated Electric Power Systems Interfaces which provides requirements relevant to the interconnection and interoperability performance, operation and testing, and, to safety, maintenance and security considerations.

1.10.2. The Area EPS Operator may offer the Interconnection Customer the option to utilize required DER capabilities to mitigate Interconnection Customer costs related to Upgrades or Interconnection Facilities to address anticipated system impacts from the engineering review (i.e., Initial Review, Supplemental Review, or Study Process described in the MN DIP.)

2. Article 2. Inspection, Testing, Authorization, and Right of Access

2.1. Equipment Testing and Inspection

As described in MN DIP Section 5.7, the Interconnection Customer shall test and inspect its Distributed Energy Resource and Interconnection Facilities prior to interconnection pursuant to Minnesota Technical Requirements and this Agreement.

2.2. Authorization Required Prior to Parallel Operation

As described in MN DIP Section 5.8, the Area EPS Operator shall use Reasonable Efforts to list applicable parallel operation requirements by attaching the Minnesota Technical Requirements and/or including them in Attachment 5 to this Agreement. Additionally, the Area EPS Operator shall notify the Interconnection Customer of any changes to these requirements as soon as they are known. Pursuant to the MN DIP 5.8.2, the Interconnection Customer shall not operate its Distributed Energy Resource in parallel with the Area EPS Operator's Distribution System without prior written authorization of the Area EPS Operator.

2.3. Right of Access

2.3.1. Upon reasonable notice, the Area EPS Operator may send a qualified person to the premises of the Interconnection Customer at or immediately before the time the Distributed Energy Resource first produces energy to inspect the interconnection, and observe the commissioning of the Distributed Energy Resource (including any required testing), startup, and operation for a period of up to three Business Days after initial start-up of the unit. In addition, the Interconnection Customer shall notify the Area EPS Operator at least five Business Days prior to conducting any on-site verification testing of the Distributed Energy Resource.

(Continued on Sheet No. 10-255)

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Date Filed: By: Christopher B. Clark Effective Date:  
President, Northern States Power Company, a Minnesota corporation  
Docket No. E002/M-18-714 Order Date:

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- 2.3.2. Following the initial inspection process described above, at reasonable hours, and upon reasonable notice, or at any time without notice in the event of an emergency or hazardous condition, the Area EPS Operator shall have access to the Interconnection Customer's premises for any reasonable purpose in connection with the performance of the obligations imposed on it by this Agreement or if necessary to meet its legal obligation to provide service to its customers.
- 2.3.3. Each Party shall be responsible for its costs associated with following this article as outlined in MN DIP Section 5.7.2 and the Minnesota Technical Requirements.
3. Article 3. Effective Date, Term, Termination, and Disconnection
- 3.1. Effective Date  
This Agreement shall become effective upon execution by the Parties.
- 3.2. Term of Agreement  
This Agreement shall become effective on the Effective Date and shall remain in effect from the Effective Date unless terminated earlier in accordance with article 3.3 of this Agreement.
- 3.3. Termination  
No termination shall become effective until the Parties have complied with all Applicable Laws and Regulations applicable to such termination.
- 3.3.1. The Interconnection Customer may terminate this Agreement at any time by giving the Area EPS Operator 20 Business Days written notice.
- 3.3.2. Either Party may terminate this Agreement after Default pursuant to article 7.7.
- 3.3.3. Upon termination of this Agreement, the Distributed Energy Resource will be disconnected from the Area EPS Operator's Distribution System. All costs required to effectuate such disconnection shall be borne by the terminating Party, unless such termination resulted from the non-terminating Party's Default of this MN DIA or such non-terminating Party otherwise is responsible for these costs under this MN DIA.
- 3.3.4. The termination of this Agreement shall not relieve either Party of its liabilities and obligations, owed or continuing at the time of the termination.
- 3.3.5. The provisions of this article shall survive termination or expiration of this Agreement.

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(Continued on Sheet No. 10-256)

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Date Filed: By: Christopher B. Clark Effective Date:  
President, Northern States Power Company, a Minnesota corporation  
Docket No. E002/M-18-714 Order Date:

- 3.4. Temporary Disconnection  
Temporary disconnection shall continue only for so long as reasonably necessary under Good Utility Practice.
- 3.4.1. Emergency Conditions  
Under Emergency Conditions, the Area EPS Operator may immediately suspend interconnection service and temporarily disconnect the Distributed Energy Resource. The Area EPS Operator shall use Reasonable Efforts to notify the Interconnection Customer promptly when it becomes aware of an Emergency Condition that may reasonably be expected to affect the Interconnection Customer's operation of the Distributed Energy Resource. The Interconnection Customer shall use Reasonable Efforts to notify the Area EPS Operator promptly when it becomes aware of an Emergency Condition that may reasonably be expected to affect the Area EPS Operator's Distribution System or any Affected Systems. To the extent information is known, the notification shall describe the Emergency Condition, the extent of the damage or deficiency, the expected effect on the operation of both Parties' facilities and operations, its anticipated duration, and the necessary corrective action.
- 3.4.2. Routine Maintenance, Construction, and Repair  
The Area EPS Operator may interrupt interconnection service or curtail the output of the Distributed Energy Resource and temporarily disconnect the Distributed Energy Resource from the Area EPS Operator's Distribution System when necessary for routine maintenance, construction, or repairs on the Area EPS Operator's Distribution System. The Area EPS Operator shall use Reasonable Efforts to provide the Interconnection Customer with three Business Days notice prior to such interruption. The Area EPS Operator shall use Reasonable Efforts to coordinate such reduction or temporary disconnection with the Interconnection Customer.
- 3.4.3. Forced Outage  
During any forced outage, the Area EPS Operator may suspend interconnection service to effect immediate repairs on the Area EPS Operator's Distribution System. The Area EPS Operator shall use Reasonable Efforts to provide the Interconnection Customer with prior notice. If prior notice is not given, the Area EPS Operator shall, upon request, provide the Interconnection Customer written documentation after the fact explaining the circumstances of the disconnection.

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(Continued on Sheet No. 10-257)

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Date Filed:	By: Christopher B. Clark	Effective Date:
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- 3.4.4. Adverse Operating Effects  
The Area EPS Operator shall notify the Interconnection Customer as soon as practicable if, based on Good Utility Practice, operation of the Distributed Energy Resource may cause disruption or deterioration of service to other customers served from the same electric system, or if operating the Distributed Energy Resource could cause damage to the Area EPS Operator's Distribution System or Affected Systems. Supporting documentation used to reach the decision to disconnect shall be provided to the Interconnection Customer upon request. If, after notice, the Interconnection Customer fails to remedy the adverse operating effect within a reasonable time, the Area EPS Operator may disconnect the Distributed Energy Resource. The Area EPS Operator shall provide the Interconnection Customer with five Business Day notice of such disconnection, unless the provisions of article 3.4.1 apply.
- 3.4.5. Modification of the Distributed Energy Resource  
The Interconnection Customer must receive written authorization from the Area EPS Operator before making any change to the Distributed Energy Resource that may have a material impact on the safety or reliability of the Distribution System. Such authorization shall not be unreasonably withheld if the modification is not a Material Modification. Material Modifications, including an increase nameplate rating or capacity, may require the Interconnection Customer to submit a new Interconnection Application as described in MN DIP Section 1.6.2. If the Interconnection Customer makes such modification without the Area EPS Operator's prior written authorization, the latter shall have the right to temporarily disconnect the Distributed Energy Resource.
- 3.4.6. Reconnection  
The Parties shall cooperate with each other to restore the Distributed Energy Resource, Interconnection Facilities, and the Area EPS Operator's Distribution System to their normal operating state as soon as reasonably practicable following a temporary disconnection.
- 3.4.7. Treatment Similar to Other Retail Customers  
If the Interconnection Customer receives retail electrical service at the same site as the Distributed Energy Resource, it may also be disconnected consistent with the rules and practices for disconnecting other retail electrical customers.
- 3.4.8. Disconnection for Default  
If the Interconnection Customer is in Default it may be disconnected after a 60 day written notice is provided and the Default is not cured during this 60 day notice. This provision does not apply to disconnection based on Emergency Conditions.

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(Continued on Sheet No. 10-258)

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4. Article 4. Cost Responsibility for Interconnection Facilities and Distribution Upgrades

4.1. Interconnection Facilities

4.1.1. The Interconnection Customer shall pay for the cost of the Interconnection Facilities itemized in Attachment 2 of this Agreement. The Area EPS Operator shall provide a good faith estimate cost, including overheads, for the purchase and construction of its Interconnection Facilities and provide a detailed itemization of such costs. Costs associated with Interconnection Facilities may be shared with other entities that may benefit from such facilities by agreement of the Interconnection Customer, such other entities, and the Area EPS Operator.

4.1.2. The Interconnection Customer shall be responsible for its share of all reasonable expenses, including overheads, associated with (1) owning, operating, maintaining, repairing, and replacing its own Interconnection Facilities, and (2) operating, maintaining, repairing, and replacing the Area EPS Operator's Interconnection Facilities.

4.2. Distribution Upgrades

The Area EPS Operator shall design, procure, construct, install, and own the Distribution Upgrades described in Attachment 6 of this Agreement. The Area EPS Operator shall provide a good faith estimate cost, including overheads, for the purchase and construction of the Distribution Upgrades and provide a detailed itemization of such costs. If the Area EPS Operator and the Interconnection Customer agree, the Interconnection Customer may construct Distribution Upgrades that are located on land owned by the Interconnection Customer. The actual cost of the Distribution Upgrades, including overheads, shall be directly assigned to the Interconnection Customer.

5. Article 5. Cost Responsibility for Network Upgrades

5.1. Applicability

No portion of this Article 5 shall apply unless the interconnection of the Distributed Energy Resource requires Network Upgrades.

5.2. Network Upgrades

The Area EPS Operator or the Transmission Owner shall design, procure, construct, install, and own the Network Upgrades described in Attachment 6 of this Agreement. The Area EPS Operator shall provide a good faith estimate cost, including overheads, for the purchase and construction of the Network Upgrades and provide a detailed itemization of such costs. If the Area EPS Operator and the Interconnection Customer agree, the Interconnection Customer may construct Network Upgrades that are located on land owned by the Interconnection Customer. Unless the Area EPS Operator elects to pay for Network Upgrades, the actual cost of the Network Upgrades, including overheads, shall be borne initially by the Interconnection Customer.

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5.2.1. Repayment of Amounts Advanced for Network Upgrades

The Interconnection Customer shall be entitled to a cash repayment, equal to the total amount paid to the Area EPS Operator and Affected System operator, if any, for Network Upgrades, including any tax gross-up or other tax-related payments associated with the Network Upgrades, and not otherwise refunded to the Interconnection Customer, to be paid to the Interconnection Customer on a dollar-for-dollar basis for the non-usage sensitive portion of transmission charges, as payments are made under the Area EPS Operator's Tariff and Affected System's Tariff for transmission services with respect to the Distributed Energy Resource. Any repayment shall include interest calculated in accordance with the methodology set forth in FERC's regulations at 18 C.F.R. § 35.19a(a)(2)(iii) from the date of any payment for Network Upgrades through the date on which the Interconnection Customer receives a repayment of such payment pursuant to this subparagraph. The Interconnection Customer may assign such repayment rights to any person.

5.2.1.1. Notwithstanding the foregoing, the Interconnection Customer, the Area EPS Operator, and any applicable Affected System operators may adopt any alternative payment schedule that is mutually agreeable so long as the Area EPS Operator and said Affected System operators take one of the following actions no later than five years from the Commercial Operation Date: (1) return to the Interconnection Customer any amounts advanced for Network Upgrades not previously repaid, or (2) declare in writing that the Area EPS Operator or any applicable Affected System operators will continue to provide payments to the Interconnection Customer on a dollar-for-dollar basis for the non-usage sensitive portion of transmission charges, or develop an alternative schedule that is mutually agreeable and provides for the return of all amounts advanced for Network Upgrades not previously repaid; however, full reimbursement shall not extend beyond 20 years from the commercial operation date.

5.2.1.2. If the Distributed Energy Resource fails to achieve commercial operation, but it or another Distributed Energy Resource is later constructed and requires use of the Network Upgrades within five (5) years of being constructed, the Area EPS Operator and Affected System operator (after receiving payment in the amount of the cost to build these Network Upgrades from the other Distributed Energy Resource who is expected to use the Network Upgrades) shall at that time reimburse the Interconnection Customer for the amounts advanced for the Network Upgrades. Before any such reimbursement can occur, the Interconnection Customer, or the entity that ultimately constructs the Distributed Energy Resource, if different, is responsible for identifying the entity to which reimbursement must be made.

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**MINNESOTA DISTRIBUTED ENERGY RESOURCE  
INTERCONNECTION AGREEMENT (MN DIA)  
(Continued)**

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- 5.3. Special Provisions for Affected Systems  
Unless the Area EPS Operator provides, under this Agreement, for the repayment of amounts advanced to any applicable Affected System operators for Network Upgrades, the Interconnection Customer and Affected System operator shall enter into an agreement that provides for such repayment. The agreement shall specify the terms governing payments to be made by the Interconnection Customer to Affected System operator as well as the repayment by Affected System operator.
- 5.4. Rights Under Other Agreements  
Notwithstanding any other provision of this Agreement, nothing herein shall be construed as relinquishing or foreclosing any rights, including but not limited to firm transmission rights, capacity rights, transmission congestion rights, or transmission credits, that the Interconnection Customer shall be entitled to, now or in the future, under any other agreement or tariff as a result of, or otherwise associated with, the transmission capacity, if any, created by the Network Upgrades, including the right to obtain cash reimbursements or transmission credits for transmission service that is not associated with the Distributed Energy Resource.
6. Article 6. Billing, Payment, Milestones, and Financial Security
- 6.1. Billing and Payment Procedures and Final Accounting
- 6.1.1. The Area EPS Operator shall bill the Interconnection Customer for the design, engineering, construction, and procurement costs of Interconnection Facilities and Upgrades contemplated by this Agreement, and the Interconnection Customer shall pay each bill, pursuant to the MN DIP 5.6.5, or as otherwise agreed to by the Parties.
- 6.1.2. Within 80 Business Days (approximately 4 calendar months) of completing the construction and installation of the Area EPS Operator's Interconnection Facilities and/or Upgrades described in the Attachments to this Agreement, the Area EPS Operator shall provide the Interconnection Customer with a final accounting report, as described in the MN DIP 5.6.6.
- 6.2. Milestones  
Pursuant to the MN DIP 4.4.5, 5.6.2 and 5.6.3, the Parties shall agree on milestones for which each Party is responsible and list them in Attachment 4 of this Agreement.
- 6.3. Financial Security Arrangements  
Pursuant to the MN DIP 5.6.4, the Interconnection Customer shall provide the Area EPS Operator, at the Interconnection Customer's option, a guarantee, letter of credit or other form of security that is reasonably acceptable to the Area EPS Operator and is consistent with the Minnesota Uniform Commercial Code. Such security for payment shall be in an amount sufficient to cover the costs for constructing, designing, procuring, and installing the applicable portion of the Area EPS Operator's Interconnection Facilities and Upgrades and shall be reduced on a dollar-for-dollar basis for payments made to the Area EPS Operator under this Agreement during its term. In addition:

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**MINNESOTA DISTRIBUTED ENERGY RESOURCE  
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- 6.3.1. The guarantee must be made by an entity that meets the creditworthiness requirements of the Area EPS Operator, and contain terms and conditions that guarantee payment of any amount that may be due from the Interconnection Customer, up to an agreed-to maximum amount.
  - 6.3.2. The letter of credit must be issued by a financial institution or insurer reasonably acceptable to the Area EPS Operator and must specify a reasonable expiration date not sooner than sixty (60) Business Days (three calendar months) after the due date for the issuance of the final bill.
7. Article 7. Assignment, Liability, Non-Warranty, Indemnity, Force Majeure, Consequential Damages, and Default
- 7.1. Assignment  
This Agreement may be assigned by either Party upon 15 Business Days prior written notice and opportunity to object by the other Party; provided that:
    - 7.1.1. Either Party may assign this Agreement without the consent of the other Party to any affiliate of the assigning Party with an equal or greater credit rating and with the legal authority and operational ability to satisfy the obligations of the assigning Party under this Agreement, provided that the Interconnection Customer promptly notifies the Area EPS Operator of any such assignment.
    - 7.1.2. The Interconnection Customer shall have the right to assign this Agreement, without the consent of the Area EPS Operator, for collateral security purposes to aid in providing financing for the Distributed Energy Resource, provided that the Interconnection Customer will promptly notify the Area EPS Operator of any such assignment.
    - 7.1.3. Any attempted assignment that violates this article is void and ineffective. Assignment shall not relieve a Party of its obligations, nor shall a Party's obligations be enlarged, in whole or in part, by reason thereof. An assignee is responsible for meeting the same financial, credit, and insurance obligations as the Interconnection Customer. Where required, consent to assignment will not be unreasonably withheld, conditioned or delayed.
  - 7.2. Limitation of Liability  
Each Party's liability to the other Party for any loss, cost, claim, injury, liability, or expense, including reasonable attorney's fees, relating to or arising from any act or omission in its performance of this Agreement, 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 indirect, special, consequential, or punitive damages, except as authorized by this Agreement.

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7.3. Non-Warranty

The Area EPS Operator does not give any warranty, expressed or implied, as to the adequacy, safety, or other characteristics of any structures, equipment, wires, appliances or devices owned, installed or maintained by the Interconnection Customer, including without limitation the Distributed Energy Resource and any structures, equipment, wires, appliances or devices not owned, operated or maintained by the Area EPS Operator.

7.4. Indemnity

7.4.1. This provision protects each Party from liability incurred to third parties as a result of carrying out the provisions of this Agreement. Liability under this provision is exempt from the general limitations on liability found in article 7.2.

7.4.2. The Parties shall at all times indemnify, defend, and hold the other Party harmless from, any and all damages, losses, claims, including claims and actions relating to injury to or death of any person or damage to property, demand, suits, recoveries, costs and expenses, court costs, attorney fees, and all other obligations by or to third parties, arising out of or resulting from the other Party's action or failure to meet its obligations under this Agreement on behalf of the indemnifying Party, except in cases of gross negligence or intentional wrongdoing by the indemnified Party.

7.4.3. This indemnification obligation shall apply notwithstanding any negligent or intentional acts, errors or omissions of the Indemnified Party, but the Indemnifying Party's liability to indemnify the Indemnified Party shall be reduced in proportion to the percentage by which the Indemnified Party's negligent or intentional acts, errors or omissions caused the damage.

7.4.4. Neither Party shall be indemnified for its damages resulting from its sole negligence, intentional acts or willful misconduct. These indemnity provisions shall not be construed to relieve any insurer of its obligation to pay claims consistent with the provisions of a valid insurance policy.

7.4.5. If an indemnified person is entitled to indemnification under this article as a result of a claim by a third party, and the indemnifying Party fails, after notice and reasonable opportunity to proceed under this article, to assume the defense of such claim, such indemnified person may at the expense of the indemnifying Party contest, settle or consent to the entry of any judgment with respect to, or pay in full, such claim.

7.4.6. If an indemnifying party is obligated to indemnify and hold any indemnified person harmless under this article, the amount owing to the indemnified person shall be the amount of such indemnified person's actual loss, net of any insurance or other recovery.

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- 7.4.7. Promptly after receipt by an indemnified person of any claim or notice of the commencement of any action or administrative or legal proceeding or investigation as to which the indemnity provided for in this article may apply, the indemnified person shall notify the indemnifying party of such fact. Any failure of or delay in such notification shall not affect a Party's indemnification obligation unless such failure or delay is materially prejudicial to the indemnifying party.
- 7.5. **Consequential Damages**  
Other than as expressly provided for in this Agreement, neither Party shall be liable under any provision of this Agreement for any losses, damages, costs or expenses for any special, indirect, incidental, consequential, or punitive damages, including but not limited to loss of profit or revenue, loss of the use of equipment, cost of capital, cost of temporary equipment or services, whether based in whole or in part in contract, in tort, including negligence, strict liability, or any other theory of liability; provided, however, that damages for which a Party may be liable to the other Party under another agreement will not be considered to be special, indirect, incidental, or consequential damages hereunder.
- 7.6. **Force Majeure**  
If a Force Majeure Event prevents a Party from fulfilling any obligations under this Agreement, the Party affected by the Force Majeure Event (Affected Party) shall promptly notify the other Party, either in writing or via the telephone, of the existence of the Force Majeure Event. The notification must specify in reasonable detail the circumstances of the Force Majeure Event, its expected duration, and the steps that the Affected Party is taking to mitigate the effects of the event on its performance. The Affected Party shall keep the other Party informed on a continuing basis of developments relating to the Force Majeure Event until the event ends. The Affected Party will be entitled to suspend or modify its performance of obligations under this Agreement (other than the obligation to make payments) only to the extent that the effect of the Force Majeure Event cannot be mitigated by the use of Reasonable Efforts. The Affected Party will use Reasonable Efforts to resume its performance as soon as possible.
- 7.7. **Default**
- 7.7.1. No Default shall exist where such failure to discharge an obligation (other than the payment of money) is the result of a Force Majeure Event as defined in this Agreement or the result of an act or omission of the other Party. Upon a Default, the non-defaulting Party shall give written notice of such Default to the defaulting Party. Except as provided in article 7.6.2, the defaulting Party shall have 60 calendar days from receipt of the Default notice within which to cure such Default; provided however, if such Default is not capable of cure within 60 calendar days, the defaulting Party shall commence such cure within 20 calendar days after notice and continuously and diligently complete such cure within six months from receipt of the Default notice; and, if cured within such time, the Default specified in such notice shall cease to exist.

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7.7.2. If a Default is not cured as provided in this article, or if a Default is not capable of being cured within the period provided for herein, the non-defaulting Party shall have the right to terminate this Agreement by written notice at any time until cure occurs, and be relieved of any further obligation hereunder and, whether or not that Party terminates this Agreement, to recover from the defaulting Party all amounts due hereunder, plus all other damages and remedies to which it is entitled at law or in equity. The provisions of this article will survive termination of this Agreement.

8. Article 8. Insurance

- 8.1. An Area EPS Operator may only require an Interconnection Customer to purchase insurance covering damages pursuant to the MN DIP 5.10.
- 8.2. The Area EPS Operator agrees to maintain general liability insurance or self-insurance consistent with the Area EPS Operator's commercial practice. Such insurance or self-insurance shall not exclude coverage for the Area EPS Operator's liabilities undertaken pursuant to this Agreement.
- 8.3. The Parties further agree to notify each other whenever an accident or incident occurs resulting in any injuries or damages that are included within the scope of coverage of such insurance, whether or not such coverage is sought.
- 8.4. Failure of the Interconnection Customer or Area EPS Operator to enforce the minimum levels of insurance does not relieve the Interconnection Customer from maintaining such levels of insurance or relieve the Interconnection Customer of any liability.

9. Article 9. Confidentiality

- 9.1. Confidential Information shall mean any confidential and/or proprietary information provided by one Party to the other Party that is clearly marked or otherwise designated "Confidential." For purposes of this Agreement, design, operating specifications, and metering data provided by the Interconnection Customer may be deemed Confidential Information regardless of whether it is clearly marked or otherwise designated as such. If requested by either Party, the other Party shall provide in writing the basis for asserting that the information warrants confidential treatment. Parties providing a Governmental Authority trade secret, privileged or otherwise not public or nonpublic data under the Minnesota Government Data Practices Act, Minnesota Statutes Chapter 13, shall identify such data consistent with the Commission's September 1, 1999 Revised Procedures for Handling Trade Secret and Privileged Data, available online at: <https://mn.gov/puc/puc-documents/#4>

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- 9.2. Confidential Information does not include information previously in the public domain with proper authorization, required to be publicly submitted or divulged by Governmental Authorities (after notice to the other Party and after exhausting any opportunity to oppose such publication or release), or necessary to be publicly divulged in an action to enforce this Agreement. Each Party receiving Confidential Information shall hold such information in confidence and shall not disclose it to any third party nor to the public without the prior written authorization from the Party providing that information, except to fulfill obligations under this Agreement, or to fulfill legal or regulatory requirements that could not otherwise be fulfilled by not making the information public.
- 9.2.1. Each Party shall hold in confidence and shall not disclose Confidential Information, to any person (except employees, officers, representatives and agents, who agree to be bound by this section). Confidential Information shall be clearly marked as such on each page or otherwise affirmatively identified. If a court, government agency or entity with the right, power, and authority to do so, requests or requires either Party, by subpoena, oral disposition, interrogatories, requests for production of documents, administrative order, or otherwise, to disclose Confidential Information, that Party shall provide the other Party with prompt notice of such request(s) or requirements(s) so that the other Party may seek an appropriate protective order or waive compliance with the terms of this Agreement. In the absence of a protective order or waiver the Party shall disclose such confidential information which, in the opinion of its counsel, the party is legally compelled to disclose. Each Party will use reasonable efforts to obtain reliable assurance that confidential treatment will be accorded any confidential information so furnished.
- 9.2.2. Critical infrastructure information or information that is deemed or otherwise designated by a Party as Critical Energy/Electric Infrastructure Information (CEII) pursuant to FERC regulation, 18 C.F.R. §388.133, as may be amended from time to time, may be subject to further protections for disclosure as required by FERC or FERC regulations or orders and the disclosing Party's CEII policies.
- 9.2.3. Each Party shall employ at least the same standard of care to protect Confidential Information obtained from the other Party as it employs to protect its own Confidential Information.
- 9.2.4. Each Party is entitled to equitable relief, by injunction or otherwise, to enforce its rights under this provision to prevent the release of Confidential Information without bond or proof of damages, and may seek other remedies available at law or in equity for breach of this provision.

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10. Article 10. Disputes
- 10.1. The Parties agree to attempt to resolve all disputes arising out of the interconnection process and associated study and interconnection agreements according to the provisions of this article and Minnesota Administrative Rules 7829.1500-7829.1900. More information on the Commission's Consumer Affairs Office dispute resolution services is available on the Commission's website: <https://mn.gov/puc/consumers/help/complaint/>
- 10.2. Prior to a written Notice of Dispute, the Party shall contact the other Party and raise the issue and the relief sought in an attempt to resolve the issue immediately.
- 10.3. In the event of a dispute, the disputing Party shall provide the other Party a written Notice of Dispute containing the relevant known facts pertaining to the dispute, the specific dispute and the relief sought, and express notice by the disputing Party that it is invoking the procedures under this article. The Interconnection Customer may utilize the Commission's Consumer Affairs Office's complaint/inquiry form and Informal Complaint dispute resolution process to assist with the written Notice of Dispute. The notice shall be sent to the non-disputing Party's email address and physical address set forth in the interconnection agreement or Interconnection Application, if there is no interconnection agreement. If the Interconnection Customer chooses not to utilize the Commission's Consumer Affairs Office dispute resolution process, the Interconnection Customer shall provide an informational electronic copy of the Notice of Dispute to the Consumer Affairs Office at the Commission at [consumer.puc@state.mn.us](mailto:consumer.puc@state.mn.us).
- 10.4. The non-disputing Party shall acknowledge the notice within three (3) Business Days of its receipt and identify a representative with the authority to make decisions for the non-disputing Party with respect to the dispute.
- 10.5. The non-disputing Party shall provide the disputing Party with relevant regulatory and/or technical details and analysis regarding the Area EPS Operator interconnection requirements under dispute within ten (10) Business Days of the date of the Notice of Dispute. Within twenty (20) Business Days of the date of the Notice of Dispute, the Parties' authorized representatives will be required to meet and confer to try to resolve the dispute. Parties shall operate in good faith and use best efforts to resolve the dispute.
- 10.6. If a resolution is not reached in the thirty (30) Business Days from the date of the notice described in section 10.3, the Parties may 1) if mutually agreed, continue negotiations for up to an additional twenty (20) Business Days; or 2) either Party may request the Commission's Consumer Affairs Office provide mediation in an attempt to resolve the dispute within twenty (20) Business Days with the opportunity to extend this timeline upon mutual agreement. Alternatively, both Parties by mutual agreement may request mediation from an outside third-party mediator with costs to be shared equally between the Parties.

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**MINNESOTA DISTRIBUTED ENERGY RESOURCE  
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- 10.7. If the results of the mediation are not accepted by one or more Parties and there is still disagreement, the dispute shall proceed to the Commission's Formal Complaint process as described in Minn. Rules 7829.1700-1900 unless mutually agreed to continue with informal dispute resolution.
- 10.8. At any time, either Party may file a complaint before the Commission pursuant to Minn. Stat. §216B.164, if applicable, and Commission rules outlined in Minn. Rules Ch. 7829.
11. Article 11. Taxes
- 11.1. The Parties agree to follow all applicable tax laws and regulations, consistent with Internal Revenue Service and any other relevant local, state and federal requirements.
- 11.2. Each Party shall cooperate with the other to maintain the other Party's tax status. It is incumbent on the Party seeking to maintain its tax status to provide formal written notice to the other Party detailing what exact cooperation it is seeking from the other Party well prior to any deadline by which any such action would need to be taken. Nothing in this Agreement is intended to adversely affect, if applicable, the Area EPS Operator's tax exempt status with respect to the issuance of bonds including, but not limited to, local furnishing bonds.
12. Article 12. Miscellaneous
- 12.1. Governing Law, Regulatory Authority, and Rules  
The validity, interpretation and enforcement of this Agreement and each of its provisions shall be governed by the Minnesota Public Utilities Commission and the laws of the state of Minnesota, without regard to its conflicts of law principles. This Agreement is subject to all Applicable Laws and Regulations. Each Party expressly reserves the right to seek changes in, appeal, or otherwise contest any laws, orders, or regulations of a Governmental Authority.
- 12.2. Amendment  
The Parties may amend this Agreement by a written instrument duly executed by both Parties under the process described below, or under article 12.12 of this Agreement.
- If the Parties seek to amend this Agreement by a written instrument duly executed by both Parties, this amendment will need to receive Commission approval prior to it being effective. The Area EPS Operator and Interconnection Customer may seek Commission approval of an amendment to the Interconnection Agreement for use between them for a specific Interconnection Application in the following ways:

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**MINNESOTA DISTRIBUTED ENERGY RESOURCE  
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- 12.2.1. File a Petition with the Commission, or
- 12.2.2. File a Notice with the Commission of the proposed amendment. The Notice should include a copy of the amendment showing in redline format how the amendment would alter the MN DIA between the Area EPS Operator and Interconnection Customer for the Interconnection Application at issue. If no objection or notice of intent to object is filed within 30 days, then the proposed amendment would be considered to be approved by the Commission. If there is a timely filed objection of notice of intent to object, then the proposed amendment would not be considered to have been approved by the Commission and could only be used if the Commission subsequently issues a written order authorizing its use.
- 12.2.3. Commission approval of an amendment to the Interconnection Agreement is not needed where such an amendment only addresses updating or correcting: 1) information specified in the Interconnection Application; 2) exhibits or attachments to the Interconnection Agreement as long as they are not additional agreements or requirements not covered in the MN DIP or Minnesota Technical Requirements; or 3) information provided in the blank lines to the MN DIA or Uniform Statewide Contract forms.
- 12.3. No Third-Party Beneficiaries  
This Agreement is not intended to and does not create rights, remedies, or benefits of any character whatsoever in favor of any persons, corporations, associations, or entities other than the Parties, and the obligations herein assumed are solely for the use and benefit of the Parties, their successors in interest and where permitted, their assigns.
- 12.4. Waiver
  - 12.4.1. The failure of a Party to this Agreement to insist, on any occasion, upon strict performance of any provision of this Agreement will not be considered a waiver of any obligation, right, or duty of, or imposed upon, such Party.
  - 12.4.2. Any waiver at any time by either Party of its rights with respect to this Agreement shall not be deemed a continuing waiver or a waiver with respect to any other failure to comply with any other obligation, right, duty of this Agreement. Termination or default of this Agreement for any reason by Interconnection Customer shall not constitute a waiver of the Interconnection Customer's legal rights to obtain an interconnection from the Area EPS Operator. Any waiver of this Agreement shall, if requested, be provided in writing.

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- 12.5. Entire Agreement  
This Agreement, including all Attachments, constitutes the entire agreement between the Parties with reference to the subject matter hereof, and supersedes all prior and contemporaneous understandings or agreements, oral or written, between the Parties with respect to the subject matter of this Agreement. There are no other agreements, representations, warranties, or covenants which constitute any part of the consideration for, or any condition to, either Party's compliance with its obligations under this Agreement. This Agreement can only be amended or modified in writing signed by both Parties.
- 12.6. Multiple Counterparts  
This Agreement may be executed in two or more counterparts, each of which is deemed an original but all constitute one and the same instrument. Electronic signatures are acceptable if the Area EPS Operator has made such a determination pursuant to MN DIP 1.2.1.1.
- 12.7. No Partnership  
This Agreement shall not be interpreted or construed to create an association, joint venture, agency relationship, or partnership between the Parties or to impose any partnership obligation or partnership liability upon either Party. Neither Party shall have any right, power or authority to enter into any agreement or undertaking for, or act on behalf of, or to act as or be an agent or representative of, or to otherwise bind, the other Party.
- 12.8. Severability  
If any provision or portion of this Agreement shall for any reason be held or adjudged to be invalid or illegal or unenforceable by any court of competent jurisdiction or other Governmental Authority, (1) such portion or provision shall be deemed separate and independent, (2) the Parties shall negotiate in good faith to restore insofar as practicable the benefits to each Party that were affected by such ruling, and (3) the remainder of this Agreement shall remain in full force and effect.
- 12.9. Security Arrangements  
Infrastructure security of electric system equipment and operations and control hardware and software is essential to ensure day-to-day reliability and operational security. All public utilities are expected to meet basic standards for system infrastructure and operational security, including physical, operational, and cyber-security practices.
- 12.10. Environmental Releases  
Each Party shall notify the other Party, first orally and then in writing, of the release of any hazardous substances, any asbestos or lead abatement activities, or any type of remediation activities related to the Distributed Energy Resource or the Interconnection Facilities, each of which may reasonably be expected to affect the other Party. The notifying Party shall (1) provide the notice as soon as practicable, provided such Party makes a good faith effort to provide the notice no later than 24 hours after such Party becomes aware of the occurrence, and (2) promptly furnish to the other Party copies of any publicly available reports filed with any governmental authorities addressing such events.

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12.11. Subcontractors

Nothing in this Agreement shall prevent a Party from utilizing the services of any subcontractor as it deems appropriate to perform its obligations under this Agreement; provided, however, that each Party shall require its subcontractors to comply with all applicable terms and conditions of this Agreement in providing such services and each Party shall remain primarily liable to the other Party for the performance of such subcontractor.

12.11.1. The creation of any subcontract relationship shall not relieve the hiring Party of any of its obligations under this Agreement. The hiring Party shall be fully responsible to the other Party for the acts or omissions of any subcontractor the hiring Party hires as if no subcontract had been made; provided, however, that in no event shall the Area EPS Operator be liable for the actions or inactions of the Interconnection Customer or its subcontractors with respect to obligations of the Interconnection Customer under this Agreement. Any applicable obligation imposed by this Agreement upon the hiring Party shall be equally binding upon, and shall be construed as having application to, any subcontractor of such Party.

12.11.2. The obligations under this article will not be limited in any way by any limitation of subcontractor's insurance.

12.12. Inclusion of Area EPS Operator Tariffs and Rules

The interconnection services provided under this Agreement shall at all times be subject to the terms and conditions set forth in the tariff schedules and rules applicable to the electric service provided by the Area EPS Operator, which tariff schedules and rules are hereby incorporated into this Agreement by this reference. Notwithstanding any other provisions of this Agreement, the Area EPS Operator shall have the right to unilaterally file with the Minnesota Public Utilities Commission pursuant to the Commission's rules and regulations, an application for change in rates, charges, classification, service, tariff, or rule or any agreement relating thereto. The Interconnection Customer shall also have the right to unilaterally file with the Commission, pursuant to the Commission's rules and regulations, an application for change in rates, charges, classification, service, tariff, or rule or any agreement relating thereto. Each Party shall have the right to protest any such filing by the other Party and/or to participate fully in any proceeding before the Commission in which such modifications may be considered, pursuant to the Commission's rules and regulations.

13. Article 13. Notices

13.1. General

Unless otherwise provided in this Agreement, any written notice, demand, or request required or authorized in connection with this Agreement ("Notice") shall be deemed properly given if delivered in person, delivered by recognized national carrier service, or sent by first class mail, postage prepaid, to the person specified below:

(Continued on Sheet No. 10-271)

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**MINNESOTA DISTRIBUTED ENERGY RESOURCE  
INTERCONNECTION AGREEMENT (MN DIA)  
(Continued)**

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If to the Interconnection Customer:

Interconnection Customer: \_\_\_\_\_

Attention: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Phone: \_\_\_\_\_ Email: \_\_\_\_\_

If to the Area EPS Operator:

Area EPS Operator: Northern States Power Company, a Minnesota Corporation

Attention: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Phone: \_\_\_\_\_ Email: \_\_\_\_\_

13.2. Billing and Payment

Billings and payments shall be sent to the addresses set out below:

Interconnection Customer: \_\_\_\_\_

Attention: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Area EPS Operator: Northern States Power Company, a Minnesota Corporation

Attention: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

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(Continued on Sheet No. 10-272)

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(Continued)**

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13.3. Alternative Forms of Notice

Any notice or request required or permitted to be given by either Party to the other and not required by this Agreement to be given in writing may be so given by telephone or email to the telephone numbers and email addresses set out below:

If to the Interconnection Customer:

Interconnection Customer: \_\_\_\_\_

Attention: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Phone: \_\_\_\_\_ Email: \_\_\_\_\_

If to the Area EPS Operator:

Area EPS Operator: Northern States Power Company, a Minnesota Corporation

Attention: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Phone: \_\_\_\_\_ Email: \_\_\_\_\_

13.4. Designated Operating Representative

The Parties may also designate operating representatives to conduct the communications which may be necessary or convenient for the administration of this Agreement. This person will also serve as the point of contact with respect to operations and maintenance of the Party's facilities.

Interconnection Customer's Operating Representative:

Interconnection Customer: \_\_\_\_\_

Attention: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Phone: \_\_\_\_\_ Email: \_\_\_\_\_

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**MINNESOTA DISTRIBUTED ENERGY RESOURCE  
INTERCONNECTION AGREEMENT (MN DIA)  
(Continued)**

Section No. 10  
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Area EPS Operator's Operating Representative:

Area EPS Operator: Northern States Power Company, a Minnesota Corporation

Attention: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Phone: \_\_\_\_\_ Email: \_\_\_\_\_

- 13.5. Changes to the Notice Information  
Either Party may change this information by giving five Business Days written notice to the other Party prior to the effective date of the change.

14. Article 14. Signatures

IN WITNESS WHEREOF, the Parties have caused this Agreement to be executed by their respective duly authorized representatives.

For Northern States Power Company, a Minnesota corporation (Area EPS Operator)–

Signature: \_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

For the Interconnection Customer

Signature: \_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

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(Continued on Sheet No. 10-274)

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Attachment 1: Glossary of Terms

**Affected System** – Another Area EPS Operator's system, or Transmission Owner's Transmission System, or Transmission System connected generation which may be affected by the proposed interconnection.

**Applicant Agent** – A person designated in writing by the Interconnection Customer to represent or provide information to the Area EPS on the Interconnection Customer's behalf throughout the interconnection process.

**Area EPS** - The electric power distribution system connected at the Point of Common Coupling.

**Area EPS Operator** – An entity that owns, controls, or operates the electric power distribution systems that are used for the provision of electric service in Minnesota.

**Business Day** – Monday through Friday, excluding Holidays as defined by [Minn. Stat. §645.44, Subd. 5. See MN DIP 5.2.1 for more on computation of time.](#)

**Certified Equipment** - UL 1741 listing is a common form of DER inverter certification. See MN DIP Attachment 4: Certification Codes and Standards and Attachment 5: Certification of Distributed Energy Resource Equipment.

**Confidential Information** – See MN DIA Article 9.

**Distributed Energy Resource (DER)** – A source of electric power that is not directly connected to a bulk power system. DER includes both generators and energy storage technologies capable of exporting active power to an EPS. An interconnection system or a supplemental DER device that is necessary for compliance with this standard is part of a DER. For the purpose of the MN DIP and MN DIA, the DER includes the Customer's Interconnection Facilities but shall not include the Area EPS Operator's Interconnection Facilities.

**Distribution System** – The Area EPS facilities which are not part of the Local EPS, Transmission System or any generation system.

**Distribution Upgrades** – The additions, modifications, and upgrades to the Distribution System at or beyond the Point of Common Coupling to facilitate interconnection of the DER and render the distribution service necessary to effect the Interconnection Customer's connection to the Distribution System. Distribution Upgrades do not include Interconnection Facilities.

**Effective Date** – Agreement(s) shall become effective upon execution by the Parties.

**Electric Power System (EPS)** – The facilities that deliver electric power to a load.

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**Emergency Conditions** – a condition or situation: (1) that in the judgment of the Party making the claim is imminently likely to endanger life or property; or (2) that, in the case of the Area EPS Operator, is imminently likely (as determined in a non-discriminatory manner) to cause a material adverse effect on the security of, or damage to the Distribution System, the Area EPS Operator's Interconnection Facilities or the Distribution Systems of others to which the Distribution System is directly connected; or (3) that, in the case of the Interconnection Customer, is imminently likely (as determined in a non-discriminatory manner) to cause a material adverse effect on the security of, or damage to, the Distributed Energy Resource or the Interconnection Customer's Interconnection Facilities.

**Fast Track Process** – The procedure as described in MN DIP Section 3 for evaluating an Interconnection Application for a Distributed Energy Resource that meets the eligibility requirements of MN DIP section 3.1.

**Force Majeure Event** – An act of God, labor disturbance, act of the public enemy, war, insurrection, riot, fire, storm or flood, explosion, breakage or accident to machinery or equipment, an order, regulation or restriction imposed by governmental, military or lawfully established civilian authorities, or another cause beyond a Party's control. A Force Majeure Event does not include an act of negligence or intentional wrongdoing.

**Good Utility Practice** – Any of the practices, methods and acts engaged in or approved by a significant portion of the electric industry during the relevant time period, or any of the practices, methods and act which, in the exercise of reasonable judgment in light of the facts known at the time the decision was made, could have been expected to accomplish the desired result at a reasonable cost consistent with good business practices, reliability, safety and expedition. Good Utility Practice is not intended to be limited to the optimum practice, method, or act to the exclusion of all others, but rather to be acceptable practices, methods, or acts generally accepted in the region.

**Governmental Authority** – Any federal, state, local or other governmental regulatory or administrative agency, court, commission, department, board, or other governmental subdivision, legislature, rulemaking board, tribunal, or other governmental authority having jurisdiction over the Parties, their respective facilities, or the respective services they provide, and exercising or entitled to exercise any administrative, executive, police, or taxing authority or power; provided, however, that such term does not include the Interconnection Customer, the Area EPS Operator, or any Affiliate thereof. The Minnesota Public Utilities Commission is the authority governing interconnection requirements unless otherwise provided for in the Minnesota Technical Requirements.

**Interconnection Agreement** – The terms and conditions between the Area EPS Operator and Interconnection Customer (Parties). See MN DIP Section 1.1.5 for when the Uniform Statewide Contract or MN DIA applies.

**Interconnection Application** – The Interconnection Customer's request to interconnect a new or modified, as described in MN DIP Section 1.6, Distributed Energy Resource. See MN DIP Attachment 2 Simplified Application Form and MN DIP Attachment 3 Interconnection Application Form.

**Interconnection Customer** – The person or entity, including the Area EPS Operator, whom will be the owner of the DER that proposes to interconnect a DER(s) with the Area EPS Operator's Distribution System. The Interconnection Customer is responsible for ensuring the Distributed Energy Resource(s) is designed, operated and maintained in compliance with the Minnesota Technical Requirements.

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(Continued on Sheet No. 10-276)

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INTERCONNECTION AGREEMENT (MN DIA)  
(Continued)**

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**Interconnection Facilities** – The Area EPS Operator’s Interconnection Facilities and the Interconnection Customer’s Interconnection Facilities. Collectively, Interconnection Facilities include all facilities and equipment between the Distributed Energy Resource and Customer Interconnection System and the Point of Common Coupling, including any modification, additions or upgrades that are necessary to physically and electrically interconnect the Distributed Energy Resource to the Area EPS Operator’s System. Some examples of Customer Interconnection Facilities include: supplemental DER devices, inverters, and associated wiring and cables up to the Point of DER Connection. Some examples of Area EPS Operator Interconnection Facilities include sole use facilities; such as, line extensions, controls, relays, switches, breakers, transformers and shall not include Distribution Upgrades or Network Upgrades.

**Material Modification** – A modification to machine data, equipment configuration or to the interconnection site of the DER at any time after receiving notification by the Area EPS Operator of a complete Interconnection Application that has a material impact on the cost, timing, or design of any Interconnection Facilities or Upgrades, or a material impact on the cost, timing or design of any Interconnection Application with a later Queue Position or the safety or reliability of the Area EPS.<sup>1</sup>

**MN DIA** - The Minnesota Distributed Energy Resource Interconnection Agreement. See MN DIP Section 1.1.5 for when the Uniform Statewide Contract or MN DIA applies.

**MN DIP** – The Minnesota Distributed Energy Resource Interconnection Process. The statewide interconnection standards.

**MN Technical Requirements or Minnesota Technical Requirements** – The term including all of the DER technical interconnection requirement documents for the state of Minnesota; including: 1) Attachment 2 Distributed Generation Interconnection Requirements established in the Commission’s September 28, 2004 Order in E-999/CI-01-1023) until superseded and upon Commission approval of updated Minnesota DER Technical Interconnection and Interoperability Requirements in E-999/CI-16-521 (anticipated February 2019.)

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<sup>1</sup> A Material Modification shall include, but may not be limited to, a modification from the approved Interconnection Application that: (1) changes the physical location of the point of common coupling; such that it is likely to have an impact on technical review; (2) increases the nameplate rating or output characteristics of the Distributed Energy Resource; (3) changes or replaces generating equipment, such as generator(s), inverter(s), transformers, relaying, controls, etc., and substitutes equipment that is not like-kind substitution in certification, size, ratings, impedances, efficiencies or capabilities of the equipment; (4) changes transformer connection(s) or grounding; and/or (5) changes to a certified inverter with different specifications or different inverter control settings or configuration. A Material Modification shall not include a modification from the approved Interconnection Application that: (1) changes the ownership of a Distributed Energy Resource; (2) changes the address of the Distributed Energy Resource, so long as the physical point of common coupling remains the same; (3) changes or replaces generating equipment such as generator(s), inverter(s), solar panel(s), transformers, relaying, controls, etc. and substitutes equipment that is a like-kind substitution in certification, size, ratings, impedances, efficiencies or capabilities of the equipment; and/or (4) increases the DC/AC ratio but does not increase the maximum AC output capability of the Distributed Energy Resource.

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**Nameplate Rating:** nominal voltage (V), current (A), maximum active power (kWac), apparent power (kVA), and reactive power (kvar) at which a DER is capable of sustained operation. For a Local EPS with multiple DER units, the aggregate nameplate rating is equal to the sum of all DERs nameplate rating in the Local EPS, not including aggregate capacity limiting mechanisms such as coincidence factors, plant controller limits, etc. that may be applicable for specific cases. (Aggregate Nameplate Rating). The nameplate ratings referenced in the MN DIP are alternating current nameplate DER ratings See MN DIP Section 5.14 on Capacity of the Distributed Energy Resource.

**Network Upgrades** – Additions, modifications, and upgrades to the Transmission System required at or beyond the point at which the DER interconnects with the Area EPS Operator’s System to accommodate the interconnection with the DER to the Area EPS Operator’s System. Network Upgrades do not include Distribution Upgrades.

**Notice of Dispute** – The disputing Party shall provide the other Party this written notice containing the relevant known facts pertaining to the dispute, the specific dispute and the relief sought, and express notice by the disputing Party that it is invoking the procedures under MN DIP 5.3.

**Operating Requirements** – Any operating and technical requirements that may be applicable due to the Transmission Provider’s technical requirements or Minnesota Technical Requirements, including those set forth in this Agreement.

**Party or Parties** – The Area EPS Operator and the Interconnection Customer.

**Point of Common Coupling (PCC)** – The point where the Interconnection Facilities connect with the Area EPS Operator’s Distribution System. See figure 1. Equivalent, in most cases, to “service point” as specified by the Area EPS Operator and described in the National Electrical Code and the National Electrical Safety Code.

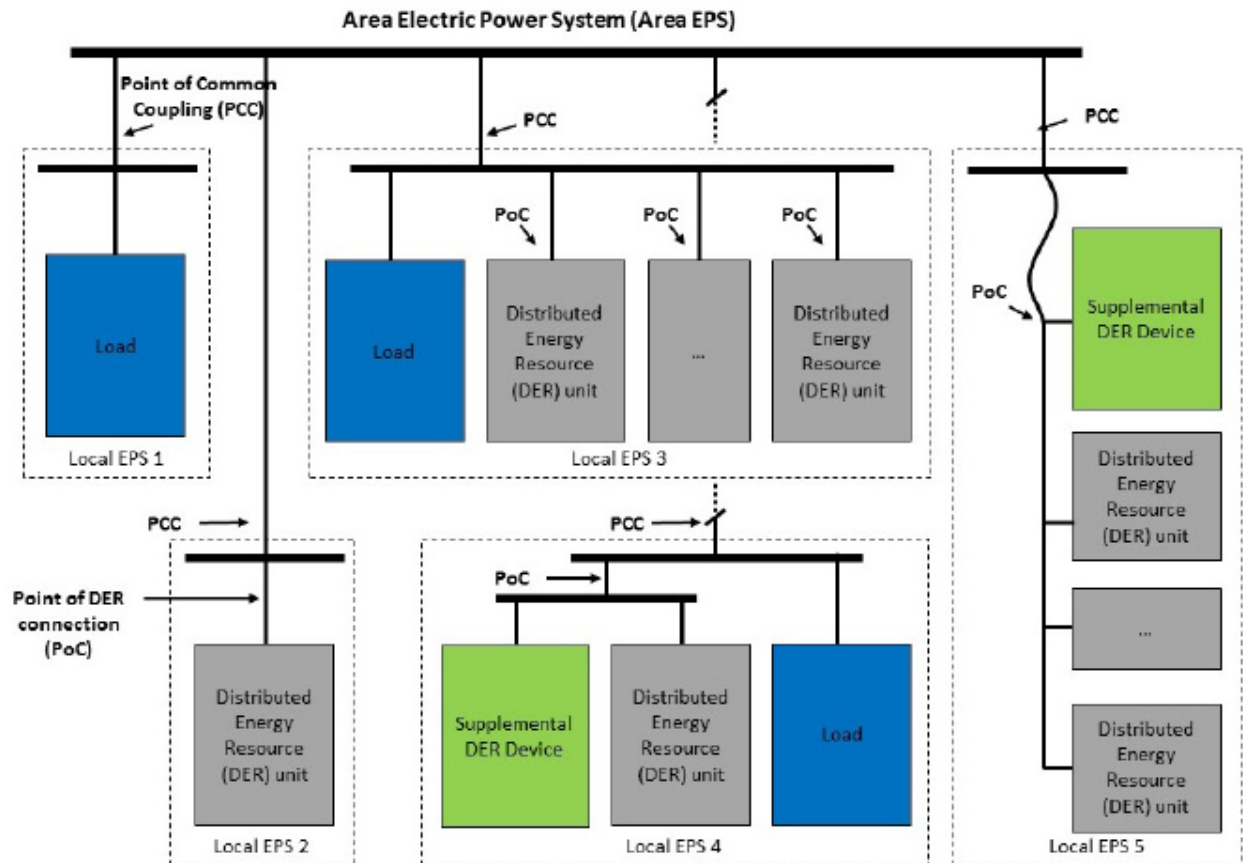
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**Figure 1: Point of Common Coupling and Point of DER Connection**  
 (Source: IEEE 1547)

**Point of DER Connection (PoC)** – When identified as the Reference Point of Applicability, the point where an individual DER is electrically connected in a Local EPS and meets the requirements of this standard exclusive of any load present in the respective part of the Local EPS (e.g., terminals of the inverter when no supplemental DER device is required.) For DER Unit(s) that are not self-sufficient to meet the requirements without (a) supplemental DER device(s), the point of DER connection is the point where the requirements of this standard are met by DER in conjunction with (a) supplemental DER device(s) exclusive of any load present in the respective part of the Local EPS.

**Queue Position** – The order of a valid Interconnection Application, relative to all other pending valid Interconnection Applications, that is established based upon the date- and time- of receipt of the complete Interconnection Application as described in MN DIP sections 1.5.2 and 1.8.

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**Reasonable Efforts** – With respect to an action required to be attempted or taken by a Party under these procedures, efforts that are timely and consistent with Good Utility Practice and are otherwise substantially equivalent to those a Party would use to protect its own interests.

**Reference Point of Applicability** – The location, either the Point of Common Coupling or the Point of DER Connection, where the interconnection and interoperability performance requirements specified in IEEE 1547 apply. With mutual agreement, the Area EPS Operator and Customer may determine a point between the Point of Common Coupling and Point of DER Connection. See Minnesota DER Technical Interconnection and Interoperability Requirements for more information.

**Simplified Process** – The procedure for evaluating an Interconnection Application for a certified inverter-based DER no larger than 20 kW that uses the screens described in MN DIP section 3.2. The Simplified process includes simplified procedures. MN DIP Attachment 2 Simplified Application Form includes a brief set of terms and conditions and the option for an Interconnection Agreement described in MN DIP 1.1.5. See MN DIP Section 2 Simplified Process.

**Study Process** – The procedure for evaluating an Interconnection Application that includes the MN DIP Section 4 scoping meeting, system impact study, and facilities study.

**Tariff** – The Area EPS Operator’s Tariff filed in compliance with the Minnesota Distributed Energy Resource Interconnection Procedures (MN DIP) and approved by the Minnesota Public Utilities Commission (MPUC or Commission).

**Transmission Owner** – The entity that owns, leases or otherwise possesses an interest in the portion of the Transmission System relevant to the Interconnection.

**Transmission Provider** – The entity (or its designated agent) that owns, leases, controls, or operates transmission facilities used for the transmission of electricity. The term Transmission Provider includes the Transmission Owner when the Transmission Owner is separate from the Transmission Provider. The Transmission Provider may include the Independent System Operator or Regional Transmission Operator.

**Transmission System** – The facilities owned, leased, controlled or operated by the Transmission Provider or the Transmission Owner that are used to provide transmission service. See the Commission’s July 26, 2000 Order Adopting Boundary Guidelines for Distinguishing Transmission from Generation and Distribution Assets in Docket No. E-999/CI-99/1261.

**Uniform Statewide Contract** – State of Minnesota’s standard, uniform contract that must be applied to all qualifying new and existing interconnections between a utility and DER having capacity less than 40 kilowatts if interconnecting with a cooperative or municipal utility and 1,000 kilowatts if interconnecting with a public utility. ([Minn. Rules 7835.9910](#))

**Upgrades** – The required additions and modifications to the Area EPS Operator’s Transmission or Distribution System at or beyond the Point of Interconnection. Upgrades may be Network Upgrades or Distribution Upgrades. Upgrades do not include Interconnection Facilities.

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**MINNESOTA DISTRIBUTED ENERGY RESOURCE  
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Attachment 2: Description and Costs of the Distributed Energy Resource, Interconnection Facilities, and Metering Equipment

Equipment, including the Distributed Energy Resource, Interconnection Facilities, and metering equipment shall be itemized and identified as being owned by the Interconnection Customer or the Area EPS Operator. The Area EPS Operator will provide a good faith estimate itemized cost, including administrative overheads, of its Interconnection Facilities and metering equipment, and a good faith estimate itemized cost of the annual operation and maintenance expenses associated with its Interconnection Facilities and metering equipment. The Area EPS shall inform the Interconnection Customer of the option to either pay the metering costs upfront or through a monthly metering fee and provide the customer a copy of the tariff with the metering fee pursuant to MN DIP 5.4.

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Attachment 3: One-line Diagram Depicting the Distributed Energy Resource, Interconnection Facilities, Metering  
Equipment, and Upgrades

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**MINNESOTA DISTRIBUTED ENERGY RESOURCE  
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Attachment 4: Milestones

The Milestone in line (1) below may be a calendar date. All other dates in this Attachment 4 may be number of Business Days from the calendar date in line (1) or from the completion of a different Milestone described in a specified line number. Similarly, the anticipated In-Service Date may be based on the number of Business Days from the completion of a specified line number.

In-Service Date: \_\_\_\_\_

Critical milestones and responsibility as agreed to by the Parties:

	<b>Milestone/Anticipated Date</b>	<b>Responsible Party</b>
(1)	_____	_____
(2)	_____	_____
(3)	_____	_____
(4)	_____	_____
(5)	_____	_____
(6)	_____	_____
(7)	_____	_____
(8)	_____	_____
(9)	_____	_____
(10)	_____	_____

Agreed to by:

For the Area EPS Operator \_\_\_\_\_ Date \_\_\_\_\_

For the Transmission Owner (If Applicable) \_\_\_\_\_ Date \_\_\_\_\_

For the Interconnection Customer \_\_\_\_\_ Date \_\_\_\_\_

(Continued on Sheet No. 10-283)

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Attachment 5: Additional Operating and Maintenance Requirements for the Area EPS Operator's Distribution System and Affected Systems Needed to Support the Interconnection Customer's Needs

The Area EPS Operator shall also provide requirements that must be met by the Interconnection Customer prior to initiating parallel operation with the Area EPS Operator's Distribution System. Additional operating and maintenance requirements for an Affected System needed to support the Interconnection Customer's needs may be addressed in a separate agreement as described in Article 5.3.

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**MINNESOTA DISTRIBUTED ENERGY RESOURCE  
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Attachment 6: Area EPS Operator's Description of Distribution and Network Upgrades and Good Faith Estimates of Upgrade Costs

The Area EPS Operator shall describe Distribution and Network Upgrades and provide an itemized good faith estimate of the costs, including administrative overheads, of the Upgrades and annual operation and maintenance expenses associated with such Upgrades. The Area EPS Operator shall functionalize Upgrade costs and annual expenses as either transmission or distribution related. Additional Distribution or Network Upgrades required for an Affected System may be addressed in a separate agreement as described in Article 5.3.

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**ASSIGNMENT FOR THE MN DIA**

Section No. 10  
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Assignment of Minnesota Distributed Energy Resource Interconnection Agreement (MN DIA)

This is an Assignment of Interconnection Agreement ("Assignment").

There is an Interconnection Agreement, including any and all Attachments thereto including any and all amendments ("Agreement") by and between Northern States Power Company, a Minnesota corporation, doing business as Xcel Energy ("Area EPS Operator"), having its principal office and place of business located at 414 Nicollet Mall, Minneapolis, Minnesota 55401, and \_\_\_\_\_ ("Assignor"), originally signed by the Area EPS Operator on \_\_\_\_\_ for a Distributed Energy Resource (DER) with a Nameplate Rating of \_\_\_\_ kW (AC) located at \_\_\_\_\_.

The Assignor intends to convey its interest in the above-referenced DER to [insert name of new purchaser of the service address shown in Interconnection Application and in one line diagram attached to Agreement] ("Assignee"), and the Assignor intends to assign the Agreement to the Assignee.

Upon the execution of this Assignment by the Assignor, Assignee and the Area EPS Operator, agree as follows:

1. **Capitalized Terms.** Capitalized terms used but not defined herein shall have the meanings set forth in the Agreement.
2. **Consent to Assignment.** The Assignor hereby irrevocably assigns the Agreement in all respects to the Assignee and the Assignee accepts the assignment thereof in all respects.
3. **Amendment to Agreement.** The Area EPS Operator consents to this assignment and, as assigned, the Agreement is hereby amended so that wherever the name of the Assignor is used therein it shall mean the Assignee. It is further agreed that all terms and conditions of the Agreement, as amended by this Assignment, shall remain in full force and effect.
4. **Payments by Area EPS Operator.** Any and all payments made by Area EPS Operator under the Agreement to either the Assignor or the Assignee shall be deemed to have been made to both and shall discharge the Area EPS Operator from any further liability with regard to said payment.
5. **Financial Obligations of Assignor and Assignee.** Any and all financial liability, including but not limited to amounts due, from the Interconnection Customer to the Area EPS Operator, occurring or accruing under the Agreement on or before the date of the signature of the Area EPS Operator to this Assignment shall be deemed to be the obligation of both the Assignor and Assignee, and the Area EPS Operator may recover any such amounts jointly and severally from the Assignor and Assignee.
6. **Contact information.** The following information updates and replaces the designated information as set forth on page 3 of the Agreement, and in Articles 13.1, 13.2, 13.3, and 13.4 of the Agreement.

(Continued on Sheet No. 10-286)

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Date Filed: \_\_\_\_\_ By: Christopher B. Clark Effective Date: \_\_\_\_\_  
President, Northern States Power Company, a Minnesota corporation  
Docket No. E002/M-18-714 Order Date: \_\_\_\_\_

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**ASSIGNMENT FOR THE MN DIA**  
**(Continued)**

Section No. 10  
 Original Sheet No. 286

<p><b>Page 3</b></p>	<p>Interconnection Customer: _____          Attention: _____          Address: _____          City: _____ State: _____ Zip: _____          Phone: _____ Email: _____</p>
<p><b>Article 13.1</b>   <b>General</b></p>	<p>Interconnection Customer: _____          Attention: _____          Address: _____          City: _____ State: _____ Zip: _____          Phone: _____ Email: _____</p>
<p><b>Article 13.2</b>   <b>Billing and</b>   <b>Payment</b></p>	<p>Interconnection Customer: _____          Attention: _____          Address: _____          City: _____ State: _____ Zip: _____</p>
<p><b>Article 13.3</b>   <b>Alternative</b>   <b>Forms of</b>   <b>Notice</b></p>	<p>Interconnection Customer: _____          Attention: _____          Address: _____          City: _____ State: _____ Zip: _____          Phone: _____ Email: _____</p>

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(Continued on Sheet No. 10-287)

Date Filed: \_\_\_\_\_ By: Christopher B. Clark Effective Date: \_\_\_\_\_  
 President, Northern States Power Company, a Minnesota corporation  
 Docket No. E002/M-18-714 Order Date: \_\_\_\_\_

**ASSIGNMENT FOR THE MN DIA**  
**(Continued)**

Section No. 10  
Original Sheet No. 287

<b>Article 13.4 Designated Operating Representative</b>	Interconnection Customer's Operating Representative:
	Interconnection Customer: _____
	Attention: _____
	Address: _____
	City: _____ State: _____ Zip: _____
	Phone: _____ Email: _____

7. **Signatures.** Facsimile or electronic signatures, or signatures to this 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.

The Area EPS Operator, Assignor, and Assignee have executed this Assignment as of the dates as set forth below.

**Assignor** ( \_\_\_\_\_ )

Signature: \_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

**Area EPS Operator** (Northern States Power Company, a Minnesota corporation)

Signature: \_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

**Assignee** ( \_\_\_\_\_ )

Signature: \_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

Date Filed:

By: Christopher B. Clark

Effective Date:

President, Northern States Power Company, a Minnesota corporation

Docket No. E002/M-18-714

Order Date:

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**Annotations to Xcel Energy Redlines – Sections 7, 9 and 10 – Docket No. 18-714**

<b>Section and Sheet #</b>	<b>Par. #</b>	<b>Associated Docket</b>	<b>Notes</b>
Sec. 1, 4-6			Updates to Table of Contents
Sec. 7, TOC			Update to Table of Contents
Sec. 7, 75-86			Need to add redlines for Section 7, Sheets 75-86 – Closed to New Applicants. This is an interconnection agreement form that is pre-MN DIP and only applies to federal agencies under 2 MW.
Sec. 9, TOC			Update to Table of Contents
Sec. 9, 1		16-521	The term “Generation System”, when the interconnection is subject to the MN DIP, shall mean “Distributed Energy Resource” as defined in the MN DIP.
Sec. 9, 1.1		16-521	New defined terms – MN DIA, MN DIP, and MN Technical Requirement. The definitions mirror those set forth in the Staff’s version of the MN DIP (associated with the MPUC’s August 13, 2018 order in Docket No. 16-521), in Attachment 1, Glossary of Terms, and also include all requirements in the Operating Agreement attached to the MN DIA.
Sec. 9, 2	5	16-521	The MN Technical Requirements should apply. As defined, this means that the technical requirements from the 2004 order would apply until they are replaced. Once replaced, the common set of technical requirements would apply to all interconnections regardless of when they were interconnected.
Sec. 9, 3.1	4	16-521	The MN Technical Requirements should apply.
Sec. 9, 4.1	5	16-521	The MN Technical Requirements should apply.
Sec. 9, 4.3	5	16-521	The MN Technical Requirements should apply.
Sec. 9, 5	1 <sup>st</sup> and 3 <sup>rd</sup>	16-521	To the extent that an application or interconnection is subject to the MN DIP, and there is any inconsistency between the provisions of this Section 9 and the MN DIP as set forth in the Section 10 tariff or the MN Technical Requirements, the provisions of the MN DIP and MN Technical Requirements shall control over the provisions of this Section 9 tariff.  The MN Technical Requirements should apply. Additionally, the requirement for the utility to provide a copy of the technical requirements is set forth at Minn. R. 7835.4750, so this requirement was kept in the tariff. The MN DIP, in § 1.1.5.1 addresses under what circumstances the MN DIA needs to be signed in addition to the Uniform Statewide contract, so the older language on this issues on this sheet is marked in redline as being removed.
Sec. 9, 6	1st	16-521	Language revisions to clarify when the Section 10 Interconnection Agreement or MN DIA apply in event customer chooses no sale to the Company.

**Annotations to Xcel Energy Redlines – Sections 7, 9 and 10 – Docket No. 18-714**

<b>Section and Sheet #</b>	<b>Par. #</b>	<b>Associated Docket</b>	<b>Notes</b>
Sec. 9, 7	Middle	16-521	Redlines to the “Parallel Operation” section to point to the MN Technical Requirements.
Sec. 9, 8	5th	16-521	Language changes align payment for additional needed facilities to be consistent with the MN DIP, and where applicable, the MN DIA.
Sec. 9, 8.2	2		Minor edits to remove underlining. (This type of edit is inherently difficult to spot in the redlined version of the tariff).
Sec. 9, 33-48	Header	16-521	Added notation to the second generation S*R tariff: (CLOSED TO NEW APPLICANTS AS OF June 17, 2019) This is the date the MN DIP is planned on going into effect. Tariff sheets 33-48 are for the second generation S*R contract. The second generation S*R contract can no longer apply to new applications filed under MN DIP. Prior to MN DIP, the S*R contract also acted as the interconnection agreement and has many interconnection related provisions. Under the MN DIP, Sections 1.1.5, 2.3 and 5.1, the “Interconnection Agreement” is either the MN DIA or the Uniform Statewide Contract. Because of this, we need to have a third generation S*R contract that removes interconnection terms and conditions. This third generation S*R contract is at proposed Sheets 49-49.12.
Sec. 9, 49 – 49.12	All	16-521	The proposed new sheets at 49 – 49.12 reflect the proposed third generation S*R contract. The notes in the rows immediately below that apply to the third generation contract note the incremental differences between it and the redlined version of the second generation S*R contract in this filing.
Sec. 9, 49	Title and par. 1.a – 1.d.	13-1015	These provisions largely follow Sheet 33, but the payment or refund of the \$250 engineering fee in par. 1.d has been removed as this addresses an interconnection process issue that must follow the MN DIP.
Sec. 9, 49	1.e, f	16-521	The pars. 1.e. and 1.f. that are in the second generation contract on Sheet 33 have not been included in the third generation tariff. 1.e was not included because it addressed interconnection rules that are now covered by the MN DIP. 1.f was not included because it refers to the Made in Minnesota program that is no longer available. The former par. 1.g on Sheet 33 is now 1.e. The new par. 1.f on Sheet 49 has been added to make clear that the MN DIP applies and that the Customer needs to also sign the Uniform Statewide Contract and/or the MN DIA as consistent with the MN DIP requirements and the Customer’s decisions on how it is to be compensated for net metering.

**Annotations to Xcel Energy Redlines – Sections 7, 9 and 10 – Docket No. 18-714**

Section and Sheet #	Par. #	Associated Docket	Notes
Sec. 9, 49.01	All	Docket Nos. 16-521 13-1015	This new sheet for the third generation contract roughly corresponds to Sheet 34, except that what had been pars. 2.a., and 2.b have been removed because if there is net metering then the provisions in the Uniform Statewide Contract will address these issues. Under the MN DIP, Solar*Rewards customers now need to sign the Uniform Statewide Contract and/or the MN DIA. Par. 2.c is now par. 2.a. Note that in the corresponding petition in 13-1015 we seek additional changes to the new proposed par. 2.a to match the changes we are seeking in that petition to sheet 34. What had been par. 2.d is now par. 2.b.
Sec. 9, 49.02	All	16-521	This new sheet for the third generation contract roughly corresponds to Sheet 35. What had been pars. 2.e and 2.f on Sheet 35 were not included on Sheet 49.02 because they relate to interconnection rules covered by MN DIP or compensation rules covered by the Uniform Statewide Contract.
Sec. 9, 49.03	All	16-521	This new sheet for the third generation contract roughly corresponds to Sheet 36. What had been par. 4.i on Sheet 36 was marked “[Intentionally left blank]” and has not been included on Sheet 49.03. The remaining paragraphs 4.j and 4.k from Sheet 36 were renamed pars. 4.i and 4.j on Sheet 49.03.
Sec. 9, 49.04	All, and 5.b	16-521	<p>This new sheet for the third generation contract roughly corresponds to Sheet 37.</p> <p>Edits were made to par. 5.b to reflect that the Uniform Statewide Contract and the MN DIP controls the interconnection. So, for the production meter, the Uniform Statewide Contract along with the associated Rate Code would determine the monthly metering rate that the customer would pay where a production meter is installed as identified in the MN DIP Section 5.</p> <p>An edit was also made to par. 5.c to point to the Uniform Statewide Contract for describing how compensation for net energy is determined.</p>
Sec. 9, 49.05	All	16-521	The entirety of provisions on Sheets 38 and 39 do not apply to the third generation contract and accordingly are not included in the third generation contract as they set forth interconnection standards. This new sheet for the third generation contract roughly corresponds to Sheets 40 through 41. From sheet 40, the only definition that was kept was for RECs as the other definitions apply to interconnection issues. Also, pars. 5.m, 5.n., and 5.o from sheet 40 were not kept for similar reasons. From sheet 41, pars. 5.q., 5.r., 5.s., and 5.v., were similarly not kept. All remaining paragraph numbers have been re-labeled to reflect the removal of many paragraphs and so that the third generation contract will have consecutively numbered paragraphs.

**Annotations to Xcel Energy Redlines – Sections 7, 9 and 10 – Docket No. 18-714**

<b>Section and Sheet #</b>	<b>Par. #</b>	<b>Associated Docket</b>	<b>Notes</b>
Sec. 9, 49.06	All	16-521	This new sheet for the third generation contract roughly corresponds to Sheet 42. From Sheet 42, pars. 6.a, 6.b., 6.c., 6.d., and the first portion of 6.e were not included on Sheet 49.06 because they address interconnection issues that are now covered by the MN DIP. The remaining portion of 6.e from Sheet 42 was relabeled as par. 6 on Sheet 49.06.
Sec. 9, 49.07	All	16-521	This new sheet for the third generation contract corresponds to Sheet 43.
Sec. 9, 49.08	All	16-521	This new sheet for the third generation contract corresponds to Sheet 44.
Sec. 9, 49.10	All	16-521	This new sheet for the third generation contract corresponds to Sheet 46.
Sec. 9, 49.11	All	16-521	This new sheet for the third generation contract corresponds to Sheet 47.
Sec. 9, 49.12	All	16-521	This new sheet for the third generation contract corresponds to Sheet 48.
Sec. 9, 50-59			Added notation: (CLOSED TO NEW APPLICANTS AS OF June 17, 2019) This is the date the MN DIP is planned on going into effect. Tariff sheets 50-59 are for Community Solar Gardens that participate in the Solar*Rewards incentive, but whose application predates June 17, 2019. Tariff sheets 50-59 would not apply to new applications filed under MN DIP. The proposed new tariff sheets 59.01 – 59.10 would apply to Community Solar Gardens that participate in the Solar*Rewards incentive, but whose application is submitted on or after June 17, 2019.
Sec. 9, 59.01-59.10			These pages as a group would be applicable to applications under the Solar*Rewards Community program that are subject to the MN DIP and that also would receive a Solar*Rewards incentive. These pages roughly correspond to Sheets 50-59, but have edits to reflect that the MN DIP applies.
Sec. 9, 59.02			What had been par. 2.f from Sheet 51 has not been included on Sheet 59.02 because that topic of when the Company can stop providing electricity is addressed in the MN DIP and the associated technical requirements.
Sec. 9, 59.03-59.04	4.e and 5.b		This corresponds with Sheets 52-53. Edits to 5.b provide clarification as to what version of the Standard Contract for Solar*Rewards Community applies.



**Annotations to Xcel Energy Redlines – Sections 7, 9 and 10 – Docket No. 18-714**

Section and Sheet #	Par. #	Associated Docket	Notes
Sec. 9, 59.06	6.b and 6.d		What had been in par. 6.b and the first half of par. 6.e from Sheet 55 have not been included on Sheet 59.05 because the topics of liability for personal injury and property damage, and the related issue of indemnity are addressed in the MN DIP which will govern here. Pars. 6.c., 6.d., and 6.e., from Sheet 55 have been renumbered on Sheet 59.05 as pars. 6.b., 6.c., and 6.d.
Sec. 9, 61	6	16-521	This adds a new par. 6 to Sheet 61. This is part of the form to assign the S*R contract. This form applies to a first, second, or third generation S*R contract. However, with the third generation contract no longer serving as the interconnection agreement, the new par. 6 details that where the MN DIA has been signed, then the tariffed Assignment of Minnesota Distributed Energy Resource Interconnection Agreement (MN DIA) needs to be signed by Assignor, Assignee and Xcel Energy. If the Uniform Statewide Contract has also been signed pertaining to PV System, then the assignee and Xcel Energy also need to sign a new Uniform Statewide Contract pertaining to the PV System that is the subject of the Solar*Rewards contract. However, no additional engineering review fees or costs shall be applied to the customer for the signing of this Uniform Statewide Contract if the new contract is merely replacing a similar contract for the same PV system. The effective date of the newly signed Uniform Statewide Contract shall coincide with the cancellation date of the prior Uniform Statewide Contract.
Sec. 9, 64		16-521	Added definition of Deemed Complete and Mechanical Completion - provides for different definitions of these terms depending on whether the application is subject to the MN DIP.
Sec. 9, 66.1		16-521	Clarifying language added as to what fees apply.
Sec. 9, 67-67.1		16-521	Edits made to Sheets 67-67.1 to make clear that these provisions on “Application to the Program” only apply to Applications that are not subject to the MN DIP. The provisions on “Application to the Program” that apply to applications that are subject to the MN DIP are on new Sheets 67.2 and 67.3.

**Annotations to Xcel Energy Redlines – Sections 7, 9 and 10 – Docket No. 18-714**

Section and Sheet #	Par. #	Associated Docket	Notes
Sec. 9, 67.2 - 67.3		16-521	<p>These are new sheets and are based on the content of Sheets 67-67.1. The difference is that these new sheets only apply to applications that are subject to the MN DIP. Here are the differences between the provisions on these two sets of tariff sheets:</p> <ul style="list-style-type: none"> <li>- The numbered sub-paragraphs have been deleted as they do not apply under MN DIP.</li> <li>- First paragraph following the now-removed numbered paragraphs was modified to state that the interconnection application will be subject to the MN DIP. If at any time the application is no longer valid under the MN DIP, then the application to the program shall be considered to be withdrawn and no longer valid. Examples are provided as to when under the MN DIP process an application is no longer valid.</li> <li>- Removes the concept of Expedited Ready as that concept is not part of MN DIP. It provides for a 24 month timeline to achieve Mechanical Completion following signing of the MN DIA – instead of 24 months from being Deemed Complete. It also removes provision that an applicant loses its queue position as this would conflict with MN DIP. Kept provision that an application cannot proceed as a garden if it does not achieve Mechanical Completion within 24 months.</li> </ul>
Sec. 9, 68 – 68.16			<p>Added header to each page to clarify that these additional terms and conditions only apply to applications that are *not* subject to the MN DIP.</p>

**Annotations to Xcel Energy Redlines – Sections 7, 9 and 10 – Docket No. 18-714**

Section and Sheet #	Par. #	Associated Docket	Notes
Sec. 9, 68.17 – 68.21		16-521	<p>These sheets roughly correspond to sheets 68 – 68.16, but have been modified to show the additional terms and conditions only that apply to applications that are subject to the MN DIP.</p> <ul style="list-style-type: none"> <li>- Section 1, Definitions, removed the following definitions as they are not used for applications under the MN DIP: Engineering scoping study, Interconnection Agreement Time Line, and Initial Revised Effective Date. Also removed definitions for Study Queue and Study Queue Position as these concepts are addressed under the MN DIP. The definition of Initial Application Completeness was modified to align with the MN DIP process for being deemed complete.</li> <li>- Section 2. Modification to last sentence. The process of scaling down needs to comply with the MN DIP.</li> <li>- Section 3. removed as the concept of Expedited Ready does not apply under the MN DIP.</li> <li>- Section 4. Par. a removed as this only applied in 2015. Minor edits to remainder.</li> <li>- Sections 5, 6 and 7 – removed as the processing of the interconnection application is governed by the MN DIP process.</li> <li>- Section 8 – removed as this is not applicable to applications that are subject to the MN DIP.</li> <li>- Section 9 – removed as the Independent Engineer process does not apply under the MN DIP.</li> <li>- Section 10 – removed as the capacity screen offered here does not apply under the MN DIP.</li> <li>- Section 11 – removed as special provisions on engineering communication do not apply under the MN DIP.</li> <li>- Section 13 – the topic of prohibiting swapping queue positions is removed, as swapping is not allowed under the MN DIP.</li> <li>- Section 15 – removed as under MN DIP there is no Expedited Ready term, and consequences of not following MN DIP rules are set forth in the MN DIP and new tariff sheets 67.2 and 67.3.</li> </ul>
Sec. 9, 69.1		16-521	Redlines to Standard Contract to point to Deemed Complete as defined on tariff sheet 64.
Sec. 9, 71		16-521	Added word “applicable” to Interconnection Agreement in Section 10 as the MN DIA will also be in Section 10. Also added definitions for MN DIP and MN DIA.

**Annotations to Xcel Energy Redlines – Sections 7, 9 and 10 – Docket No. 18-714**

Section and Sheet #	Par. #	Associated Docket	Notes
Sec. 9, 75		16-521 13-867	Similar edits as to sheet 71 with the use of the term “applicable”. Also, provides that the Interconnection Agreement shall end 25 years after the Date of Commercial Operation to match wording on sheet 87, and removed other wording tied to the prior version of the Section 10 tariff. Added language that certain Additional Terms and Conditions apply for applications not subject to the MN DIP, and specify the corresponding terms that do apply if the application is subject to the MN DIP.
Sec. 9, 76		16-521	Removed provisions in par. 6.D regarding timing of completion of the garden. Reason to remove is that these exact same provisions are already on Sheet 67 and 67.3, and these only pertain to the time period before the parties would be authorized to sign the Standard Contract for Solar*Rewards Community. And, added language to clarify which of the additional conditions apply to applications not subject to the MN DIP and which apply to applications that are subject to the MN DIP
Sec. 9, 77	6.H 6.I		Removed provisions on application fee and deposit as those issues are addressed prior to the time that the Standard Contract for Solar*Rewards Community would be signed. These issues are addressed on other tariff sheets.
Sec. 9, 87		16-521	Par. 15. (Miscellaneous) points to and incorporates certain standard contract provisions as set forth in the Interconnection Agreement. There are redlines so that where an application is subject to the MN DIP, the applicable provisions from the MN DIA now apply.

**Annotations to Xcel Energy Redlines – Sections 7, 9 and 10 – Docket No. 18-714**

<b>Annotations to Xcel Energy Redlines Section 10</b>			
<b>Sheet #</b>	<b>Par. #</b>	<b>Associated Docket</b>	<b>Notes</b>
Sec. 10, TOC-1			Changes to the Table of Contents
Sec. 10, 73 - 74		16-521	<p>Under the <b>Application</b> section, describes where the MN DIP/MN DIA applies, and where the prior process applies.</p> <p>In the <b>Studies</b> section, removed language that is specific to the prior process. The specificity of the removed language is not needed and the end result is the same for those applications subject to the prior process.</p> <p>In the Contracts section, removed language that is specific to the prior process. The specificity of the removed language is not needed and the end result is the same for those applications subject to the prior process. Also, made the 20 year limitation specific to those applications not subject to the MN DIP or MN DIA since the MN DIP and MN DIA do not have such a restriction.</p>
Sec. 10, 78	6	16-521	Removed language that applies to the prior process only, this information is unnecessary here.
Sec. 10, 78	8	16-521	Power factor settings are being addressed in the MN Technical Requirements, and this would be applicable to applications subject to the MN DIP or MN DIA. Wording change reflects this.
Sec. 10, 79	9	16-521	Added language to have the MN Technical Requirements apply.
Sec. 10, 80	Note 1	16-521	Under <b>Typical Costs for Meter Reading and Billing</b> , added language to specify that this tariff reference applies to the prior process only.
Sec. 10, 83		16-521	Edits to clarify the exact documents that are being referenced and when they apply.
Sec. 10, 163-287		16-521	See separate Attachments “C”, “D”, and “E” to the petition in Docket No. 18-714 for redline documents showing changes to the November 30, 2018 version of the MN DIP, MN DIA and Assignment of MN DIA form to what is in these tariff sheets.

State of Minnesota  
**Distributed Energy Resources Interconnection  
Process  
(MN DIP)**

v.2.3

**(As adopted for Northern States Power Company)**

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**Foreword**

The Minnesota Public Utilities Commission is charged by Minnesota Statute §216B.1611 to establish generic, statewide standards for the interconnection and parallel operation of distributed energy resources<sup>1</sup> of no more than 10 MW. ~~These~~ ~~In~~ ~~updating~~ Minnesota's interconnection standards, ~~we~~ strive to:

- 1) Establish a practical, efficient interconnection process that is easily understandable for everyone involved;
- 2) Maintain a safe and reliable electric system at fair and reasonable rates;
- 3) Give maximum possible encouragement of distributed energy resources consistent with protection of the ratepayers and the public;
- 4) Be consistent statewide and incorporate newly revised national standards;
- 5) Be technology neutral and non-discriminatory.

At a minimum, these standards must:

- 1) To the extent possible, be consistent with industry and other federal and state operational and safety standards;
- 2) Provide for the low-cost, safe, and standardized interconnection of distributed energy resources;
- 3) Take into account differing system requirements and hardware; as well as, the overall demand load requirements of individual utilities;
- 4) Allow for reasonable terms and conditions, consistent with the cost and operating characteristics of the various technologies, so that a utility can reasonably be assured of the reliable, safe and efficient operation of the interconnected equipment;
- 5) Establish a standard interconnection agreement that sets forth the contractual terms under which a company and customer agree that one or more facilities may be interconnected with the company's utility system; and standard applications for interconnection and parallel operation with the utility system.

This standards document is modelled after the Federal Energy Regulatory Commission's Small Generator Interconnection Process (FERC SGIP), and explains the process to interconnect Distributed Energy Resources for parallel operation with the Area Electrical Power System (Area EPS); including templates for applications and study agreements. There are three companion documents: 1) Minnesota Distributed Energy Resource Interconnection Agreement (MN DIA);

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<sup>1</sup> "Distributed Energy Resources" (DER) is emerging terminology used to capture both traditional "distributed generation" and storage technologies; however, this term is not currently defined in Minnesota statute or rules, and at times the Commission applies it to a broader category that includes demand-side management (controlling load like air conditioners or water heaters) and, in some cases, even energy efficiency and electric vehicles. For this document, the definition is consistent with IEEE 1547 and limited to generation and storage, and does not include DER that behave solely as load.



2) Minnesota Distributed Energy Resource Technical Interconnection and Interoperability Requirements (MN ~~Technical Requirements or Minnesota Technical Requirements~~<sup>DTHR</sup>)<sup>2</sup>; and until updated or replaced 3) Attachment 6 Rates from the statewide interconnection standards adopted in 2004 (September 28, 2004 Order in E-999/CI-01-1023.)

~~The Commission is grateful to the participants of the Distributed Generation Workgroup comprised of representatives of Minnesota's utilities, distributed energy resource industries, and consumers who informed this update of the state's interconnection standards. As these standards go into effect and more distributed energy resources interconnect with utility systems, the Commission expects this to be a living document.~~

## Section 1. Application

### 1.1 Applicability

1.1.1 The Minnesota Distributed Energy Resources Interconnection Process (MN DIP) applies to any Distributed Energy Resource (DER) no larger than 10 MW interconnecting to, and operating in parallel with, an Area EPS distribution system in Minnesota.<sup>3</sup> See Minnesota Technical Requirements for more detail on what constitutes parallel operation. For the applicable interconnection process for DERs larger than 10 MW interconnected to, and operated in parallel with, an Area EPS distribution system in Minnesota, contact the Area EPS for details on the applicable interconnection process. The exception is Distributed Energy Resource interconnections that are subject to Federal Energy Regulatory Commission (FERC) jurisdiction.<sup>4</sup>

1.1.1.1 An application to interconnect a certified<sup>5</sup>, inverter-based DER no larger than 20 kilowatts (kW) shall be evaluated under the Section 2 Simplified Process.

1.1.1.2 An application to interconnect a DER shall be evaluated under the Section 3 Fast Track Process if the eligibility requirements of Section 3.1 Applicability

1.1.1.3 An application to interconnect a DER that does not meet the Simplified Process or Fast Track Process eligibility requirements, or does not pass the review as described in either process, shall be evaluated under the Study Process.

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<sup>2</sup> See MN DIP Attachment 4: Certification Codes and Standards regarding statewide technical requirements in the interim between adoption of MN DIP and adoption of an updated MN ~~Technical Requirements~~<sup>DTHR</sup>.

<sup>3</sup> [Minnesota Statute §216B.1611](#)

<sup>4</sup> The Federal Regulation and Development of Power Act ([16 U.S. Code Subchapter II](#)) outlines federal regulation of wholesale sales and transmission in interstate commerce and state regulation of generation, distribution, and retail sales.

<sup>5</sup> See Attachment 4 and Attachment 5 for certification criteria.

- 1.1.1.4 Attachment 8 contains flow charts that provide an overview of the Simplified Process, the Fast Track Process, and the Study Process.
- 1.1.1.5 Prior to submitting an Interconnection Application, the Interconnection Customer may ask the Area EPS Operator's Interconnection Coordinator whether the proposed interconnection is subject to these procedures. The Area EPS Operator shall respond within fifteen (15) Business Days.
- 1.1.2 Capitalized terms used herein shall have the meanings specified in the Glossary of Terms or the body of these procedures. All references to DER Nameplate Rating or maximum capacity as described in 5.14.3<sup>6</sup> herein are in alternating current (AC).
- 1.1.3 Neither these procedures nor the requirements included hereunder unless by mutual agreement of the Area EPS Operator and the Interconnection Customer apply to DERs interconnected, approved for interconnection or Interconnection Applications submitted to by the Area EPS Operator prior to June 17, 2019, and later deemed complete (provided these applications are later deemed complete following any applicable revisions no later than 60 days following this date). These procedures and the requirements hereunder shall apply to applications to modify existing DERs if the application to modify is submitted on or after June 17, 2019.
  - 1.1.3.1 Nothing in this MN DIP affects an Interconnection Customer's Queue Position assigned before the effective date of this MN DIP. The Parties agree to complete work on any interconnection study agreement executed prior to the effective date of this MN DIP in accordance with the terms and conditions of that interconnection study agreement. Any new studies or other additional work will be completed pursuant to this MN DIP.
- 1.1.4 Infrastructure security of electric system equipment and operations and control hardware and software is essential to ensure day-to-day reliability and operational security. All public utilities are expected to meet basic standards for electric system infrastructure and operational security, including physical, operational, and cyber-security practices.
- 1.1.5 References in these procedures to an Interconnection Agreement are to the Uniform Statewide Contract or Minnesota Distributed Energy Resource Interconnection Agreement (MN DIA).
  - 1.1.5.1 The Uniform Statewide Contract ([Minn. R. 7835.9910](#)) replaces the need to use the MN DIA if all of the following conditions

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<sup>6</sup> See Minnesota Technical Requirements for more detail on when to apply Nameplate Rating or a limited maximum capacity as defined in 5.14.3.

are met and the Interconnection Customer does not request the MN DIA:

- 1.1.5.1.1 Certified equipment
- 1.1.5.1.2 20 kW<sub>ac</sub> or less of a qualifying DER Capacity
- 1.1.5.1.3 No Area EPS system modifications are required to accommodate the DER;
- 1.1.5.1.4 Signed Uniform Statewide Contract Attachment 1: Pre-Application Report Request Form

Requests for an Interconnection Pre-Application Report shall include the information identified in Sections 1.4.1.1 through 1.4.1.8 of the Minnesota Distributed Energy Resource Interconnection Process (MN DIP) (and as provided in the fields below) to clearly and sufficiently identify the location of the proposed Point of Common Coupling and relevant project details.

Additionally, a non-refundable processing fee of \$300 is required as specified in Section 1.4.1 of the MN DIP.

Upon receipt of a complete Request Form (including site map) and processing fee, the Area EPS Operator shall provide a report containing as much of the data described in Section 1.4.2 as is pre-existing and available within 15 business days. A Pre-Application Report request does not obligate the Area EPS Operator to conduct a study or other analysis of the proposed project if data is not available.

1. Requestor Contact Information:

Name: \_\_\_\_\_  
Company Name (if applicable): \_\_\_\_\_  
Street Address: \_\_\_\_\_  
City/State/Zip: \_\_\_\_\_  
Phone Number: \_\_\_\_\_  
Email Address: \_\_\_\_\_

2. Project Information:

a) Project Name: \_\_\_\_\_

b) Planned Equipment:

DER Nameplate Rating: \_\_\_\_\_ kW  
DER Type: Inverter based Other \_\_\_\_\_  
DER Number of Phases: Single Three  
Service Voltage (120/240 V, 277/480 V, etc.) : \_\_\_\_\_ V  
Stand-alone Generator (no onsite load)? Yes No  
Existing DER? Yes No  
Location of Existing DER (include county):  
\_\_\_\_\_

c) Proposed Point of Common Coupling:

Note: The proposed Point of Common Coupling shall be defined by all or some combination of the below information, enough to clearly identify the location of the Point of Common Coupling.

Street Address: \_\_\_\_\_

City/State/Zip Code: \_\_\_\_\_

County: \_\_\_\_\_

Cross streets: \_\_\_\_\_

Latitude (in degrees/minutes/seconds or 6 decimal places):  
\_\_\_\_\_

Longitude: \_\_\_\_\_

Meter number: \_\_\_\_\_

Utility equipment number (e.g. pole number): \_\_\_\_\_

Other identifying information: \_\_\_\_\_  
\_\_\_\_\_

d) An attached Site Map is required that shows the following:

- True north
- Proposed project location, including general area of project
- Proposed service point location
- Major roads, streets and/or highways

3. Requestor Signature:

I understand that the confidentiality provisions of MN DIP Section 5.9 apply to the contents of the Pre-Application Report. The MN DIP Section 5.9, states in part as follows:

*“Each Party shall hold in confidence and shall not disclose Confidential Information, to any person (except employees, officers, representatives and agents, who agree to be bound by this section). Confidential Information shall be clearly marked as such on each page or otherwise affirmatively identified. ... Each Party shall employ at least the same standard of care to protect Confidential Information obtained from the other Party as it employs to protect its own Confidential Information. ... Each Party is entitled to equitable relief, by injunction or otherwise, to enforce its rights under this provision to prevent the release of Confidential Information without bond or proof of damages, and may seek other remedies available at law or in equity for breach of this provision.”*

I understand that 1) the existence of “Available Capacity” in no way implies that an interconnection up to this level may be completed without impacts since there are many variables studied as part of the interconnection review process, 2) the distribution system is dynamic and subject to change and 3) data provided in the Pre-Application Report may become outdated and not useful at the time of submission of the complete Interconnection Request.

Name (type or print): \_\_\_\_\_

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

Pre-Application Report requests shall be submitted with attachments to the Company through its online portal available at [www.xcelenergy.com](http://www.xcelenergy.com) or other applicable URL. Only if the online portal is unavailable submit to Distributed Energy Resources at [MNDER@xcelenergy.com](mailto:MNDER@xcelenergy.com)

Fees shall be submitted online through the online application portal or Xcel Energy, Attn: Distributed Energy Resources, at P.O.Box 59 Minneapolis MN 55440-0059.

- 1.1.5.1.5 Attachment 2: Simplified Application Form  
Attachment 2: Simplified Application
- 1.1.5.1.6 The Area EPS Operator may propose in its tariff an increase to the size threshold for the application of the Uniform Statewide Contract as a replacement for the MN DIA in its tariff. There may also be situations where the Interconnection Customer would need to sign both the Uniform Statewide Contract and the MN DIA; such as, where the Nameplate Rating of the system is above the size threshold where the Uniform Statewide Contract replaces the MN DIA but the DER qualifies for net metering ([Minn. Stat. §216B.164](#) and [Minn. R. Ch. 7835](#)) under the Uniform Statewide Contract.
- 1.1.5.2 The reference to Interconnection Agreement also applies when the Area EPS Operator and Interconnection Customer modify MN DIA with Commission approval.
- 1.1.6 The Area EPS Operator and Interconnection Customer may jointly seek Commission approval of an amendment to the MN DIA for use between them for a specific Interconnection Application in the following ways:
  - 1.1.6.1 File a Petition with the Commission, or
  - 1.1.6.2 File a Notice with the Commission of the proposed amendment. The Notice should include a copy of the amendment showing in redline format how the amendment would alter the MN DIA between the Area EPS Operator and Interconnection Customer for the Interconnection Application at issue. If no objection or notice of intent to object is filed within 30 days, then the proposed amendment would be considered to be approved by the Commission. If there is a timely filed objection or notice of intent to object, then the proposed amendment would not be considered to have been approved by the Commission and could only be used if the Commission subsequently issues a written order authorizing its use.
- 1.1.7 Commission approval of an amendment to the Interconnection Agreement is not needed where such an amendment only addresses updating or correcting: 1) information specified in the Interconnection Application; 2) exhibits or attachments to the Interconnection Agreement as long as they are not additional agreements or requirements not covered in the MN DIP or MN Technical Requirements; or 3) information provided in the blank lines to the MN DIA or Uniform Statewide Contract forms.

## 1.2 Online Applications and Electronic Submission

1.2.1 ~~The Each~~-Area EPS Operator shall allow Pre-Application Report requests and Interconnection Applications to be submitted electronically; such as, through the Area EPS Operator's website or via email. The Area EPS Operator may allow the Interconnection Agreement to be submitted electronically.

1.2.1.1 The Area EPS Operator may allow for electronic signatures to be used for the Pre-Application Report request, Interconnection Application and related agreements, including the Interconnection Agreement, and forms.

1.2.2 ~~The Each~~-Area EPS Operator shall dedicate a page on ~~its their~~ website or direct customers to a website with generic information on the MN DIP that the Area EPS Operator finds comports with its process. The relevant information that shall be available to the Interconnection Customer via a website includes:

1.2.2.1 The MN DIP and attachments in an electronically searchable format;

1.2.2.2 The Area EPS Operator's Interconnection Application and all associated forms in a format that allows for electronic entry of data;

1.2.2.3 The Uniform Statewide Contract and the Area EPS Operator's tariff version of the MN DIA;

1.2.2.4 Example documents; including, at a minimum, an example one-line diagram with required labels; and

1.2.2.5 Contact information for the Area EPS Operator's DER interconnection coordinator(s) and submission of Interconnection Applications, including email and phone number.

## 1.3 Communications

1.3.1 The Area EPS Operator shall designate a DER interconnection coordinator(s) and this person or persons shall serve as a single point of contact from which general information on the application process and on Affected System(s) can be obtained through informal request from the Interconnection Customer presenting a proposed project for a specific site. The name, telephone number, and e-mail address of such contact employee or office shall be made available on the Area EPS Operator's Internet website in accordance with section 1.2.2.5. ~~The Some~~-Area EPS Operators may have several DER Interconnection Coordinators assigned. The DER Interconnection Coordinator shall be available to provide coordinator assistance with the Interconnection Customer, but is not responsible to directly answer or resolve all of the issues involved in review and implementation of the interconnection process and standards. Upon request, electric system information

provided to the Interconnection Customer should include relevant system study results, interconnection studies, and other materials useful to an understanding of an interconnection at a particular point on the Area EPS Operator's System, to the extent such provision does not violate the privacy policies of the Commission, confidentiality provisions of prior agreements or critical infrastructure requirements. This listing does not include a Pre-Application Report under Section 1.4. The Area EPS Operator shall comply with reasonable requests for such information.

- 1.3.2 The Interconnection Customer may designate, on the Interconnection Application or in writing after the Application has been submitted, an Application Agent to serve as the single point of contact to coordinate with the DER Interconnection Coordinator on their behalf. Designation of an Application Agent does not absolve the Interconnection Customer from signing interconnection documents and the responsibilities outlined in the MN DIP and Interconnection Agreement.
- 1.3.3 Engineering Communication: Upon request of either party or the Commission, for the purpose of exchanging information regarding an active Interconnection Application, the Area EPS Operator and the Interconnection Customer shall each identify one point of contact with technical expertise for their organizations.

#### 1.4 Pre-Application Report

1.4.1 In addition to the information described in section 1.3.1, which may be provided in response to an informal request, an Interconnection Customer may submit a formal written request form along with a non-refundable fee of up to \$300 for a Pre-Application Report on a proposed project at a specific site. The Area EPS Operator shall provide the data described in section 1.4.2 to the Interconnection Customer within fifteen (15) Business Days of receipt of the completed request form and payment of the up to \$300 fee. The Pre-Application Report produced by the Area EPS Operator is non-binding, does not confer any rights, and the Interconnection Customer must still successfully apply to interconnect to the Area EPS Operator's system. The written Pre-Application Report request form shall include the information in sections 1.4.1.1 through 1.4.1.8 below to clearly and sufficiently identify the location of the proposed Point of Common Coupling.

- 1.4.1.1 Project contact information, including name, address, phone number, and email address.
- 1.4.1.2 Project location (street address with nearby cross streets and town). Interconnection Customer may choose to also provide an aerial map or GPS coordinates for increased accuracy.
- 1.4.1.3 Meter number, pole number, or other equivalent information identifying proposed Point of Common Coupling, if available.
- 1.4.1.4 DER type(s) (e.g., solar, wind, combined heat and power, storage, solar + storage, etc.).



- 1.4.1.5 Nameplate Rating (alternating current kW).
  - 1.4.1.6 Single or three phase DER configuration.
  - 1.4.1.7 Stand-alone generator (no onsite load, not including station service – Yes or No?).
  - 1.4.1.8 Is new service requested? Yes or No? If there is existing service, include the customer account number, site minimum and maximum current or proposed electric loads in kW (if available) and specify how the load is expected to change.
- 1.4.2 Using the information provided in the Pre-Application Report request form in section 1.4.1, the Area EPS Operator will identify the substation/area bus, bank or circuit likely to serve the proposed Point of Common Coupling. This selection by the Area EPS Operator does not necessarily indicate, after application of the screens and/or study, that this would be the circuit the project ultimately connects to. The Interconnection Customer must request additional Pre-Application Reports if information about multiple Points of Common Coupling is requested. Subject to 1.4.3, the Pre-Application Report will include the following information:
- 1.4.2.1 Total capacity (in megawatts (MW)) of substation/area bus, bank or circuit based on normal or operating ratings likely to serve the proposed Point of Common Coupling.
  - 1.4.2.2 Existing aggregate generation capacity (in MW) interconnected to a substation/area bus, bank or circuit (i.e., amount of generation online) likely to serve the proposed Point of Common Coupling.
  - 1.4.2.3 Aggregate queued generation capacity (in MW) for a substation/area bus, bank or circuit (i.e., amount of generation in the queue) likely to serve the proposed Point of Common Coupling.
  - 1.4.2.4 Available capacity (in MW) of substation/area bus or bank and circuit likely to serve the proposed Point of Common Coupling (i.e., total capacity less the sum of existing aggregate generation capacity and aggregate queued generation capacity).
  - 1.4.2.5 Substation nominal distribution voltage and/or transmission nominal voltage if applicable.
  - 1.4.2.6 Nominal distribution circuit voltage at the proposed Point of Common Coupling.
  - 1.4.2.7 Approximate circuit distance between the proposed Point of Common Coupling and the substation.

- 1.4.2.8 Relevant line section(s) actual or estimated peak load and minimum load data, including daytime minimum load as described in section 3.4.4.1 below and absolute minimum load, when available.
  - 1.4.2.9 Whether the Point of Common Coupling is located behind a line voltage regulator.
  - 1.4.2.10 Number and rating of protective devices and number and type (standard, bi-directional) of voltage regulating devices between the proposed Point of Common Coupling and the substation/area. Identify whether the substation has a load tap changer.
  - 1.4.2.11 Number of phases available on the Area EPS medium voltage system at the proposed Point of Common Coupling. If a single phase, distance from the three-phase circuit.
  - 1.4.2.12 Limiting conductor ratings from the proposed Point of Common Coupling to the distribution substation.
  - 1.4.2.13 Whether the Point of Common Coupling is located on a spot network, grid network, or radial supply.
  - 1.4.2.14 Based on the proposed Point of Common Coupling, existing or known constraints such as, but not limited to, electrical dependencies at that location, short circuit interrupting capacity issues, power quality or stability issues on the circuit, capacity constraints, or secondary networks.
- 1.4.3 The Pre-Application Report need only include existing data. A request for a Pre-Application Report does not obligate the Area EPS Operator to conduct a study or other analysis of the proposed DER in the event that data is not readily available. If the Area EPS Operator cannot complete all or some of a Pre-Application Report due to lack of available data, the Area EPS Operator shall provide the Interconnection Customer with a Pre-Application Report that includes the data that is available. The confidentiality provisions found in 5.9 apply to Pre-Application Reports.
- 1.4.4 The provision of information on “available capacity” pursuant to section 1.4.2.4 does not imply that an interconnection up to this level may be completed without impacts since there are many variables studied as part of the interconnection review process. The distribution system is dynamic and subject to change, and data provided in the Pre-Application Report may become outdated at the time of the submission of the complete Interconnection Application. Notwithstanding any of the provisions of this section, the Area EPS Operator shall, in good faith, include

data in the Pre-Application Report that represents the best available information at the time of reporting.

#### 1.5 Interconnection Application

1.5.1 The Interconnection Customer shall submit an Interconnection Application to the Area EPS Operator, together with the processing fee or deposit specified in the Interconnection Application. Additional fees or deposits for the interconnection process shall not be required, except as otherwise specified in these procedures. Application form templates are available in Attachment 2: Simplified Application Form and Attachment 3.

~~1.5.1~~ Attachment 2 and Attachment 3. The Area EPS Operator's tariff shall include specific fees for Simplified Process, Fast Track Process, and Study Process are consistent with:

1.5.1.1 The processing fee for the Simplified Process Application shall be ~~up to~~ \$100.

1.5.1.2 For certified, Fast Track Process eligible applications, the processing fee shall be ~~up to~~ \$100 + \$1/kW. For non-certified Fast Track Process eligible applications, the processing fee shall be ~~up to~~ \$100 + \$2/kW.

1.5.1.3 For an Interconnection Application that is not eligible or does not apply for Simplified Process or Fast Track Process, the processing fee shall be a down payment of not to exceed \$1,000 plus \$2.00 per kW toward the deposit required for the study(s) under Section 4 Study Process.

1.5.1.4 Interconnection Applications shall contain a single line diagram and site diagram. A signature from a professional engineer licensed in Minnesota shall be required when: 1) Certified equipment is greater than 250 kW; or 2) non-certified equipment is greater than 50 kW.

1.5.2 The Interconnection Application shall be date- and time-stamped upon initial and, if necessary, resubmission receipt. Unless Section 2 Simplified Process applies, the Interconnection Customer shall be notified of receipt by the Area EPS Operator within three (3) Business Days of receiving the Interconnection Application. The Area EPS Operator shall notify the Interconnection Customer within ten (10) Business Days of the receipt of the Interconnection Application as to whether the Interconnection Application is complete or incomplete. If the Interconnection Application is incomplete, the Area EPS Operator shall provide along with the notice that the Interconnection Application is incomplete, a written list detailing all information that must be provided to complete the Interconnection Application. The Interconnection Customer will have ten (10) Business Days after receipt of the notice to submit all of the listed information. If the Interconnection Customer does not provide the listed information within the deadline the Interconnection Application will be deemed withdrawn. An Interconnection Application will be deemed complete upon submission of documents adhering to Minnesota Technical Requirements and containing the listed information to the Area EPS Operator. The Area EPS Operator will have five (5) Business Days to review the additional material and notify the Interconnection Customer if the Interconnection Application is deemed complete. The date-and time- stamp of receipt of a complete Interconnection Application shall be accepted as the qualifying date for the purposes of establishing queue position as described in section 1.8.

1.6 Modification of the Interconnection Application or a DER Interconnection

1.6.1 At any time after an Interconnection Application is deemed complete, including after the receipt of Fast Track, supplemental review, system impact study, and/or facilities study results, the Interconnection Customer, the Area EPS Operator, or the Affected System owner may identify modifications to the planned Interconnection that may improve the costs and benefits (including reliability) of the Interconnection, and/or the ability of the Area EPS Operator to accommodate the Interconnection. The Interconnection Customer shall submit to the Area EPS Operator, in writing, all proposed modifications to any information provided in the Interconnection Application. Neither the Area EPS Operator nor the Affected System operator may unilaterally modify the Interconnection Application.

1.6.2 Within ten (10) Business Days of receipt of a proposed modification, the Area EPS Operator shall evaluate whether a proposed modification to either an Interconnection Application or an existing DER Interconnection constitutes a Material Modification. If applicable, the Area EPS Operator shall make Reasonable Effort to consult with the Affected System owner. The definition in Glossary of Terms includes examples of what does and does not constitute a Material Modification.

1.6.2.1 If the proposed modification is determined to be a Material Modification, then the Area EPS Operator shall notify the Interconnection Customer in writing that the Customer may: 1) withdraw the proposed modification; or 2) proceed with a new Interconnection Application for such modification. The Interconnection Customer shall provide its determination in writing to the Area EPS Operator within ten (10) Business Days after being provided the Material Modification determination results. If the Interconnection Customer does not provide its determination, the Customer's Application shall be deemed withdrawn.

1.6.2.2 If the proposed modification is determined not to be a Material Modification, then the Area EPS Operator shall notify the Interconnection Customer in writing that the modification has been accepted and that the Interconnection Customer shall retain its eligibility for interconnection, including its place in the interconnection queue.

1.6.3 Any dispute as to the Area EPS Operator's determination that a modification constitutes a Material Modification shall proceed in accordance with the dispute resolution provisions in section 5.3 of these procedures.

1.6.4 Any modification to machine data, equipment configuration or to the interconnection site of the DER not agreed to in writing by the Area EPS Operator and the Interconnection Customer may be deemed a withdrawal of the Interconnection Application and may require submission of a new Interconnection

Application, unless proper notification of each Party by the other as described in sections 1.6.1 and 1.6.2.

## 1.7 Site Control

Documentation of site control must be submitted with the Interconnection Application. Site control may be demonstrated through providing documentation showing any of the following:

- 1.7.1 Ownership of, a leasehold interest in, or a right to develop a site for the purpose of constructing the DER;
- 1.7.2 An option to purchase or acquire a leasehold site for such purpose; or
- 1.7.3 An exclusivity or other business relationship between the Interconnection Customer and the entity having the right to sell, lease, or grant the Interconnection Customer the right to possess or occupy a site for such purpose; or
- 1.7.4 For DERs utilizing the Section 2 Simplified Process, proof of site control may be demonstrated by the site owner's signature on the Interconnection Application.

## 1.8 Queue Position

- 1.8.1 Queue Position is assigned by the Area EPS Operator based on when the Interconnection Application is deemed complete as described in section 1.5.2. The Queue Position of each Interconnection Application will be used to determine the cost responsibility for the Upgrades necessary to accommodate the interconnection. The Queue Position also establishes conditional interconnection capacity for an Interconnection Customer, contingent upon all requirements of the MN DIP and MN Technical Requirements being met.
- 1.8.2 Subject to the provisions in sections 1.5, 1.6, and 1.7, the DER shall retain the Queue Position assigned to their Interconnection Application throughout the review process for the purpose of determining cost responsibility and conditional interconnection capacity, including when moving through the processes covered by Section 2 Simplified Process and Section 3 Fast Track Process. Failure by the Interconnection Customer to meet the time frames outlined in these procedures or request a timeline extension shall result in a withdrawal of the Interconnection Application. The Area EPS Operator shall notify the Interconnection Customer of the missed time frame with an opportunity to request a timeline extension as defined in section 5.2.3 before the Interconnection Application is deemed withdrawn.
- 1.8.3 The Area EPS Operator shall maintain a single, administrative queue and may manage the queue by geographical region (i.e. feeder, substation, etc.) This administrative queue shall be used to address Interconnection Customer inquiries about the queue process. If the Area EPS Operator and the Interconnection Customer(s) agree, Interconnection Applications may be studied in clusters for the purpose of the system impact study; otherwise, they will be studied serially.

1.8.4 ~~The Each~~-Area EPS Operator ~~that has received at least forty (40) complete Interconnection Applications, including Simplified Process Applications, in a year~~ shall maintain a public interconnection queue, available in a sortable spreadsheet format on its website, which it shall update on at least a monthly basis unless no changes to the spreadsheet have occurred in that month. The date of the most recent update shall be clearly indicated.

- 1.8.4.1 At a minimum, the following shall be included in the public interconnection queue:
- 1.8.4.1.1 Application or Queue Number
  - 1.8.4.1.2 Date Application Deemed Complete
  - 1.8.4.1.3 Interconnection Process Track (Simplified, Fast Track, or Study Process)
  - 1.8.4.1.4 Proposed DER Capacity (Nameplate Rating unless limited as defined in 5.14.3)
  - 1.8.4.1.5 DER type (technology)
  - 1.8.4.1.6 Proposed DER Location by geographic region (i.e. by feeder or line section)
  - 1.8.4.1.7 Status of the Application's progress through the process (e.g. Initial Review, Supplemental Review, Facilities Study, Construction, Inspection, etc.)

## **Section 2. Simplified Process**

### **2.1 Applicability**

2.1.1 For Certified, inverter-based DERs with a DER Capacity of 20 kW ac or less: The Area EPS Operator shall comport with the Simplified Process, including the time frames described in that process. Simplified Process eligibility does not imply or indicate that a DER will pass the Initial Review Screens, failure to pass the screens will route the application to the Fast Track Process.

2.1.2 Certified Equipment – UL 1741 listing is a common form of DER inverter certification. See Attachment 4: Certification Codes and Standards and Attachment 5: Certification of Distributed Energy Resource Equipment.

### **2.2 Simplified Process Application Review Process**

The Interconnection Customer with an eligible DER shall complete the Simplified Process Application and submit it and the application processing fee to the Area EPS Operator. A Simplified Process Application template is provided in

- 2.2.1 Attachment 2: Simplified Application Form.
- 2.2.2 Within ten (10) Business Days of receipt of the Simplified Process Application, the Area EPS Operator shall acknowledge to the Interconnection Customer receipt of the Simplified Application, evaluate the Simplified Process Application for completeness, and notify the Interconnection Customer whether the Simplified Process Application is or is not complete, and, if not, identify what material is missing. The Area EPS Operator shall to the best of its ability identify all missing material and other errors or omissions at this time. The Interconnection Customer shall submit any additional material within five (5) Business Days of the Area EPS Operator's notice. The Area EPS Operator shall have an additional five (5) Business Days to review the additional material and notify the Interconnection Customer that the Simplified Process Application is complete.
- 2.2.3 The Area EPS Operator shall determine if the DER can be interconnected safely and reliably using the Initial Review Screens contained in the Fast Track Process at 3.2.1, and without construction of facilities by the Area EPS Operator. The Area EPS Operator has twenty (20) Business Days from receipt of a complete Simplified Process Application to complete this process and inform the Interconnection Customer of the results.

Unless the Area EPS Operator determines and demonstrates that the DER cannot be interconnected safely and reliably or requires construction of facilities by the Area EPS Operator, the Area EPS Operator approves the Application and provides the Interconnection Customer an executable Uniform Statewide Contract or MN DIA within five (5) days as described in sections 1.1.5.1 and 5.1.1.

If the Area EPS Operator determines the DER can be connected safely and reliably only with construction of facilities by the Area EPS Operator, the Area EPS Operator shall follow the procedures set forth in Section 3.2.2.

If the Area EPS Operator does not or cannot determine that the DER may be interconnected safely and reliably unless the Interconnection Customer is willing to consider minor modifications or further study, the Area EPS Operator shall follow the procedures set forth in Section 3.2.3.

### 2.3 Simplified Interconnection

- 2.3.1 ~~The~~ Interconnection Customer shall sign and return the Interconnection Agreement within thirty (30) Business Days<sup>1</sup> or may request an extension as described in Section 5.1.2 and 5.2. The Interconnection Customer must submit to the Area EPS Operator either 1) a signed copy of the Uniform Statewide Contract, if applicable, which serves as both the power purchase agreement and Interconnection Agreement; or 2) the Interconnection Customer must submit a signed Uniform Statewide Contract, if applicable, and a separate MN DIA as described in section 1.1.5.:

- 2.3.1.1 Upon receipt of the signed Interconnection Agreement, and then after fully executing it as provided for in Section 5.1.2, the Area EPS Operator shall schedule and execute appropriate construction of facilities, if necessary, which shall be completed prior to the Interconnection Customer returning the Certificate of Completion. If construction of facilities is required by the Area EPS Operator, the Area EPS Operator shall notify the customer upon completion of construction.

<sup>1</sup> The 30-day timeframe in this step originates from Section 5.1.2 and does not represent a new step or timeframe.



2.3.2 After installation, the Interconnection Customer returns the Certificate of Completion to the Area EPS Operator. Prior to parallel operation, and consistent with the MN DIP, the Area EPS Operator may inspect the DER for compliance with standards, which may include a witness test, and may schedule appropriate metering replacement, if necessary. The Area EPS Operator is obligated to complete the witness test, if required, within ten (10) Business Days of the receipt of the Certificate of Completion. If the Area EPS Operator does not inspect within ten (10) Business Days, the witness test is deemed waived.

2.3.3 Within three (3) Business Days of inspection or waiver of inspection, the Area EPS Operator shall notify the Interconnection Customer in writing that interconnection of the DER has permission to operate. If the witness test is not satisfactory, the Area EPS Operator has the right to disconnect the DER. The Interconnection Customer has no right to operate in parallel, except for optional testing not to exceed two hours, until permission to operate is granted by the Area EPS Operator.

**Section 3. Fast Track Process**

3.1 Applicability

3.1.1 The Fast Track Process is available to an Interconnection Customer proposing to interconnect a DER with the Area EPS Operator’s Distribution System if the DER capacity does not exceed the size limits identified in this Section, including the table below and does not qualify for the Section 2 Simplified Process. Fast Track eligibility does not imply or indicate that a DER will pass the Fast Track Initial Review Screens in 3.2.1 or the Supplemental Review screens in 3.4 below.

Fast Track eligibility for DERs is determined based upon the generator type, the size of the generator, voltage of the line, and the location of and the type of line at the Point of Common Coupling. All synchronous and induction machines must be no larger than 2 MW to be eligible for Fast Track Process consideration. The Fast Track Process size limits are included in the table below.

Fast Track Eligibility for Distributed Energy Resources		
Line Voltage	Fast Track Eligibility <sup>2</sup> Regardless of Location	Fast Track Eligibility for certified, inverter-based DER on a Mainline <sup>3</sup> and ≤ 2.5 Electrical Circuit Miles from Substation <sup>4</sup>
< 5 kV	≤ 500 kW	≤ 500 kW
≥ 5 kV and < 15 kV	≤ 1 MW	≤ 2 MW
≥ 15 kV and < 30 kV	≤ 3 MW	≤ 4 MW

<sup>2</sup> Synchronous and induction machines eligibility is limited to no more than 2 MW even when line voltage is greater than 15 kV.

<sup>3</sup> For purposes of this table, a Mainline is the three-phase backbone of a circuit. It will typically constitute lines with wire sizes of 4/0 American wire gauge, 266 kcmil, 336.4 kcmil, 397.5 kcmil, 477 kcmil and 795 kcmil.

<sup>4</sup> An Interconnection Customer can determine this information about its proposed interconnection location in advance by requesting a pre-application report pursuant to section 1.4.

$\geq 30$ kV and $\leq 69$ kV	$\leq 4$ MW	$\leq 5$ MW
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3.1.2 In addition to the size threshold, the Interconnection Customer’s proposed DER must meet the codes, standards, and certification requirements of Attachment 4 and Attachment 5 of these procedures, or the Area EPS Operator has reviewed the design or tested the proposed DER and is satisfied that it is safe to operate.

### 3.2 Initial Review

Within 15 Business Days after the Area EPS Operator notifies the Interconnection Customer it has received a complete Interconnection Application, the Area EPS Operator shall perform an initial review using the screens set forth below, notify the Interconnection Customer of the results; including copies of the analysis and data underlying the Area EPS Operator’s determinations under the screens.

The technical screens listed in this section shall not preclude the Area EPS Operator from seeking approval of tools that perform screening functions using different methodology given that the analysis is aimed at preventing the same voltage, thermal and protection limitations as the initial and supplemental review screens described below.

#### 3.2.1 Initial Review Screens

- 3.2.1.1 The proposed DER’s Point of Common Coupling must be on a portion of the Area EPS Operator’s Distribution System.
- 3.2.1.2 For interconnection of a proposed DER to a radial distribution circuit, the aggregated generation, including the proposed DER, on the circuit shall not exceed 15% of the line section annual peak load as most recently measured. A line section is that portion of an Area EPS Operator’s electric system connected to a customer bounded by automatic sectionalizing devices or the end of the distribution line. The Area EPS Operator may consider 100% of applicable loading (i.e., daytime minimum load for solar), if available, instead of 15% of line section peak load.
- 3.2.1.3 For interconnection of a proposed DER to the load side of network protectors, the proposed DER must utilize an inverter-based equipment package and, together with the aggregated other inverter-based DERs, shall not exceed the smaller of 5% of a network’s maximum load or 50 kW.<sup>5</sup>
- 3.2.1.4 The proposed DER, in aggregation with other DERs on the distribution circuit, shall not contribute more than 10% to the distribution circuit’s maximum fault current at the point on the high voltage (primary) level nearest the proposed Point of Common Coupling.
- 3.2.1.5 The proposed DER, in aggregate with other Distributed ~~Energy Resources~~ Energy Resources on the distribution circuit, shall not cause any distribution

<sup>5</sup> Network protectors are protective devices used on secondary networks (spot and grid networks) to automatically disconnect its associated transformer when reverse power flow occurs. Secondary networks are most often used in densely populated downtown areas.

protective devices and equipment (including, but not limited to, substation breakers, fuse cutouts, and line reclosers), or Interconnection Customer equipment on the system to exceed 87.5% of the short circuit interrupting capability; nor shall the interconnection be proposed for a circuit that already exceeds 87.5% of the short circuit interrupting capability.

- 3.2.1.6 Using the table below, determine the type of interconnection to a primary distribution line. This screen includes a review of the type of electrical service provided to the Interconnecting Customer, including line configuration and the transformer connection to limit the potential for creating over-voltages on the Area EPS Operator’s electric power system due to a loss of ground during the operating time of any anti-islanding function.

<b>Primary Distribution Line Type</b>	<b>Type of Interconnection to Primary Distribution Line</b>	<b>Result/Criteria</b>
Three-phase, three wire	3-phase or single phase, phase-to-phase	Pass screen
Three-phase, four wire	Effectively-grounded 3 phase or Single-phase, line-to-neutral	Pass screen

- 3.2.1.7 If the proposed DER is to be interconnected on single-phase shared secondary, the aggregate generation capacity on the shared secondary, including the proposed DER, shall not exceed 20 kW or 65% of the transformer nameplate rating.
- 3.2.1.8 If the proposed DER is single-phase and is to be interconnected on a center tap neutral of a 240 volt service, its addition shall not create an imbalance between the two sides of the 240 volt service of more than 20% of the nameplate rating of the service transformer.
- 3.2.1.9 If the proposed DER is single-phase and is to be interconnected to a three-phase service, its Nameplate Rating shall not exceed 10% of the service transformer nameplate rating.
- 3.2.1.10 If the DER’s Point of Common Coupling is behind a line voltage regulator<sup>6</sup>, the DER’s Nameplate Rating shall be less than 250 kW.

3.2.2 If the proposed interconnection passes the screens, or if the proposed interconnection fails the screens, but the Area EPS Operator determines that the DER may nevertheless be interconnected consistent with safety, reliability, and power quality standards, the Interconnection Application shall proceed as follows:

- 3.2.2.1 If the proposed interconnection requires no construction of facilities by the Area EPS Operator on its own system, the Area EPS Operator shall provide the Interconnection Customer an executed Interconnection Agreement within five (5) Business Days after the determination.

<sup>6</sup> This screen does not include substation voltage regulators.

- 3.2.2.2 If the proposed interconnection requires construction of any facilities, the Area EPS Operator shall notify the Interconnection Customer of such requirement when it provides the Initial Review results and copies of the analysis and data underlying the Area EPS Operator's determinations under the screens and either: 1) provide a good faith cost estimate; or 2) require a facilities study pursuant to 4.4.1. Within five (5) Business Days, the Interconnection Customer shall inform the Area EPS Operator if the Interconnection Customer elects to proceed with the proposed interconnection. If the Interconnection Customer makes such an election, the Area EPS Operator shall either provide: i) an Interconnection Agreement, along with a non-binding good faith cost estimate and construction schedule for such upgrades, within twenty (20) Business Days after the Area EPS Operator receives such an election or ii) a facilities study agreement pursuant to section 4.4.
- 3.2.3 If the proposed interconnection fails the screens, and the Area EPS Operator does not or cannot determine from the Initial Review that the DER may nevertheless be interconnected consistent with safety, reliability, and power quality standards unless the Interconnection Customer is willing to consider minor modifications or further study, the Area EPS Operator shall provide the Interconnection Customer the opportunity to attend a customer options meeting.

### 3.3 Customer Options Meeting

If the Area EPS Operator determines the Interconnection Application cannot be approved without either 1) supplemental review, other additional studies or actions; or 2) incurring significant cost to address safety, reliability, or power quality problems, the Area EPS Operator shall notify the Interconnection Customer of that determination and provide copies of all directly pertinent data and analyses underlying its conclusion, subject to confidentiality provisions in Section 5.9 and where applicable limited by privacy rules. Within ten (10) Business Days of the Area EPS Operator's determination, unless mutual agreement, the Area EPS Operator and Interconnection Customer shall schedule a customer options meeting with the Interconnection Customer to review possible facility modifications, screen analysis and related results to determine what further steps are needed to permit the DER to be connected safely and reliably. At the time of notification of the Area EPS Operator's determination, or at the customer options meeting, the Area EPS Operator shall:

- 3.3.1 Offer to perform a supplemental review in accordance with section 3.4 and provide a non-binding good faith estimate of the costs of such review; or
- 3.3.2 Obtain the Interconnection Customer's agreement to continue evaluating the Interconnection Application under the Section 4 Study Process.

### 3.4 Supplemental Review

- 3.4.1 To accept the offer of a supplemental review, the Interconnection Customer shall agree in writing and submit a deposit for the estimated costs of the supplemental review in the amount of the Area EPS Operator's good faith estimate of the costs of such review, both within fifteen (15) Business Days of the offer. If the written agreement and deposit have not been received by the Area EPS Operator within that timeframe, the Interconnection Application shall continue to be evaluated under the Section 4 Study Process unless it is withdrawn by the Interconnection Customer.
- 3.4.2 The Interconnection Customer may specify with the written agreement and deposit the order in which the Area EPS Operator will complete the supplemental review screens. The order specified shall be at the level of sections 3.4.4.1, 3.4.4.2, and 3.4.4.3.

- 3.4.3 The Interconnection Customer shall be responsible for the Area EPS Operator's actual costs for conducting the supplemental review. The Interconnection Customer shall pay any review costs that exceed the deposit within twenty (20) Business Days of receipt of the invoice or resolution of any dispute. If the deposit exceeds the invoiced costs, the Area EPS Operator will return such excess within twenty (20) Business Days of the invoice without interest.
- 3.4.4 Within thirty (30) Business Days following receipt of the deposit for a supplemental review, the Area EPS Operator shall: 1) perform a supplemental review using the screens set forth below; 2) notify in writing the Interconnection Customer of the results; and 3) include with the notification copies of the analysis and data underlying the Area EPS Operator's determinations under the screens. Unless the Interconnection Customer provided instructions for how to respond to the failure of any of the supplemental review screens below at the time the Interconnection Customer accepted the offer of supplemental review, the Area EPS Operator shall notify the Interconnection Customer following the failure of any of the screens, or if it is unable to perform the screen in this section within two (2) Business Days of making such determination to obtain the Interconnection Customer's permission to: 1) continue evaluating the proposed interconnection under this section 3.4.4; 2) terminate the supplemental review and continue evaluating the DER under Section 4 Study Process; or 3) terminate the supplemental review upon withdrawal of the Interconnection Application by the Interconnection Customer. The Interconnection Customer shall respond with its choice within five (5) Business Days of notification from the Area EPS Operator.

3.4.4.1 Minimum Load Screen: Where 12 months of line section minimum load data (including onsite load but not station service load served by the proposed DER) are available, can be calculated, can be estimated from existing data, or determined from a power flow model, the aggregate DER capacity on the line section is less than 100% of the minimum load for all line sections bounded by automatic sectionalizing devices upstream of the proposed DER. If minimum load data is not available, or cannot be calculated, estimated or determined, the Area EPS Operator shall include the reason(s) that it is unable to calculate, estimate or determine minimum load in its supplemental review results notification under section 3.4.4.

3.4.4.1.1 The type of generation used by the proposed DER will be taken into account when calculating, estimating, or determining circuit or line section minimum load relevant for the application of screen 3.4.4.1. Solar photovoltaic (PV) generation systems with no battery storage use daytime minimum load (i.e., 10 a.m. to 4 p.m. for fixed panel systems and 8 a.m. to 6 p.m. for PV<sub>-</sub>systems utilizing tracking systems), while all other generation uses absolute minimum load.

3.4.4.1.2 When this screen is being applied to a DER that serves some station service load, only the net injection into the Area EPS Operator's electric system will be considered as part of the aggregate generation.

3.4.4.1.3 Area EPS Operator will not consider as part of the aggregate generation for purposes of this screen DER capacity known to be already reflected in the minimum load data.

3.4.4.2 Voltage and Power Quality Screen: In aggregate with existing generation on the line section: (1) the voltage regulation on the line section can be maintained in compliance with relevant requirements under all system conditions; (2) the

voltage fluctuation is within acceptable limits as defined by Institute of Electrical and Electronics Engineers (IEEE) Standard 1453, or utility practice similar to IEEE Standard 1453; and (3) the harmonic levels meet IEEE Standard 519 limits.

- 3.4.4.3 Safety and Reliability Screen: The location of the proposed DER and the aggregate generation capacity on the line section do not create impacts to safety or reliability that cannot be adequately addressed without application of the Study Process. The Area EPS Operator shall give due consideration to the following and other factors in determining potential impacts to safety and reliability in applying this screen.
- 3.4.4.3.1 Whether the line section has significant minimum loading levels dominated by a small number of customers (e.g., several large commercial customers).
  - 3.4.4.3.2 Whether the loading along the line section is uniform or even.
  - 3.4.4.3.3 Whether the proposed DER is located in close proximity to the substation (i.e., less than 2.5 electrical circuit miles), and whether the line section from the substation to the Point of Common Coupling is a Main line rated for normal and emergency ampacity.
  - 3.4.4.3.4 Whether the proposed DER incorporates a time delay function to prevent reconnection of the generator to the system until system voltage and frequency are within normal limits for a prescribed time.
  - 3.4.4.3.5 Whether operational flexibility is reduced by the proposed DER, such that transfer of the line section(s) of the DER to a neighboring distribution circuit/substation may trigger overloads or voltage issues.
  - 3.4.4.3.6 Whether the proposed DER employs equipment or systems certified by a recognized standards organization to address technical issues such as, but not limited to, islanding, reverse power flow, or voltage quality.
- 3.4.5 If the proposed interconnection passes the supplemental screens in sections 3.4.4.1, 3.4.4.2, and 3.4.4.3 above, or if the proposed interconnection fails the screens, but the Area EPS Operator determines that the DER may nevertheless be interconnected consistent with safety, reliability, and power quality standards, the interconnection shall proceed as follows:
- 3.4.5.1 If the proposed interconnection passes the supplemental screens in sections 3.4.4.1, 3.4.4.2, and 3.4.4.3 above and does not require construction of facilities by the Area EPS Operator on its own system, the Area EPS Operator shall provide the Interconnection Customer an executable Interconnection Agreement within five (5) Business Days.
  - 3.4.5.2 If the proposed interconnection requires construction of any facilities, the Area EPS Operator shall notify the Interconnection Customer of such requirement when it provides the supplemental review results and either: 1) provide a good faith cost estimate; or 2) require a facilities study pursuant to 4.4.1. Within five

(5) Business Days, the Interconnection Customer shall inform the Area EPS Operator if the Interconnection Customer elects to proceed with the proposed interconnection. If the Interconnection Customer makes such an election, the Area EPS Operator shall either provide: i) an Interconnection Agreement, along with a non-binding good faith cost estimate and construction schedule for such upgrades, within twenty (20) Business Days after the Area EPS Operator receives such an election or ii) a facilities study agreement pursuant to section 4.4.

- 3.4.6 If the proposed interconnection fails the screens, and the Area EPS Operator does not or cannot determine that the DER may nevertheless be interconnected consistent with safety, reliability, and power quality standards unless the Interconnection Customer is willing to consider minor modifications or further study, the Area EPS Operator shall provide the Interconnection Customer the option of commencing the Section 4 Study Process. If the Interconnection Customer wishes to proceed it shall notify the Area EPS Operator within fifteen (15) Business Days to retain its queue position.

#### **Section 4. Study Process**

##### **4.1 Applicability**

The Study Process shall be used by an Interconnection Customer proposing to interconnect its DER with the Area EPS Operator's Distribution System if the DER 1) is not eligible for Section 2 Simplified Process review or Section 3 Fast Track Process review, or 2) did not pass the Fast Track Process or the Simplified Process. The application fee described in section 1.5.1.3 shall be applied to the application completeness review costs and the first deposit required in this section.

##### **4.2 Scoping Meeting**

- 4.2.1 A scoping meeting shall be held within ten (10) Business Days after the Interconnection Application is deemed complete or, if applicable, the Fast Track Process or Simplified Process has been completed and the Interconnection Customer has elected to continue with the Study Process, or as mutually agreed to by the Parties. The Area EPS Operator and the Interconnection Customer will bring to the meeting personnel, including system engineers and other resources, as may be reasonably required to accomplish the purpose of the meeting.
- 4.2.2 The purpose of the scoping meeting is to discuss the Interconnection Application and review existing study results and relevant underlying data and assumptions relevant to the Interconnection Application. The Parties shall further discuss whether the Area EPS Operator should perform a system impact study or studies, or proceed directly to a facilities study or an Interconnection Agreement. If the Area EPS Operator determines there is no potential for Transmission System or Distribution System adverse system impacts, the Interconnection Application shall proceed directly to a facilities study or an executable Interconnection Agreement, as agreed to by the Parties.
- 4.2.3 The scoping meeting may be omitted by mutual agreement.

##### **4.3 System Impact Study**

- 4.3.1 A system impact study shall identify and detail the electric system impacts that would result if the proposed DER(s) were interconnected without project modifications or electric system modifications, and to study potential impacts, including but not limited to those identified in the

scoping meeting. A system impact study shall evaluate the impact of the proposed interconnection on the reliability of the electric system.

- 4.3.2 If the Parties agree at the scoping meeting that a system impact study should be performed, the Area EPS Operator shall provide the Interconnection Customer, as soon as possible, but not later than five (5) Business Days after the scoping meeting, a system impact study agreement as defined in 4.3.3.

If the scoping meeting is omitted by mutual agreement or, if applicable, the Simplified Process or Fast Track Process has been completed and the Interconnection Customer has elected to continue with the Study Process, and a system impact study is required, the Area EPS Operator shall provide the Interconnection Customer a system impact study agreement within ten (10) Business Days.

- 4.3.3 The system impact study agreement (Attachment 6) shall include an outline of the scope of the study and a non-binding good faith estimate of the cost to perform the study. If applicable, the agreement shall list any additional and reasonable technical data on the DER needed to perform the system impact study. The scope of and cost responsibilities for a system impact study are described in the attached system impact study agreement. A deposit of the good faith estimated costs for each system impact study shall be provided by the Interconnection Customer when it returns the study agreements. The additional and reasonable technical data, if applicable, shall be returned with the system impact agreement. Upon Interconnection Customer request, the Area EPS Operator shall grant a time frame extension as described in 5.2.3 if additional technical data is requested.
- 4.3.4 In order to remain in consideration for interconnection, an Interconnection Customer who has requested a System Impact Study must return the executed system impact study agreement and pay the required study deposit within twenty (20) Business Days.
- 4.3.5 A System Impact Study shall be completed within thirty (30) Business Days after the system impact study agreement is signed by the Parties and delivered with deposit to the Area EPS Operator. The results and, if necessary, facilities study agreement shall be delivered to the Interconnection Customer within five (5) Business Days of completion of the System Impact Study. Upon request, the Area EPS Operator shall provide Interconnection Customer supporting documentation and workpapers developed in the preparation of the system impact study, subject to confidentiality arrangements consistent with these procedures and the System Impact Study agreement.
- 4.3.6 In instances where the System Impact Study shows potential for Transmission System adverse system impacts, within five (5) Business Days following the identification of such impacts by the Area EPS Operator, the Area EPS Operator shall coordinate with the appropriate Transmission Provider to have the necessary studies completed to determine if the DER causes any adverse transmission impacts.
- 4.3.7 In order to remain in consideration for interconnection, an Interconnection Customer must return the executed Transmission System impact study agreement within fifteen (15) Business Days.
- 4.3.8 A Transmission System impact study, if required, shall be completed and the results transmitted to the Interconnection Customer in as timely a manner as possible after the transmission system impact study agreement is signed by the Parties. The Area EPS Operator shall be responsible for coordination with the Transmission Provider as needed. Affected Systems shall participate in the study and provide all information necessary to prepare the study.



#### 4.4 Facilities Study

- 4.4.1 If construction of facilities is required, a facilities study may be necessary to specify and estimate the cost of the equipment, engineering, procurement and construction work identified in Initial Review, Supplemental Review, or the Study Process to provide interconnection and interoperability of the DER with the Area EPS Operator's Distribution System as required by Minnesota Technical Requirements. Interconnection Applications reviewed in the Simplified Process and Fast Track Process that require construction of facilities may be eligible, upon determination of the Area EPS Operator, to forego a facilities study as described in section 3.2.2.2.

The Area EPS Operator shall provide the Interconnection Customer a facilities study agreement in tandem with the results of the Interconnection Customer's system impact study or, if required, Transmission System impact study.

If no system impact study is required, but a facilities study is required, then the Area EPS Operator shall provide as soon as possible, but not later than five (5) Business Days after the scoping meeting, a facilities study agreement.

If the scoping meeting is omitted by mutual agreement and no system impact study is required, but a facilities study is required, the Area EPS Operator shall provide the Interconnection Customer a facilities study agreement within ten (10) Business Days after the Interconnection Application is deemed complete and, if applicable, the Simplified Process or Fast Track Process has been completed.

- 4.4.2 The facilities study agreement (Attachment 7) shall be accompanied by an outline of the scope of the study and a non-binding good faith estimate of the cost to perform the facilities study. The scope of and cost responsibilities for the facilities study are described in the attached facilities study agreement. A deposit of the good faith estimated costs for the facilities study shall be provided by the Interconnection Customer at the time it returns the study agreement.
- 4.4.3 In order to remain under consideration for interconnection, the Interconnection Customer must return the executed facilities study agreement and pay the required study deposit within fifteen (15) Business Days.
- 4.4.4 The facilities study shall specify and estimate the cost of the equipment, engineering, procurement and construction work (including overheads) needed to implement the conclusions of the system impact study(s).
- 4.4.5 Design for any required Interconnection Facilities and/or Upgrades shall be performed under the Facilities Study Agreement unless the Interconnection Application is processed under the provisions of section 3.2.2.2. However, in the event that the Interconnection Customer did not provide to the Area EPS Operator all required Conditional Use Permits at the time of entering into the Facilities Study Agreement, any such Design and/or Upgrades by the Area EPS Operator may be delayed until after the Interconnection Customer has provided to the Area EPS Operator all required Conditional Use Permits or provided a final design. The information in the Conditional Use Permits, or changes to the design, may result in significant modifications to the planned design and/or Upgrades. The Interconnection Customer may send to the Area EPS Operator a redacted version of the Conditional Use Permit to ensure confidentiality, but any and all information that the Area EPS Operator would reasonably need to perform an accurate Facilities Study shall not be redacted. If necessary to comply with these requirements, a confidential version of the Conditional Use Permit may be provided to the Area EPS Operator, with the confidential information being clearly marked and subject to the Confidentiality provisions in 5.9. The Area EPS Operator may

contract with consultants to perform activities required under the facilities study agreement. The Interconnection Customer and the Area EPS Operator may agree to allow the Interconnection Customer to separately arrange for the design of some of the Interconnection Facilities. In such cases, facilities design will be reviewed and/or modified prior to acceptance by the Area EPS Operator, under the provisions of the Facilities Study Agreement. If the Parties agree to separately arrange for design and construction, and provided security and confidentiality requirements can be met, the Area EPS Operator shall make sufficient information available to the Interconnection Customer in accordance with confidentiality and critical infrastructure requirements to permit the Interconnection Customer to obtain an independent design and cost estimate for any necessary facilities.

- 4.4.6 In cases where Upgrades are required, the facilities study must be completed within forty-five (45) Business Days of the receipt of the executed facilities study agreement and deposit.
- 4.4.7 In cases where no Upgrades are necessary, and the required facilities are limited to Interconnection Facilities, the facilities study must be completed within thirty (30) Business Days of the receipt of the executed facilities study agreement and deposit.
- 4.4.8 Once the facilities study is completed, a draft facilities study report shall be prepared and transmitted to the Interconnection Customer. Upon request, the Area EPS Operator shall provide Interconnection Customer supporting documentation and workpapers developed in the preparation of the Interconnection Facilities Study, subject to confidentiality arrangements consistent with these procedures and the facilities study agreement.
- 4.4.9 Within ten (10) Business Days of providing a draft facilities study report to Interconnection Customer, the Area EPS Operator and Interconnection Customer shall meet to discuss the results of the facilities study unless the meeting is omitted by mutual agreement.
- 4.4.10 Interconnection Customer may, within twenty (20) Business Days after receipt of the draft report, provide written comments to the Area EPS Operator, which the Area EPS Operator shall address in the final report.
- 4.4.11 The Area EPS Operator shall issue the final facilities study report within fifteen (15) Business Days of receiving Interconnection Customer's comments or promptly upon receiving Interconnection Customer's statement that it will not provide comments. The Area EPS Operator may reasonably extend the time frame upon notice to the Interconnection Customer if the Interconnection Customer's comments require additional analyses or lead to significant modifications by the Area EPS Operator prior to issuance of the final facilities study report.

## **Section 5. Provisions that Apply to All Interconnection Applications**

### **5.1 Interconnection Agreement**

- 5.1.1 The Area EPS Operator shall provide the Interconnection Customer an executable Interconnection Agreement as described in section 1.1.5 within five (5) Business Days after the completion of all required review or study of the Interconnection Application unless sections 3.2.2.2, 3.4.5.1, 3.4.5.2 or 4.2.2 applies.
- 5.1.2 After receiving an Interconnection Agreement from the Area EPS Operator, the Interconnection Customer shall have thirty (30) Business Days to sign and return the interconnection agreement. If the Interconnection Customer does not sign the interconnection agreement, request an extension

pursuant to these procedures, or ask the Area EPS Operator to file an unexecuted Interconnection Agreement with the Commission within thirty (30) Business Days, the Interconnection Application shall be deemed withdrawn. The Area EPS Operator shall provide the Interconnection Customer a fully executed Interconnection Agreement within five (5) Business Days after receiving a signed interconnection agreement from the Interconnection Customer. After the Interconnection Agreement is signed by the Parties, the interconnection of the DER shall proceed under the provisions of the Interconnection Agreement, except to the extent these procedures remain applicable, including, but not limited to, sections 5.5, 5.6, and 5.7.

## 5.2 Time Frames and Extensions

- 5.2.1 Response or Action Timeframes: Unless otherwise stated, all time frames are measured in Business Days. For purposes of measuring these time intervals and consistent with Minn. Stat. §645.15, the time shall be computed so as to exclude the first and include the last day of the prescribed or fixed period or duration of time. Any communication sent or received after 4:30 p.m. (local time in Saint Paul, Minnesota) or on a Saturday, Sunday, or Holiday shall be considered to have been sent on the next Business Day.
- 5.2.2 The Area EPS Operator shall make Reasonable Efforts to meet all time frames provided in these procedures. If the Area EPS Operator cannot meet a deadline provided herein, it must notify the Interconnection Customer in writing within three (3) Business Days after the deadline to explain the reason for the failure to meet the deadline, and provide an estimated time by which it will complete the applicable interconnection procedure in the process.
- 5.2.3 For applicable time frames described in these procedures, the Interconnection Customer may request in writing one extension equivalent to half of the time originally allotted (e.g., ten (10) Business Days for a twenty (20) Business Days original time frame) which the Area EPS Operator may not unreasonably refuse. No further extensions for the applicable time frame shall be granted absent a Force Majeure Event or other similarly extraordinary circumstances.

## 5.3 Disputes

- 5.3.1 The Parties agree to attempt to resolve all disputes arising out of the interconnection process and associated study and Interconnection Agreements according to the provisions of this article and Minnesota Administrative Rules 7829.1500-7829.1900. More information on the Commission's Consumer Affairs Office dispute resolution services is available on the Commission's website: <https://mn.gov/puc/consumers/help/complaint/>
- 5.3.2 Prior to a written Notice of Dispute, the Party shall contact the other Party and raise the issue and the relief sought in an attempt to resolve the issue immediately.
- 5.3.3 In the event of a dispute, the disputing Party shall provide the other Party a written Notice of Dispute containing the relevant known facts pertaining to the dispute, the specific dispute and the relief sought, and express notice by the disputing Party that it is invoking the procedures under this article. The Interconnection Customer may utilize the Commission's Consumer Affairs Office's complaint/inquiry form and Informal Complaint dispute resolution process to assist with the written Notice of Dispute. The notice shall be sent to the non-disputing Party's email address and physical address set forth in the Interconnection Agreement or Interconnection Application, if there is no Interconnection Agreement. If the Interconnection Customer chooses not to utilize the Commission's Consumer Affairs Office dispute resolution process, the Interconnection Customer

shall provide an informational electronic copy of the Notice of Dispute to the Consumer Affairs Office at the Commission at [consumer.puc@state.mn.us](mailto:consumer.puc@state.mn.us).

- 5.3.4 The non-disputing Party shall acknowledge the notice within three (3) Business Days of its receipt and identify a representative with the authority to make decisions for the non-disputing Party with respect to the dispute.
- 5.3.5 The non-disputing Party shall provide the disputing Party with relevant regulatory and/or technical details and analysis regarding the Area EPS Operator interconnection requirements under dispute within ten (10) Business Days of the date of the Notice of Dispute. Within twenty (20) Business Days of the date of the Notice of Dispute, the Parties' authorized representatives will be required to meet and confer to try to resolve the dispute. Parties shall operate in good faith and use best efforts to resolve the dispute.
- 5.3.6 If a resolution is not reached in the thirty (30) Business Days from the date of the notice described in section 5.3.3, the Parties may 1) if mutually agreed, continue negotiations for up to an additional twenty (20) Business Days; or 2) either Party may request the Commission's Consumer Affairs Office provide mediation in an attempt to resolve the dispute within twenty (20) Business Days with the opportunity to extend this timeline upon mutual agreement. Alternatively, both Parties by mutual agreement may request mediation from an outside third-party mediator with costs to be shared equally between the Parties.
- 5.3.7 If the results of the mediation are not accepted by one or more Parties and there is still disagreement, the dispute shall proceed to the Commission's Formal Complaint process as described in Minn. Rules 7829.1700-1900 unless mutually agreed to continue with informal dispute resolution.
- 5.3.8 At any time, either Party may file a complaint before the Commission pursuant to Minn. Stat. §216B.164, if applicable, and Commission rules outlined in Minn. Rules Ch. 7829.

#### 5.4 Interconnection Metering

Any metering requirements necessitated by the use of the DER shall be installed at the Interconnection Customer's expense. The Interconnection Customer is responsible for replacement meter costs not covered in the Interconnection Customer's general customer charge. The Area EPS Operator may charge Interconnection Customers an ongoing metering-related charge for an estimate of ongoing metering-related costs specifically demonstrated and approved in tariff regardless of the choice of meter payment. The Area EPS Operator shall offer the Interconnection Customer the following payment options:

- 5.4.1 Pay upfront the cost of metering requirements for the DER. Any maintenance or replacement costs may be billed separately to the Interconnection Customer after these costs are incurred.
- 5.4.2 Pay a tariffed monthly charge for the actual, DER-related meter and metering-related costs. If no tariffed monthly charge is an exact match, then the closest applicable tariffed monthly charge shall apply; unless metering requirements are so different that individual case basis pricing should apply.

#### 5.5 Non-Warranty

The Area EPS Operator does not give any warranty, expressed or implied, as to the adequacy, safety, or other characteristics of any structures, equipment, wires, appliances or devices owned, operated, installed

or maintained by the Interconnection Customer, including without limitation the DER and any structures, equipment, wires, appliances or devices not owned, operated or maintained by the Area EPS Operator.

5.6 Design, Procurement, Installation and Construction of Interconnection Facilities and Upgrades

- 5.6.1 The Interconnection Customer shall pay for the actual cost of the Interconnection Facilities and Distribution Upgrades as described and itemized pursuant to the Interconnection Agreement and its attachments. If Network Upgrades are required, the actual cost of the Network Upgrades, including overheads, shall be borne by the Interconnection Customer pursuant to the Transmission Provider and associated agreement(s). As indicated in the Interconnection Agreement, the Area EPS Operator shall provide a good faith cost estimate, including overheads, for the purchase and construction of the Interconnection Facilities, Distribution Upgrades, and Network Upgrades, and provide a detailed itemization of such costs.
- 5.6.2 The Interconnection Customer and the Area EPS Operator shall agree on milestones for which each Party is responsible and list them in an attachment to the Interconnection Agreement. To the greatest extent possible, the Parties will identify all design, procurement, installation and construction requirements associated with a project, and clear associated timelines, at the beginning of the design, procurement, installation and construction phase, or as early within the process as possible.
- 5.6.3 A Party's obligations under this provision may be extended by agreement. If a Party anticipates that it will be unable to meet a milestone for any reason other than a Force Majeure Event, it shall immediately notify the other Party of the reason(s) for not meeting the milestone and 1) propose the earliest reasonable alternate date by which it can attain this and future milestones, and 2) request appropriate amendments to the Interconnection Agreement and its attachments. The Party affected by the failure to meet a milestone shall not unreasonably withhold agreement to such an amendment unless 1) it will suffer significant uncompensated economic or operational harm from the delay, 2) attainment of the same milestone has previously been delayed, or 3) it has reason to believe that the delay in meeting the milestone is intentional or unwarranted notwithstanding the circumstances explained by the Party proposing the amendment. If the Party affected by the failure to meet a milestone disputes the proposed extension, the affected Party may pursue dispute resolution pursuant to 5.3.
- 5.6.4 At the option of the Area EPS Operator, either the "Traditional Security" or the "Modified Security" method shall be used.
- 5.6.4.1 Under the Traditional Security method, the Interconnection Customer shall provide reasonable adequate assurances of credit, including a letter of credit or personal guaranty of payment and performance from a creditworthy entity acceptable under the Area EPS Operator credit policy and procedures for the unpaid balance of the estimated amount shown in Interconnection Agreement for the totality of all anticipated work or expense incurred by the Area EPS Operator associated with the Interconnection Application. The payment for these estimated costs shall be as follows:
- 5.6.4.1.1 1/3 of estimated costs shall be due no later than when the Interconnection Customer signs the Interconnection Agreement.
- 5.6.4.1.2 An additional 1/3 of estimated costs shall be due prior to initial energization of the Generation System with the Area EPS Operator.

- 5.6.4.1.3 Remainder of actual costs, incurred by Area EPS Operator, shall be due within 30 days from the date the bill is mailed by the Area EPS Operator after project completion.
- 5.6.4.2 Under the Modified Security method, at least twenty (20) Business Days prior to the commencement of the design, procurement, installation, or construction of a discrete portion of the Area EPS Operator's Interconnection Facilities and Upgrades, the Interconnection Customer shall provide the Area EPS Operator, at the Interconnection Customer's option, a guarantee, letter of credit or other form of security that is reasonably acceptable to the Area EPS Operator and is consistent with the Minnesota Uniform Commercial Code. Such security for payment shall be in an amount sufficient to cover the costs for constructing, designing, procuring, and installing the applicable portion of the Area EPS Operator's Interconnection Facilities and Upgrades and shall be reduced on a dollar-for-dollar basis for payments made to the Area EPS Operator under the Interconnection Agreement during its term.
- 5.6.4.3 The guarantee must be made by an entity that meets the creditworthiness requirements of the Area EPS Operator, and contain terms and conditions that guarantee payment of any amount that may be due from the Interconnection Customer, up to an agreed-to maximum amount.
- 5.6.4.4 The letter of credit must be issued by a financial institution or insurer reasonably acceptable to the Area EPS Operator and must specify a reasonable expiration date not sooner than sixty (60) Business Days (three calendar months) after the due date of the final accounting report and bill described in 5.6.6.
- 5.6.5 The Area EPS Operator shall bill the Interconnection Customer for the design, engineering, construction, and procurement costs of Interconnection Facilities and Upgrades described in the Interconnection Agreement on a monthly basis, or as otherwise agreed by the Parties in the interconnection agreement. The Interconnection Customer shall pay each bill within twenty-one (21) Business Days of receipt, or as otherwise agreed to by the Parties in the interconnection agreement.
- 5.6.6 Within eighty (80) Business Days (approximately four (4) calendar months) of completing the construction and installation of the Area EPS Operator's Interconnection Facilities and/or Upgrades described in the interconnection agreement and its attachments, the Area EPS Operator shall provide the Interconnection Customer with a final accounting report of any difference between 1) the Interconnection Customer's cost responsibility for the actual cost of such facilities or Upgrades, and 2) the Interconnection Customer's previous aggregate payments to the Area EPS Operator for such facilities or Upgrades. If the Interconnection Customer's cost responsibility exceeds its previous aggregate payments, the Area EPS Operator shall invoice the Interconnection Customer for the amount due and the Interconnection Customer shall make payment to the Area EPS Operator within twenty (20) Business Days. If the Interconnection Customer's previous aggregate payments exceed its cost responsibility under the Interconnection Agreement, the Area EPS Operator shall refund to the Interconnection Customer an amount equal to the difference within twenty (20) Business Days of the final accounting report.

## 5.7 Inspection, Testing, Commissioning and Authorization

- 5.7.1 The Interconnection Customer shall arrange for the inspection and testing of the DER and the Customer's Interconnection Facilities prior to interconnection pursuant to Minnesota Interconnection Technical Requirements. Commissioning tests of the Interconnection Customer's installed equipment shall be performed pursuant to applicable codes and standards pursuant to Minnesota Technical Requirements.
- 5.7.2 The Interconnection Customer shall notify the Area EPS Operator of testing and inspection no fewer than five (5) Business Days in advance, or as may be agreed to by the Parties. Testing and inspection shall occur on a Business Day. The Area EPS Operator may, at its own expense if not required in Minnesota Interconnection Technical Requirements, send qualified personnel to the DER site to inspect the interconnection and witness the testing. The Interconnection Customer shall provide the Area EPS Operator a written results report.
- 5.7.3 The Area EPS Operator shall provide the Interconnection Customer written acknowledgment that it has received the Interconnection Customer's written test report. Such written acknowledgment shall not be deemed to be or construed as any representation, assurance, guarantee, or warranty by the Area EPS Operator of the safety, durability, suitability, or reliability of the DER or any associated control, protective, and safety devices owned or controlled by the Interconnection Customer or the quality of power produced by the DER.

## 5.8 Authorization Required Prior to Parallel Operation

- 5.8.1 Area EPS Operator shall use Reasonable Efforts to list applicable parallel operation requirements by attaching the MN~~Minnesota Interconnection~~ Technical Requirements to the Interconnection Agreement. Additionally, the Area EPS Operator shall notify the Interconnection Customer of any changes to these requirements as soon as they are known. The Area EPS Operator shall make Reasonable Efforts to cooperate with the Interconnection Customer in meeting requirements necessary for the Interconnection Customer to commence parallel operations by the in-service date.
- 5.8.2 The Interconnection Customer shall not operate its DER in parallel with the Area EPS Operator's Distribution System without prior written permission to operate authorization from the Area EPS Operator. The Area EPS Operator shall provide such authorization within three (3) Business Days from when the Area EPS Operator receives notification that the Interconnection Customer has complied with all applicable parallel operation requirements and all payments for issued bills under the Interconnection Agreement, System Impact Study Agreement, Facilities Study Agreement or Section 5.6.5 above that are past due have been paid in full. Such authorization shall not be unreasonably withheld, conditioned, or delayed.

## 5.9 Confidentiality

- 5.9.1 Confidential Information shall mean any confidential and/or proprietary information provided by one Party to the other Party that is clearly marked or otherwise designated "Confidential." For purposes of these procedures, design, operating specifications, and metering data provided by the Interconnection Customer may be deemed Confidential Information regardless of whether it is clearly marked or otherwise designated as such. If requested by either Party, the other Party shall provide in writing the basis for asserting that the information warrants confidential treatment. Parties providing a Governmental Authority trade secret, privileged or otherwise not public or nonpublic data under the Minnesota Government Data Practices Act, Minnesota Statutes Chapter 13, shall identify such data consistent with the Commission's September 1, 1999 Revised

Procedures for Handling Trade Secret and Privileged Data, available online at:  
<https://mn.gov/puc/puc-documents/#4>

5.9.2 Confidential Information does not include information previously in the public domain with proper authorization, required to be publicly submitted or divulged by Governmental Authorities (after notice to the other Party and after exhausting any opportunity to oppose such publication or release), or necessary to be publicly divulged in an action to enforce these procedures. Each Party receiving Confidential Information shall hold such information in confidence and shall not disclose it to any third party nor to the public without the prior written authorization from the Party providing that information, except to fulfill obligations under these procedures, or to fulfill legal or regulatory requirements that could not otherwise be fulfilled by not making the information public.

5.9.2.1 Each Party shall hold in confidence and shall not disclose Confidential Information, to any person (except employees, officers, representatives and agents, who agree to be bound by this section). Confidential Information shall be clearly marked as such on each page or otherwise affirmatively identified. If a court, government agency or entity with the right, power, and authority to do so, requests or requires either Party, by subpoena, oral disposition, interrogatories, requests for production of documents, administrative order, or otherwise, to disclose Confidential Information, that Party shall provide the other Party with prompt notice of such request(s) or requirements(s) so that the other Party may seek an appropriate protective order or waive compliance with the terms of this Agreement. In the absence of a protective order or waiver the Party shall disclose such confidential information which, in the opinion of its counsel, the party is legally compelled to disclose. Each Party will use reasonable efforts to obtain reliable assurance that confidential treatment will be accorded any confidential information so furnished.

5.9.2.2 Critical infrastructure information or information that is deemed or otherwise designated by a Party as Critical Energy/Electric Infrastructure Information (CEII) pursuant to FERC regulation, [18 C.F.R. §388.133](#), as may be amended from time to time, may be subject to further protections for disclosure as required by FERC or FERC regulations or orders and the disclosing Party's CEII policies.

5.9.2.3 Each Party shall employ at least the same standard of care to protect Confidential Information obtained from the other Party as it employs to protect its own Confidential Information.

5.9.2.4 Each Party is entitled to equitable relief, by injunction or otherwise, to enforce its rights under this provision to prevent the release of Confidential Information without bond or proof of damages, and may seek other remedies available at law or in equity for breach of this provision.

## 5.10 Insurance

5.10.1 At a minimum, the Interconnection Customer shall maintain, during the term of the Interconnection Agreement, general liability insurance, from a qualified insurance agency with a B+ or better rating by "Best" and with a combined single limit of not less than the limits described in the chart below.



<b>Distributed Energy Resource System Size</b>	<b>Liability Insurance Requirement</b>
≤ 40 kWac	\$300,000
> 40 kWac and ≤ 250 kWac	\$1,000,000
> 250 kWac and ≤ 5 MWac	\$2,000,000
> 5 MWac and ≤ 10 MWac	\$3,000,000

Such general liability insurance shall include coverage against claims for damages resulting from (i) bodily injury, including wrongful death; and (ii) property damage arising out of the Interconnection Customer’s ownership and/or operation of the DER under this agreement.

- 5.10.2 The general liability insurance required shall, by endorsement to the policy or policies, (a) include the Area EPS Operator as an additional insured; (b) contain a severability of interest clause or cross-liability clause; (c) provide that the Area EPS Operator shall not by reason of its inclusion as an additional insured incur liability to the insurance carrier for the payment of premium for such insurance; and (d) provide for twenty (20) business days’ written notice to the Area EPS Operator prior to cancellation, termination, alteration or material change of such insurance.
- 5.10.3 If the DER is connected to an account receiving residential service from the Area EPS Operator and its system size is less than 40kW, then the endorsements required in Section 5.10.2 shall not apply.
- 5.10.4 The Interconnection Customer shall furnish the required insurance certificates and endorsements to the Area EPS Operator prior to the initial operation of the DER. Thereafter, the Area EPS Operator shall have the right to periodically inspect or obtain a copy of the original policy or policies of insurance.
- 5.10.5 Evidence of the insurance required in Section 5.10.1 shall state that coverage provided is primary and is not excess to or contributing with any insurance or self-insurance maintained by the Area EPS Operator.
- 5.10.6 If the Interconnection Customer is self-insured with an established record of self-insurance, the Interconnection Customer may comply with the following in lieu of Sections 5.10.1 - 5.10.5.
  - 5.10.6.1 Interconnection Customer shall provide the Area EPS Operator, at least twenty (20) days prior to the date of initial operation, evidence of an acceptable plan to self-insure to a level of coverage equivalent to that required under Section 5.10.1.
  - 5.10.6.2 If the Interconnection Customer ceases to self-insure to the level required hereunder, or if the Interconnection Customer is unable to provide continuing evidence of the ability to self-insure, the Interconnection Customer agrees to immediately obtain the coverage required under Section 5.10.1.
  - 5.10.6.3 Failure of the Interconnection Customer or the Area EPS Operator to enforce the minimum levels of insurance does not relieve the Interconnection Customer from maintaining such levels of insurance or relieve the Interconnection Customer of any liability.

5.10.7 An Interconnection Customer's insurance requirements shall be limited to no more than an aggregate cap of \$35 million if the Interconnection Customer has multiple DER systems in the Area EPS Operator's service territory.

#### 5.11 Comparability

The Area EPS Operator shall receive, process and analyze all Interconnection Applications in a timely manner as set forth in this document. The Area EPS Operator shall use the same Reasonable Efforts in processing and analyzing Interconnection Applications from all Interconnection Customers, whether the DER is owned or operated by the Area EPS Operator, its subsidiaries or affiliates, or others.

#### 5.12 Record Retention

The Area EPS Operator shall maintain for three years records, subject to audit, of all Interconnection Applications received under these procedures, the times required to complete Interconnection Application approvals and disapprovals, and justification for the actions taken on the Interconnection Applications.

#### 5.13 Coordination with Affected Systems

The Area EPS Operator shall coordinate the conduct of any studies required to determine the impact of the Interconnection Application on Affected Systems with Affected System operators and, if possible, include those results (if available) in its applicable interconnection study within the time frame specified in these procedures. The Area EPS Operator will make Reasonable Effort to include the Affected System operator(s) in all relevant meetings held with the Interconnection Customer as required by these procedures. The Interconnection Customer will cooperate with the Area EPS Operator and the Affected System operator(s) in all matters related to the conduct of studies and the determination of modifications to Affected Systems. Affected System operators shall cooperate with the Area EPS Operator and Interconnection Customer(s) with whom interconnection has been requested in all matters related to the conduct of studies and the determination of modifications to Affected Systems.

#### 5.14 Capacity of the Distributed Energy Resource

- 5.14.1 If the Interconnection Application is for an increase in capacity for an existing DER, the Interconnection Application shall be evaluated on the basis of the new total alternating current ("AC") capacity of the Distributed Energy Resource. The maximum capacity of a Distributed Energy Resource shall be the Aggregate Nameplate Rating or may be limited as described in 5.14.3.
- 5.14.2 An Interconnection Application for a DER that includes a single or multiple energy production devices at a site for which the Interconnection Customer seeks a single Point of Common Coupling shall be evaluated on the basis of the Aggregate Nameplate Rating of the multiple DERs unless 5.14.3 applies.
- 5.14.3 If the maximum capacity of the DER(s) is limited (e.g., through use of a control system, power relay(s), or other similar device settings or adjustments), then the Interconnection Customer must obtain the Area EPS Operator's agreement that the manner in which the Interconnection Customer proposes to implement such a limit will effectively limit active power output so as to not adversely affect the safety and reliability of the Area EPS Operator's system. Such agreement shall not to be unreasonably withheld. If the Area EPS Operator does not so agree, then the Interconnection Application must be withdrawn or revised. Nothing in this section shall prevent an Area EPS Operator from considering an output higher than the limited output (e.g., Aggregate Nameplate

Rating), if the limitations do not provide adequate assurance, when evaluating system impacts. See Minnesota Technical Requirements for more detail.

## **Glossary of Terms**

**Affected System** – Another Area EPS Operator’s System, Transmission Owner’s Transmission System, or Transmission System connected generation which may be affected by the proposed interconnection.

**Applicant Agent** – A person designated in writing by the Interconnection Customer to represent or provide information to the Area EPS on the Interconnection Customer’s behalf throughout the interconnection process.

**Area EPS** – The electric power distribution system connected at the Point of Common Coupling.

**Area EPS Operator** – An entity that owns, controls, or operates the electric power distribution systems that are used for the provision of electric service in Minnesota. As used in this tariff, this means Northern States Power Company, a Minnesota corporation, doing business as Xcel Energy.

**Business Day** – Monday through Friday, excluding Holidays as defined by [Minn. Stat. §645.44, Subd. 5](#). See MN DIP Section 5.2.1 for more on computation of time.

**Certified Equipment** - UL 1741 listing is a common form of DER inverter certification. See Attachment 4: Certification Codes and Standards and Attachment 5: Certification of Distributed Energy Resource Equipment.

**Confidential Information** – See MN DIP 5.9.

**Distributed Energy Resource (DER)** – A source of electric power that is not directly connected to a bulk power system. DER includes both generators and energy storage technologies capable of exporting active power to an EPS. An interconnection system or a supplemental DER device that is necessary for compliance with this standard is part of a DER. For the purpose of the MN DIP and MN DIA, the DER includes the Customer’s Interconnection Facilities but shall not include the Area EPS Operator’s Interconnection Facilities.

**Distribution System** – The Area EPS facilities which are not part of the Local EPS, Transmission System or any generation system.

**Distribution Upgrades** – The additions, modifications, and upgrades to the Distribution System at or beyond the Point of Common Coupling to facilitate interconnection of the DER and render the distribution service necessary to effect the Interconnection Customer’s connection to the Distribution System. Distribution Upgrades do not include Interconnection Facilities.

**Electric Power System (EPS)** – The facilities that deliver electric power to a load.

**Fast Track Process** – The procedure as described in Section 3 for evaluating an Interconnection Application for a DER that meets the eligibility requirements of section 3.1.

**Force Majeure Event** – An act of God, labor disturbance, act of the public enemy, war, insurrection, riot, fire, storm or flood, explosion, breakage or accident to machinery or equipment, an order, regulation or restriction imposed by governmental, military or lawfully established civilian authorities, or another cause beyond a Party’s control. A Force Majeure Event does not include an act of negligence or intentional wrongdoing.

**Good Utility Practice** – Any of the practices, methods and acts engaged in or approved by a significant portion of the electric industry during the relevant time period, or any of the practices, methods and act which, in the exercise of reasonable judgment in light of the facts known at the time the decision was made, could have been expected to accomplish the desired result at a reasonable cost consistent with good business practices, reliability, safety and expedition. Good Utility Practice is not intended to be limited to the optimum practice, method, or act to the exclusion of all others, but rather to be acceptable practices, methods, or acts generally accepted in the region.

**Governmental Authority** – Any federal, state, local or other governmental regulatory or administrative agency, court, commission, department, board, or other governmental subdivision, legislature, rulemaking board, tribunal, or other governmental authority having jurisdiction over the Parties, their respective facilities, or the respective services they provide, and exercising or entitled to exercise any administrative, executive, police, or taxing authority or power; provided, however, that such term does not include the Interconnection Customer, the Area EPS Operator, or any Affiliate thereof. The Minnesota Public Utilities Commission is the authority governing interconnection requirements unless otherwise provided for in the Minnesota Technical Requirements.

**Interconnection Agreement** – The terms and conditions between the Area EPS Operator and Interconnection Customer (Parties). See MN DIP Section 1.1.5 for when the Uniform Statewide Contract or MN DIA applies.

**Interconnection Application** – The Interconnection Customer’s request to interconnect a new or modified, as described in MN DIP Section 1.6, DER. See

Attachment 2: Simplified Application Form and Attachment 3 Interconnection Application Form.

**Interconnection Customer** – The person or entity, including the Area EPS Operator, whom will be the owner of the DER that proposes to interconnect a DER(s) with the Area EPS Operator’s Distribution System. The Interconnection Customer is responsible for ensuring the DER(s) is designed, operated and maintained in compliance with the Minnesota Technical Requirements.

**Interconnection Facilities** – The Area EPS Operator’s Interconnection Facilities and the Interconnection Customer’s Interconnection Facilities. Collectively, Interconnection Facilities include all facilities and equipment between the DER and the Point of Common Coupling, including any modification, additions or upgrades that are necessary to physically and electrically interconnect the DER to the Area EPS Operator’s System. Some examples of Customer Interconnection Facilities include: supplemental DER devices, inverters, and associated wiring and cables up to the Point of DER Connection. Some examples of Area EPS Operator Interconnection Facilities include sole use facilities; such as, line extensions, controls, relays, switches, breakers, transformers and shall not include Distribution Upgrades or Network Upgrades.

**Material Modification** – A modification to machine data, equipment configuration or to the interconnection site of the DER at any time after receiving notification by the Area EPS Operator of a complete Interconnection Application that has a material impact on the cost, timing, or design of any Interconnection Facilities or Upgrades, or a material impact on the cost, timing or design of any Interconnection Application with a later Queue Position or the safety or reliability of the Area EPS.<sup>13</sup>

**MN DIA** - The Minnesota Distributed Energy Resource Interconnection Agreement. See MN DIP Section 1.1.5 for when the Uniform Statewide Contract or MN DIA applies.

**MN DIP** – The Minnesota Distributed Energy Resource Interconnection Process. Statewide interconnection standards in this document.

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<sup>13</sup> A Material Modification shall include, but may not be limited to, a modification from the approved Interconnection Application that: (1) changes the physical location of the point of common coupling; such that it is likely to have an impact on technical review; (2) increases the nameplate rating or output characteristics of the Distributed Energy Resource; (3) changes or replaces generating equipment, such as generator(s), inverter(s), transformers, relaying, controls, etc., and substitutes equipment that is not like-kind substitution in certification, size, ratings, impedances, efficiencies or capabilities of the equipment; (4) changes transformer connection(s) or grounding; and/or (5) changes to a certified inverter with different specifications or different inverter control settings or configuration. A Material Modification shall not include a modification from the approved Interconnection Application that: (1) changes the ownership of a Distributed Energy Resource; (2) changes the address of the Distributed Energy Resource, so long as the physical point of common coupling remains the same; (3) changes or replaces generating equipment such as generator(s), inverter(s), solar panel(s), transformers, relaying, controls, etc. and substitutes equipment that is a like-kind substitution in certification, size, ratings, impedances, efficiencies or capabilities of the equipment; and/or (4) increases the DC/AC ratio but does not increase the maximum AC output capability of the Distributed Energy Resource in a way that is likely to have an impact on technical review.

**MN Technical Requirements or Minnesota Technical Requirements** – The term including all of the DER technical interconnection requirement documents for the state of Minnesota; including: 1.) Attachment 2 Distributed Generation Interconnection Requirements established in the Commission’s September 28, 2004 Order in E-999/CI-01-1023) until superseded and upon Commission approval of 2.) updated Minnesota DER Technical Interconnection and Interoperability Requirements in E-999/CI-16-521 (anticipated in late 2019.)

**Nameplate Rating** - nominal voltage (V), current (A), maximum active power (kWac), apparent power (kVA), and reactive power (kvar) at which a DER is capable of sustained operation. For a Local EPS with multiple DER units, the aggregate nameplate rating is equal to the sum of all DERs nameplate rating in the Local EPS, not including aggregate capacity limiting mechanisms such as coincidence factors, plant controller limits, etc. that may be applicable for specific cases (Aggregate Nameplate Rating). The nameplate ratings referenced in the MN DIP are alternating current nameplate DER ratings. See Section 5.14 on Capacity of the Distributed Energy Resource and Minnesota Technical Requirements.

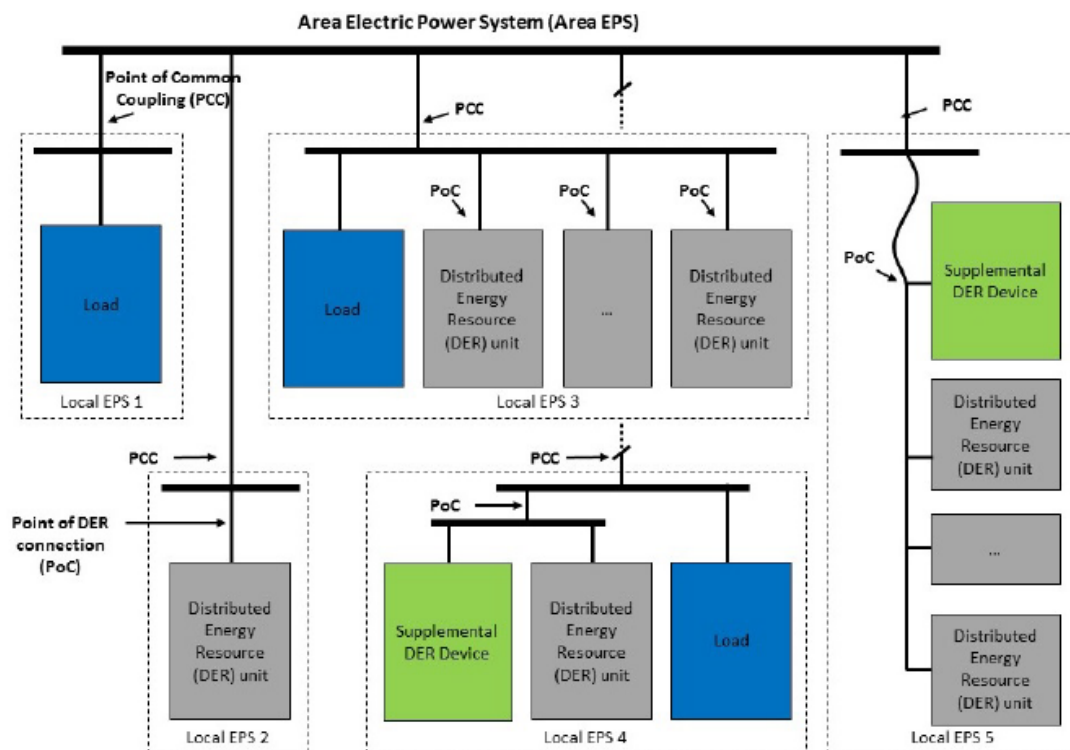
**Network Upgrades** – Additions, modifications, and upgrades to the Transmission System required at or beyond the point at which the DER interconnects with the Area EPS Operator’s System to accommodate the interconnection with the DER to the Area EPS Operator’s System. Network Upgrades do not include Distribution Upgrades.

**Notice of Dispute** – The disputing Party shall provide the other Party this written notice containing the relevant known facts pertaining to the dispute, the specific dispute and the relief sought, and express notice by the disputing Party that it is invoking the procedures under MN DIP 5.3.

**Operating Requirements** – Any operating and technical requirements that may be applicable due to the Transmission Provider’s technical requirements or Minnesota Technical Requirements, including those set forth in the MN DIA.

**Party or Parties** – The Area EPS Operator and the Interconnection Customer.

**Point of Common Coupling (PCC)** – The point where the Interconnection Facilities connect with the Area EPS Operator’s Distribution System. See figure 1. Equivalent, in most cases, to “service point” as specified by the Area EPS Operator and described in the National Electrical Code and the National Electrical Safety Code.



**Figure 1: Point of Common Coupling and Point of DER Connection**

(Source: IEEE 1547)

**Point of DER Connection (PoC)** – When identified as the Reference Point of Applicability, the point where an individual DER is electrically connected in a Local EPS and meets the requirements of this standard exclusive of any load present in the respective part of the Local EPS (e.g., terminals of the inverter when no supplemental DER device is required.) For DER unit(s) that are not self-sufficient to meet the requirements without (a) supplemental DER device(s), the Point of DER Connection is the point where the requirements of this standard are met by DER in conjunction with (a) supplemental DER device(s) exclusive of any load present in the respective part of the Local EPS.

**Queue Position** – The order of a valid Interconnection Application, relative to all other pending valid Interconnection Applications, that is established based upon the date- and time- of receipt of the complete Interconnection Application as described in sections 1.5.2 and 1.8. -

**Reasonable Efforts** – With respect to an action required to be attempted or taken by a Party under these procedures, efforts that are timely and consistent with Good Utility Practice and are otherwise substantially equivalent to those a Party would use to protect its own interests.

**Reference Point of Applicability** – The location, either the Point of Common Coupling or the Point of DER Connection, where the interconnection and interoperability performance requirements specified in IEEE 1547 apply. With mutual agreement, the Area EPS Operator and Customer may determine a point between the Point of Common Coupling and Point of DER



Connection. See Minnesota DER Technical Interconnection and Interoperability Requirements for more information.

**Simplified Process** – The procedure for evaluating an Interconnection Application for a certified inverter-based DER no larger than 20 kW that uses the screens described in section 3.2. The Simplified Process includes simplified procedures.

Attachment 2: Simplified Application Form includes a brief set of terms and conditions, and the option for Interconnection Agreement described in 1.1.5. See Section 2 Simplified Process.

**Study Process** – The procedure for evaluating an Interconnection Application that includes the Section 4 scoping meeting, system impact study, and facilities study.

**Tariff** – The Area EPS Operator’s Tariff filed in compliance with the Minnesota Distributed Energy Resource Interconnection Procedures (MN DIP) and approved by the Minnesota Public Utilities Commission (MPUC or Commission).

**Transmission Owner** – The entity that owns, leases or otherwise possesses an interest in the portion of the Transmission System relevant to the Interconnection.

**Transmission Provider** – The entity (or its designated agent) that owns, leases, controls, or operates transmission facilities used for the transmission of electricity. The term Transmission Provider includes the Transmission Owner when the Transmission Owner is separate from the Transmission Provider. The Transmission Provider may include the Independent System Operator or Regional Transmission Operator.

**Transmission System** – The facilities owned, leased, controlled or operated by the Transmission Provider or the Transmission Owner that are used to provide transmission service. See the Commission’s July 26, 2000 Order Adopting Boundary Guidelines for Distinguishing Transmission from Generation and Distribution Assets in Docket No. E-999/CI-99-1261.

**Uniform Statewide Contract** – State of Minnesota’s standard, uniform contract that must be applied to all qualifying new and existing interconnections between a utility and DER having capacity less than 40 kilowatts if interconnecting with a cooperative or municipal utility, and 1,000 kilowatts if interconnecting with a public utility. ([Minn. Rules 7835.9910](#))

**Upgrades** – The required additions and modifications to the Area EPS Operator’s Transmission or Distribution System at or beyond the Point of Interconnection. Upgrades may be Network Upgrades or Distribution Upgrades. Upgrades do not include Interconnection Facilities.

**Attachment 1: Pre-Application Report Request Form**

Requests for an Interconnection Pre-Application Report shall include the information identified in Sections 1.4.1.1 through 1.4.1.8 of the Minnesota Distributed Energy Resource Interconnection Process (MN DIP) (and as provided in the fields below) to clearly and sufficiently identify the location of the proposed Point of Common Coupling and relevant project details.

Additionally, a non-refundable processing fee of \_\_\_\_\_ (~~not to exceed \$300~~) is required as specified in Section 1.4.1 of the MN DIP.

Upon receipt of a complete Request Form (including site map) and processing fee, the Area EPS Operator shall provide a report containing as much of the data described in Section 1.4.2 as is pre-existing and available within 15 business days. A Pre-Application Report request does not obligate the Area EPS Operator to conduct a study or other analysis of the proposed project if data is not available.

1. Requestor Contact Information:

Name: \_\_\_\_\_  
Company Name (if applicable): \_\_\_\_\_  
Street Address: \_\_\_\_\_  
City/State/Zip: \_\_\_\_\_  
Phone Number: \_\_\_\_\_  
Email Address: \_\_\_\_\_

2. Project Information:

a) Project Name: \_\_\_\_\_

b) Planned Equipment:

DER Nameplate Rating: \_\_\_\_\_ kW  
DER Type: Inverter based Other \_\_\_\_\_  
DER Number of Phases: Single Three  
Service Voltage (120/240 V, 277/480 V, etc.) : \_\_\_\_\_ V  
Stand-alone Generator (no onsite load)? Yes No  
Existing DER? Yes No  
Location of Existing DER (include county):  
\_\_\_\_\_

c) Proposed Point of Common Coupling:

Note: The proposed Point of Common Coupling shall be defined by all or some combination of the below information, enough to clearly identify the location of the Point of Common Coupling.

Street Address: \_\_\_\_\_  
City/State/Zip Code: \_\_\_\_\_  
County: \_\_\_\_\_  
Cross streets: \_\_\_\_\_  
Latitude (in degrees/minutes/seconds or 6 decimal places):

\_\_\_\_\_  
Longitude: \_\_\_\_\_  
Meter number: \_\_\_\_\_  
Utility equipment number (e.g. pole number): \_\_\_\_\_  
Other identifying information: \_\_\_\_\_  
\_\_\_\_\_

d) An attached Site Map is required that shows the following:

- True north
- Proposed project location, including general area of project
- Proposed service point location
- Major roads, streets and/or highways

3. Requestor Signature:

I understand that the confidentiality provisions of MN DIP Section 5.9 apply to the contents of the Pre-Application Report. The MN DIP Section 5.9, states in part as follows:

*“Each Party shall hold in confidence and shall not disclose Confidential Information, to any person (except employees, officers, representatives and agents, who agree to be bound by this section). Confidential Information shall be clearly marked as such on each page or otherwise affirmatively identified. ... Each Party shall employ at least the same standard of care to protect Confidential Information obtained from the other Party as it employs to protect its own Confidential Information. ... Each Party is entitled to equitable relief, by injunction or otherwise, to enforce its rights under this provision to prevent the release of Confidential Information without bond or proof of damages, and may seek other remedies available at law or in equity for breach of this provision.”*

I understand that 1) the existence of “Available Capacity” in no way implies that an interconnection up to this level may be completed without impacts since there are many variables studied as part of the interconnection review process, 2) the distribution system is dynamic and subject to change and 3) data provided in the Pre-Application Report may become outdated and not useful at the time of submission of the complete Interconnection Request.

Name (type or print): \_\_\_\_\_  
Signature: \_\_\_\_\_  
Date: \_\_\_\_\_

Pre-Application Report requests shall be submitted with attachments to ~~;~~  
~~{Fill in method of submittal as specified by Area EPS}~~ the Company through its online portal available at [www.xcelenergy.com](http://www.xcelenergy.com) or other applicable URL. Only if the online portal is unavailable submit to Distributed Energy Resources at [MNDER@xcelenergy.com](mailto:MNDER@xcelenergy.com)

Fees shall be submitted ~~by~~ online through the online application portal or Xcel Energy, Attn: Distributed Energy Resources, at P.O.Box 59 Minneapolis MN 55440-0059.;  
~~{Fill in method of payment as specified by Area EPS}~~

**Attachment 2: Simplified Application Form**

**MINNESOTA DISTRIBUTED ENERGY RESOURCES**

**SIMPLIFIED PROCESS APPLICATION (Form Template)**

The Simplified Process is available only for certified, inverter-based Distributed Energy Resources (DER) no larger than 20 kW that meet the requirements of Attachment 4: Certification Codes and Standards and Attachment 5: Certification of Distributed Energy Resource Equipment.

This Application is deemed complete when it provides all applicable and correct information required below. The following additional information must be submitted with an application:

- Single Line Diagram     Site Plan with site owner signature if different than Interconnection Customer     Specification Sheet(s)     Insurance Document

A DER with an energy storage component must additionally complete Exhibit B - For Energy Storage

A non-refundable processing fee of ~~up to \$100~~ must accompany this Application.

Interconnection Customer/Owner

Name: \_\_\_\_\_

Account Number: \_\_\_\_\_ Meter Number: \_\_\_\_\_

Mailing Address: \_\_\_\_\_

Telephone: \_\_\_\_\_ Email: \_\_\_\_\_

Application Agent / Company: \_\_\_\_\_

Telephone: \_\_\_\_\_ Email: \_\_\_\_\_

Distributed Energy Resource Information

Location (if different from above): \_\_\_\_\_

The Distributed Energy Resource is a single generating unit or multiple?  Single  Multiple

The Distributed Energy Resource is or includes energy storage?  Yes (Complete Exhibit B - For Energy Storage)  No

Type:  Solar  Wind Other: \_\_\_\_\_

Inverter Manufacturer: \_\_\_\_\_

Model: \_\_\_\_\_

AC Rated Nameplate Rating: \_\_\_\_\_(kWac)\_\_\_\_\_ (kVAac)  Single Phase  Three Phase

Export Capability Limited (e.g., through use of a control system, power relay(s), or other similar device settings of adjustments):  Yes  No

If yes, describe: \_\_\_\_\_

DER capacity (as described in MN DIP 5.14.3): \_\_\_\_\_

(kWac)

Is equipment certified (i.e. UL 1741 Listed)?  Yes (Certification is a Simplified Process requirement)

Installed DER System Cost (before incentives): \_\_\_\_\_

Estimated Installation Date: \_\_\_\_\_

Interconnection Customer Signature [This Section must be completed by the Customer]

The simpler Uniform Statewide Contract replaces the longer Interconnection Agreement (MN DIA) if the conditions of MN DIP 1.1.5 are met. A qualifying customer signing a Uniform Statewide Contract may elect to be additionally provided the MN DIA. Request a MN DIA?:

No  Yes

Disclaimer: The Area EPS Operator shall notify the Interconnection Customer with an opportunity to request a timeline extension (See MN DIP Section 1.8.2 and 5.2.2.) Failure by the Interconnection Customer to meet or request an extension for a timeline outlined in the MN DIP could result in a withdrawn queue position and the need to re-apply. INITIAL: \_\_\_\_\_

I designate the individual or company listed as my Application Agent to serve as my agent for the purpose of coordinating with the Area EPS Operator on my behalf throughout the interconnection process (see MN DIP 1.3.2.) INITIAL: \_\_\_\_\_

I hereby certify that, to the best of my knowledge, the information provided in this Application is true, and that I have appropriate Site Control in conformance with the MN DIP. I agree to abide by the Terms and Conditions for Interconnecting an Inverter-Based Distributed Energy Resource No Larger than 20 kW (Simplified Process) (see Exhibit A – Terms and Conditions for Interconnecting an Inverter-Based DER No Larger than 20 kW) and return the Certificate of Completion (see Exhibit C – Certificate of Completion) when the DER has been installed.

Interconnection Customer Signature: \_\_\_\_\_

Name (print): \_\_\_\_\_ Date: \_\_\_\_\_

*Send a completed and signed copy of this form with attachments to ([Northern States Power Company through its online portal available at www.xcelenergy.com](#) or other applicable [URL](#) insert Company name) at (insert email) or (e/o Address). Send application fee in electronic format as instructed by the online portal. Only if the online portal or electronic method of sending payment is not available, then mail materials to Xcel Energy, Distributed Generation*

~~*Interconnection Energy Resources, c/o VP Customer Solutions, 414 Nicollet Mall, Minneapolis, MN 55401. to (c/o Address) or make payment online by visiting (website [if applicable]).*~~

**Attachment 2: Simplified Application Form (cont'd)**

**Exhibit A – Terms and Conditions for Interconnecting an Inverter-Based DER No Larger than 20 kW**

1.0 Construction of the Facility

The Interconnection Customer (the “Customer”) may proceed to construct (including operational testing not to exceed two hours) the Distributed Energy Resource(s) when the Area EPS Operator (~~*Northern States Power Company, a Minnesota corporation, or*~~ the “Company”) approves the Interconnection Application (the “Application”).

2.0 Interconnection and Operation

The Customer may operate Distributed Energy Resource(s) and interconnect with the Company’s electric system once all of the following have occurred:

2.1. Upon completing construction, the Customer will cause the Distributed Energy Resource(s) to be inspected or otherwise certified by the appropriate local electrical wiring inspector with jurisdiction, and

2.2. The Customer returns the Certificate of Completion to the Company, and

2.3. The Company:

2.3.1 Shall have the opportunity to witness test as described in Minnesota Technical Requirements, but takes no liability for the results of the test. Completes its inspection of the Distributed Energy Resource(s) to ensure that all equipment has been appropriately installed and that all electrical connections have been made in accordance with applicable codes and standards. All inspections must be conducted by the Company, at its own expense, within ten Business Days after receipt of the Certificate of Completion and shall take place at a time agreeable to the Parties. The Company shall provide a written permission to operate authorization that the Distributed Energy Resource(s) has passed inspection or shall notify the Customer of what steps it must take to pass inspection within three (3) Business Days.

or

2.3.2 Does not schedule an inspection of the Distributed Energy Resource(s) within ten business days after receiving the Certificate of Completion, in

which case the witness test is deemed waived (unless the Parties agree otherwise).

or

2.3.3 Waives the right to inspect the Distributed Energy Resource(s).

2.4. The Company has the right to disconnect the Distributed Energy Resource(s) in the event of: 1) improper installation or failure to return the Certificate of Completion, or 2) does not meet any of the requirements of this Agreement or, 3) if applicable, refusal to sign Uniform Statewide Contract.

2.5. Revenue quality metering equipment must be installed and tested in accordance with applicable Minnesota Technical Requirements.

2.6. If the Distributed Energy Resource(s) either: 1) does not use default IEEE 1547-2018 functions and settings; or 2) is not yet subject to a developed national standard or national certification, then at the option of the Area EPS Operator there needs to be in place an operating agreement to document and govern the operation of the Distributed Energy Resource(s).

### 3.0 Safe Operations and Maintenance

The Customer shall be fully responsible to operate, maintain, and repair the Distributed Energy Resource(s) as required to ensure that it complies at all times with the interconnection standards to which it has been certified.

### 4.0 Access

The Company shall have access to the disconnect switch, if required by the Area EPS Operator, and metering equipment of the Distributed Energy Resource(s) at all times as described in Minnesota Technical Requirements. The Company shall provide reasonable notice to the Customer when possible prior to using its right of access.

### 5.0 Disconnection

The Company may temporarily disconnect the Distributed Energy Resource(s) upon the following conditions:

5.1. For scheduled outages upon reasonable notice.

5.2. For unscheduled outages or emergency conditions.

5.3. If the Distributed Energy Resource does not operate in the manner consistent with these Terms and Conditions.

5.4. The Company shall inform the Customer in advance of any scheduled disconnection, or as is reasonable after an unscheduled disconnection.



- 5.5. If the Customer is in Default it may be disconnected after a 60-day written notice is provided and the Default is not cured during this 60-day notice. This provision does not apply to disconnection based on outages or emergency conditions.

## 6.0 Treatment Similar to Other Retail Customers

- 6.1. The Customer may be disconnected consistent with the rules and practices for disconnecting other retail electrical customers

## 7.0 Indemnification

- 7.1. This provision protects each Party from liability incurred to third parties as a result of carrying out the provisions of this Agreement.
- 7.2. The Parties 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 to or death of any person or damage to property, demand, suits, recoveries, costs and expenses, court costs, attorney fees, and all other obligations by or to third parties, arising out of or resulting from the other Party's action or inactions of its obligations under this agreement on behalf of the indemnifying Party, except in cases of gross negligence or intentional wrongdoing by the indemnified Party.
- 7.3. This indemnification obligation shall apply notwithstanding any negligent or intentional acts, errors or omissions of the indemnified Party, but the indemnifying Party's liability to indemnify the indemnified Party shall be reduced in proportion to the percentage by which the indemnified Party's negligent or intentional acts, errors or omissions caused the damages.
- 7.4. Neither Party shall be indemnified for its damages resulting from its sole negligence, intentional acts or willful misconduct. These indemnity provisions shall not be construed to relieve any insurer of its obligation to pay claims consistent with the provisions of a valid insurance policy.
- 7.5. If an indemnified person is entitled to indemnification under this article as a result of a claim by a third party, and the indemnifying Party fails, after notice and reasonable opportunity to proceed under this article, to assume the defense of such claim, such indemnified person may at the expense of the indemnifying Party contest, settle or consent to the entry of any judgment with respect to, or pay in full, such claim.

7.6. If an indemnifying party is obligated to indemnify and hold any indemnified person harmless under this article, the amount owing to the indemnified person shall be the amount of such indemnified person's actual loss, net of any insurance or other recovery.

~~7.6.~~

7.7. Promptly after receipt by an indemnified person of any claim or notice of the commencement of any action or administrative or legal proceeding or investigation as to which the indemnity provided for in this article may apply, the indemnified person shall notify the indemnifying party of such fact. Any failure of or delay in such notification shall not affect a Party's indemnification obligation unless such failure or delay is materially prejudicial to the indemnifying party.

## 8.0 Insurance

The Parties agree to follow all applicable insurance requirements imposed by Minnesota. All insurance policies must be maintained with insurers authorized to do business in Minnesota. See MN DIP Section 5.10.

## 9.0 Limitation of Liability

Each party's liability to the other party for any loss, cost, claim, injury, liability, or expense, including reasonable attorney's fees, relating to or arising from any act or omission in its performance of this Agreement, 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 indirect, incidental, special, consequential, or punitive damages of any kind whatsoever, except as allowed under paragraph 6.0.

## 10.0 Termination

The agreement to operate in parallel may be terminated under the following conditions:

### 10.1. By the Customer

By providing written notice to the Company.

### 10.2. By the Company

If the Distributed Energy Resource(s) fails to operate for any consecutive 12 month period or the Customer fails to remedy a violation of these Terms and Conditions.

### 10.3. Permanent Disconnection

In the event this Agreement is terminated, the Company shall have the right to disconnect its facilities or direct the Customer to disconnect its Distributed Energy Resource.

### 10.4. Survival Rights

This Agreement shall continue in effect after termination to the extent necessary to allow or require either Party to fulfill rights or obligations that arose under the Agreement.

11.0 Assignment/Transfer of Ownership of the Facility

This Agreement shall survive the transfer of ownership of the Distributed Energy Resource(s) to a new owner when the new owner agrees in writing to comply with the terms of this Agreement and so notifies the Company.

**Exhibit B - For Energy Storage**

Application for:  Stand-alone storage as the DER  
 Storage as a component of a DER

*This form is required in addition to a completed Minnesota DER Interconnection Process (MN DIP) Application form for any DER with an energy storage component. Additional information in the application may be required. See Minnesota Technical Requirements.*

*(An application to interconnect is required only for storage designed to operate in parallel with the grid. Backup generators and electric vehicles that do not parallel need not apply.)*

Customer Account Number: \_\_\_\_\_

Address of Generating Facility: \_\_\_\_\_

City: \_\_\_\_\_ State: MN Zip: \_\_\_\_\_

Equipment Manufacturer: \_\_\_\_\_

Equipment Model: \_\_\_\_\_

Real Power, max continuous (kW): \_\_\_\_\_

Apparent Power, max continuous (kVA): \_\_\_\_\_

Power factor range of adjustability: \_\_\_\_\_

Real Power, peak AC Energy (kWh): \_\_\_\_\_

Available control operating modes: \_\_\_\_\_

Control modes being enabled for interconnection: \_\_\_\_\_

Is equipment UL 1741 Listed?  Yes  No

*Manufacturer specification sheet(s) are required to be additionally attached.*

Is the storage 100% charged by a net energy metering eligible energy source?  Yes  No

Source charging the storage (check all that apply): \_\_\_\_\_Utility \_\_\_\_\_Solar \_\_\_\_\_Wind  
\_\_\_\_\_Diesel \_\_\_\_\_Other: \_\_\_\_\_

Is the storage configured to export energy to the Area EPS?  Yes  No

Are the settings accessible to the end user?  Yes  No

For non-export, how does the system determine the magnitude of customer load?

\_\_\_\_\_

What is the process for changing operational modes of the energy storage?

\_\_\_\_\_

**Exhibit C – Certificate of Completion**

**Distributed Energy Resource Certificate of Completion**

**MN DIP Simplified Process Interconnection**

Customer: \_\_\_\_\_

Account Number: \_\_\_\_\_ Meter Number: \_\_\_\_\_

Application ID number: \_\_\_\_\_

Address of Distributed Energy Resource (DER):  
\_\_\_\_\_

City: \_\_\_\_\_ State: MN Zip: \_\_\_\_\_

Is the DER owner-installed? Yes No If no: Install

Company: \_\_\_\_\_

Contact: \_\_\_\_\_

Phone: \_\_\_\_\_ Email: \_\_\_\_\_

Electrician Name / License#: \_\_\_\_\_

*The DER has been installed and inspected in compliance with the local electrical permitting authority as verified by the signature below or the additionally attached document.*

Inspector Signature: \_\_\_\_\_

Print Name: \_\_\_\_\_ Date: \_\_\_\_\_

Authority Having Jurisdiction (city/county): \_\_\_\_\_

*As a condition of interconnection, electronically submit this completed form through the Area EPS Operator's online portal. Only if this online portal is not available, email a completed copy of this form to Northern States Power Company Distributed Generation Interconnection Energy Resources \_\_\_\_\_ at MNDER@xcelenergy.com*

*~~Electronic submission of this form through an Area EPS Operator's online portal [if one exists] shall be an alternative means to satisfy the Certificate of Completion submission requirements.~~*

*If the online portal is not available, you may also ~~prefer to mail the form,~~ please mail to: Xcel Energy, Distributed Generation Interconnection, c/o VP Customer Solutions Energy Resources, 414 Nicollet Mall, Minneapolis, MN 55401.*



Telephone:

Email:

If capacity addition or Material Modification to existing facility, please describe:

Will the DER be used for any of the following?

Net Metering? Yes \_\_\_ No \_\_\_

To Supply Power to the Interconnection Customer? Yes \_\_\_ No \_\_\_

To Supply Power to Area EPS? Yes \_\_\_ No \_\_\_

Requested Point of Common Coupling (at a minimum, provide: 1) an address or nearest cross-section and 2) GPS coordinates or an annotated aerial map):

Installed DER System Cost (before incentives): \_\_\_\_\_

Interconnection Customer's Requested In-Service Date:

**Distributed Energy Resource Information**

Data applies only to the Distributed Energy Resource not the Interconnection Facilities.

Energy Source:

- Solar       Wind       Storage       Hydro Type (e.g. Run-of-River):  
 Diesel       Natural Gas       Fuel Oil       Other (state type, e.g. solar + wind + storage):

Prime Mover:

- Photovoltaic       Microturbine       Reciprocating Engine       Fuel Cell  
 Gas Turbine       Steam Turbine       Wind Turbine       Other (state type):

Type of       Inverter       Synchronous       Induction      Generator:



DER Nameplate Rating (in kWac):

DER Nameplate kVAR:

Interconnection Customer or  
Customer-Sited Load (in kW, if  
none, so state):

Typical Reactive Load  
(if known):

Maximum Physical Export  
Capability Requested (in kW):

Export Capability Limited (e.g., through use of a control system, power relay(s), or other similar  
device settings of adjustments):  Yes  No

If yes, describe: \_\_\_\_\_

List components of the Distributed Energy Resource Certified Equipment:

	Equipment Type	Certifying Entity
1.	_____	_____
2.	_____	_____
3.	_____	_____
4.	_____	_____
5.	_____	_____

Is the prime mover compatible with the certified protective relay package?  Yes  No

Distributed Energy Resource  
Manufacturer, Model Name &  
Number:

Version Number:

Nameplate Rating in (Summer): (Winter):  
kW:

Nameplate Rating in (Summer): (Winter):  
kVA:

Individual Generator Power Factor

Rated Power Factor: Leading: Lagging:

Total Number of Distributed Energy Resources to be interconnected pursuant to this

Single Phase       Three Phase

Interconnection Application: \_\_\_\_\_

Inverter Manufacturer, Model  
Name & Number (if used):

List of adjustable set points for the protective equipment or software:

Note: A completed power systems load flow data sheet must be supplied with the Interconnection Application.

Distributed Energy Resource Characteristic Data (for inverter-based machines)

Max design fault contribution current: Instantaneous or RMS?  
Harmonic characteristics:  
Start-up requirements:

Distributed Energy Resource Characteristic Data (for rotating machines)

RPM frequency: \*Neutral Grounding Resistor (if applicable):

Synchronous Generators:

Direct Axis Synchronous Reactance,  $X_d$ : Zero Sequence Reactance,  $X_0$ :  
Direct Axis Transient Reactance,  $X'_d$ : KVA Base:  
Direct Axis Subtransient Reactance,  $X''_d$ : Field Volts:  
Negative Sequence Reactance,  $X_2$ : Field Amperes:

Induction Generators:

Motoring Power (kW): Exciting Current:  
I22t or K (Heating Time Constant): Temperature Rise:  
Rotor Resistance,  $R_r$ : Frame Size:  
Stator Resistance,  $R_s$ : Design Letter:  
Stator Reactance,  $X_s$ : Reactive Power Required In

Rotor Reactance,  $X_r$  Vars (No Load):  
 Magnetizing Reactive Power Required In  
 Reactance,  $X_m$ : Vars (Full Load):  
 Total Rotating Inertia, H:  
 Per Unit on kVA  
 Base

Short Circuit  
 Reactance,  $X_d''$ :

Note: Please contact the Area EPS Operator prior to submitting the Interconnection Application to determine if the specified information above is required.

Excitation and Governor System Data for Synchronous Generators Only

Provide appropriate IEEE model block diagram of excitation system, governor system and power system stabilizer (PSS) in accordance with the regional reliability council criteria. A PSS may be determined to be required by applicable studies. A copy of the manufacturer's block diagram may not be substituted.

**Interconnection Facilities Information**

Will a transformer be used between the DER and the Point of Common Coupling?  Yes  No

Will the transformer be provided by the Interconnection Customer?  Yes  No

Transformer Data (If Applicable, for Interconnection Customer-Owned Transformer):

Is the transformer:  Single Phase  Three Phase

Size (kVA): Transformer on kVA Base:  
 Impedance (%):

If Three Phase:

Transformer Volts:	Delta:	Wye:	Wye
Primary:			Grounded:
Transformer Volts:	Delta:	Wye:	Wye
Secondary:			Grounded:
Transformer Volts:	Delta:	Wye:	Wye
Tertiary:			Grounded:

Transformer Fuse Data (If Applicable, for Interconnection Customer-Owned Fuse):

(Attach copy of fuse manufacturer's Minimum Melt and Total Clearing Time-Current Curves)

Manufacturer: Type: Size: Speed:

Interconnecting Circuit Breaker (if applicable):

Manufacturer: \_\_\_\_\_ Type: \_\_\_\_\_  
 Load Rating Interrupting Rating Trip Speed  
 (Amps) (Amps): (Cycles):

Interconnection Protective Relays (If Applicable):

If Microprocessor-Controlled:

List of Functions and Adjustable Setpoints for the protective equipment or software:

	Setpoint Function	Minimum	Maximum
1.	_____	_____	_____
2.	_____	_____	_____
3.	_____	_____	_____
4.	_____	_____	_____
5.	_____	_____	_____
6.	_____	_____	_____

If Discrete Components:

(Enclose Copy of any Proposed Time-Overcurrent Coordination Curves)

Manufacturer:_____	Type:_____	Style/Catalog No.:_____	Proposed Setting:_____
Manufacturer:_____	Type:_____	Style/Catalog No.:_____	Proposed Setting:_____
Manufacturer:_____	Type:_____	Style/Catalog No.:_____	Proposed Setting:_____
Manufacturer:_____	Type:_____	Style/Catalog No.:_____	Proposed Setting:_____
Manufacturer:_____	Type:_____	Style/Catalog No.:_____	Proposed Setting:_____

Current Transformer Data (If Applicable):

(Enclose Copy of Manufacturer's Excitation and Ratio Correction Curves)

Manufacturer:

Type: \_\_\_\_\_ Accuracy \_\_\_\_\_ Proposed  
 Class: \_\_\_\_\_ Ratio  
 Connection:

Manufacturer:

Type: \_\_\_\_\_ Accuracy \_\_\_\_\_ Proposed  
 Class: \_\_\_\_\_ Ratio  
 Connection:

Potential Transformer Data (If Applicable):



Are Schematic Drawings Enclosed?

Yes  No

Enclose copies of documentation showing site control (MN DIP  
1.7)

Yes  No

Section

Is Available Documentation Enclosed?

Disclaimer: The Area EPS Operator shall notify the Interconnection Customer with an opportunity to request a timeline extension (See MN DIP Section 1.8.2 and 5.2.3.). Failure by the Interconnection Customer to meet and request an extension as described in MN DIP Section 5.2.3 for a timeline outlined in the MN DIP could result in a withdrawn queue position and the need to re-apply. INITIAL: \_\_\_\_\_

**Interconnection Customer Signature**

I hereby certify that, to the best of my knowledge, all the information provided in this Interconnection Application is true and correct.

Interconnection Customer:

Date:

#### **Attachment 4: Certification Codes and Standards**

Prior to Commission approval of the update of Minnesota Technical Requirements (anticipated in February 2019), the existing Minnesota Technical Requirements and the following standards shall be used in conjunction with the Minnesota Interconnection Process (MN DIP) and Minnesota Interconnection Agreement (MN DIA) for Distributed Energy Resources.<sup>14</sup> Once approved, the Minnesota DER Technical Interconnection and Interoperability Requirements will supersede this attachment.

When the stated version of the following standards is superseded by an approved revision then that revision shall apply.

IEEE 1547-2003 IEEE Standard for Interconnecting Distributed Resources with Electric Power Systems

IEEE 1547a-2014 IEEE Standard for Interconnecting Distributed Resources with Electric Power Systems – Amendment 1

IEEE 1547.1-2005 IEEE Standard Conformance Test Procedures for Equipment Interconnecting Distributed Resources with Electric Power Systems

IEEE 1547.1a-2015 (Amendment to IEEE Std 1547.1 – 2005) IEEE Standard Conformance Test Procedures for Equipment Interconnecting Distributed Resources with Electric Power Systems – Amendment 1

UL 1741 Inverters, Converters, Controllers, and Interconnection System Equipment for Use in Distributed Energy Resources (2010)

NFPA 70 (2017), National Electrical Code

IEEE Std C37.90.1(2012) (Revision of IEEE Std C37.90.1-2002), IEEE Standard for Surge Withstand Capability (SWC) Tests for Protective Relays and Relay Systems Associated with Electric Power Apparatus

IEEE Std C37.90.2 (2004) (Revision of IEEE Std C37.90.2-1995), IEEE Standard for Withstand Capability of Relay Systems to Radiated Electromagnetic Interference from Transceivers

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<sup>14</sup> This is an interim document while the Commission updates the Minnesota Distributed Energy Resource Interconnection and Interoperability Technical Requirements which includes alignment with the anticipated final IEEE 1547-2018 revision. For the transition period between Minnesota's existing statewide interconnection standards and the updated standards, both inverters certified to existing 1547.1 and 1547.1a-2015 (most current version); as well as, certified inverters per the expected revised 1547.1 standard should be acceptable.

IEEE Std C37.108-2002/1989 (Revision of C37.108-1989/2002), IEEE Guide for the Protection of Network Transformers

IEEE Std C57.12.44-2014 (Revision of IEEE Std C57.12.44-2005), IEEE Standard Requirements for Secondary Network Protectors

IEEE Std C62.41.2-2002, IEEE Recommended Practice on Characterization of Surges in Low-Voltage (1000V and Less) AC Power Circuits

IEEE Std C62.41.2-2002\_Cor 1-2012 (Corrigendum to IEEE Std C62.41.2-2002) - IEEE Recommended Practice on Characterization of Surges in Low-Voltage (1000 V and Less) AC Power Circuits Corrigendum 1: Deletion of Table A.2 and Associated Text

IEEE Std C62.45-2002 (Revision of IEEE Std C62.45-1992) - IEEE Recommended Practice on Surge Testing for Equipment Connected to Low-Voltage (1000 V and less) AC Power Circuits

ANSI C84.1-(2016) Electric Power Systems and Equipment – Voltage Ratings (60 Hertz)

IEEE Standards Dictionary Online, [Online]

NEMA MG 1-2016, Motors and Generators

IEEE Std 519-2014, IEEE Recommended Practices and Requirements for Harmonic Control in Electrical Power Systems



**Attachment 5: Certification of Distributed Energy Resource Equipment**

- 1.0 Distributed Energy Resource (DER) equipment proposed for use in an interconnection system shall be considered certified for interconnected operation if: 1) it has been tested in accordance with industry standards for continuous utility interactive operation in compliance with the appropriate codes and standards referenced below by any Nationally Recognized Testing Laboratory (NRTL) recognized by the United States Occupational Safety and Health Administration to test and certify interconnection equipment pursuant to the relevant codes and standards listed in MN DIP Attachment 4, 2) it has been labeled and is publicly listed by such NRTL at the time of the interconnection application, and 3) such NRTL makes readily available for verification all test standards and procedures it utilized in performing such equipment certification, and, with consumer approval, the test data itself. The NRTL may make such information available on its website and by encouraging such information to be included in the manufacturer's literature accompanying the equipment.
- 2.0 The Interconnection Customer must verify that the assembly and use of the equipment falls within the use or uses for which the equipment was tested, labeled, and listed by the NRTL.
- 3.0 Certified equipment shall not require further type-test review, testing, or additional equipment to meet the requirements of this interconnection procedure; however, nothing herein shall preclude the need for a DER Design Evaluation or an on-site commissioning test by the parties to the interconnection as provided for in the Minnesota Technical Requirements.
- 4.0 If the certified equipment package includes only interface components (switchgear, inverters, or other interface devices), then an Interconnection Customer must show that the generator or other electric source being utilized with the equipment package is compatible with the equipment package and is consistent with the testing and listing specified for this type of interconnection equipment.
- 5.0 Provided the generator or electric source, when combined with the equipment package, is within the range of capabilities for which it was tested by the NRTL, and does not violate the interface components' labeling and listing performed by the NRTL, no further type-test review, testing or additional equipment on the customer side of the Point of Common Coupling shall be required to be considered certified for the purposes of this interconnection procedure; however, nothing herein shall preclude the need for a DER Design Evaluation or an on-site commissioning test by the parties to the interconnection as provided for in the Minnesota Technical Requirements.
- 6.0 An equipment package does not include equipment provided by the Area EPS.

**Attachment 6: System Impact Study Agreement**

THIS AGREEMENT is made and entered into this \_\_\_\_ day of \_\_\_\_\_  
20\_\_ by and between \_\_\_\_\_,  
a \_\_\_\_\_ organized and existing under the laws of the State of  
\_\_\_\_\_, (“Interconnection Customer”), and Northern States Power Company, a Minnesota  
corporation, doing business as Xcel  
Energy \_\_\_\_\_, a \_\_\_\_\_ existing  
under the laws of the State of Minnesota, (“Area EPS Operator”). Interconnection Customer and  
Area EPS Operator each may be referred to as a “Party,” or collectively as the “Parties.”

**RECITALS**

**WHEREAS**, the Interconnection Customer is proposing to develop a Distributed Energy Resource (DER) or generating capacity addition to an existing DER consistent with the Interconnection Application completed by the Interconnection Customer on \_\_\_\_\_; and

**WHEREAS**, the Interconnection Customer desires to interconnect the DER with the Area EPS Operator’s electric system;

**WHEREAS**, the Interconnection Customer has requested the Area EPS Operator to perform a system impact study(s) to assess the impact of interconnecting the DER with the Area EPS Operator’s electric System, and potential Affected System(s);

**NOW, THEREFORE**, in consideration of and subject to the mutual covenants contained herein the Parties agreed as follows:

- 1.0 When used in this Agreement, with initial capitalization, the terms specified shall have the meanings indicated or the meanings specified in the standard Minnesota Distributed Energy Resources Interconnection Procedures (MN DIP.)
- 2.0 The Interconnection Customer elects and the Area EPS Operator shall cause to be performed a system impact study(s) consistent with the MN DIP. The scope of a system impact study shall be subject to the assumptions set forth in this Agreement; including Attachment A.
- 3.0 A system impact study will be based upon the technical information provided by Interconnection Customer in the Interconnection Application. The Area EPS Operator reserves the right to request additional technical information from the Interconnection Customer as may reasonably become necessary consistent with Good Utility Practice during the course of the system impact study.
- 4.0 A system impact study may, as necessary, consist of a short circuit analysis, a stability analysis, a power flow analysis, voltage drop and flicker studies, protection and set point coordination studies, and grounding reviews. A system impact study shall state the assumptions upon which it is based, state the results of the analyses, and provide the requirement or potential impediments to providing the requested interconnection service, including a preliminary indication of the cost and length of time that would be necessary to correct any problems identified in those analyses and implement the interconnection. A system impact study shall provide a list of facilities that are required as a result of the Interconnection Application and non-binding good faith estimates of cost responsibility and time to construct.
- 5.0 A distribution system impact study shall incorporate a distribution load flow study, an analysis of equipment interrupting ratings, protection coordination study, voltage drop and flicker studies, protection and set point coordination studies, grounding reviews, and the impact on electric system operation, as necessary.
- 6.0 Affected Systems may participate in the preparation of a system impact study, with a division of costs among such entities as they may agree. All Affected Systems shall be afforded an opportunity to review and comment upon a system impact study that covers potential adverse system impacts on their electric systems.
- 7.0 If the Area EPS Operator uses a queuing procedure for sorting or prioritizing projects and their associated cost responsibilities for any required Network Upgrades, the system impact study shall consider all Distributed Energy Resources (and with respect to paragraph 7.3 below, any identified Upgrades associated with such higher queued interconnection) that, on the date the system impact study is commenced –
  - 7.1. Are directly interconnected with the Area EPS Operator’s electric system; or
  - 7.2. Are interconnected with Affected Systems and may have an impact on the proposed interconnection; and

7.3. Have a pending higher queued Interconnection Application to interconnect with the Area EPS Operator's electric system.

- 8.0 A deposit of the equivalent of the good faith estimated cost of a distribution system impact study and the good faith estimated cost of a transmission system impact study shall be required from the Interconnection Customer when the signed Agreement is provided to the Area EPS Operator.
- 9.0 Any study fees shall be based on the Area EPS Operator's actual costs and will be invoiced to the Interconnection Customer within 20 Business Days after the study is completed and delivered and will include a summary of professional time.
- 10.0 The Interconnection Customer must pay any study costs that exceed the deposit without interest within 20 Business Days on receipt of the invoice or resolution of any dispute. If the deposit exceeds the invoiced fees, the Area EPS Operator shall refund such excess within 20 Business Days of the invoice without interest.

11.0 Governing Law, Regulatory Authority, and Rules

The validity, interpretation and enforcement of this Agreement and each of its provisions shall be governed by the laws of the state of Minnesota. This Agreement is subject to all Applicable Laws and Regulations. Each Party expressly reserves the right to seek changes in, appeal, or otherwise contest any laws, orders, or regulations of a Governmental Authority.

12.0 Amendment

The Parties may amend this Agreement by a written instrument duly executed by both Parties.

13.0 No Third-Party Beneficiaries

This Agreement is not intended to and does not create rights, remedies, or benefits of any character whatsoever in favor of any persons, corporations, associations, or entities other than the Parties, and the obligations herein assumed are solely for the use and benefit of the Parties, their successors in interest and where permitted, their assigns.

14.0 Waiver

- 14.1. The failure of a Party to this Agreement to insist, on any occasion, upon strict performance of any provision of this Agreement will not be considered a waiver of any obligation, right, or duty of, or imposed upon, such Party.
- 14.2. Any waiver at any time by either Party of its rights with respect to this Agreement shall not be deemed a continuing waiver or a waiver with respect to any other failure to comply with any other obligation, right, duty of this Agreement. Termination or default of this Agreement for any reason by

Interconnection Customer shall not constitute a waiver of the Interconnection Customer's legal rights to obtain an interconnection from the Area EPS Operator. Any waiver of this Agreement shall, if requested, be provided in writing.

#### 15.0 Multiple Counterparts

This Agreement may be executed in two or more counterparts, each of which is deemed an original but all constitute one and the same instrument. Electronic signatures are acceptable if the Area EPS Operator has made such a determination pursuant to MN DIP 1.2.1.1.

#### 16.0 No Partnership

This Agreement shall not be interpreted or construed to create an association, joint venture, agency relationship, or partnership between the Parties or to impose any partnership obligation or partnership liability upon either Party. Neither Party shall have any right, power or authority to enter into any agreement or undertaking for, or act on behalf of, or to act as or be an agent or representative of, or to otherwise bind, the other Party.

#### 17.0 Severability

If any provision or portion of this Agreement shall for any reason be held or adjudged to be invalid or illegal or unenforceable by any court of competent jurisdiction or other Governmental Authority, (1) such portion or provision shall be deemed separate and independent, (2) the Parties shall negotiate in good faith to restore insofar as practicable the benefits to each Party that were affected by such ruling, and (3) the remainder of this Agreement shall remain in full force and effect.

#### 18.0 Subcontractors

Nothing in this Agreement shall prevent a Party from utilizing the services of any subcontractor as it deems appropriate to perform its obligations under this Agreement; provided, however, that each Party shall require its subcontractors to comply with all applicable terms and conditions of this Agreement in providing such services and each Party shall remain primarily liable to the other Party for the performance of such subcontractor.

- 18.1. The creation of any subcontract relationship shall not relieve the hiring Party of any of its obligations under this Agreement. The hiring Party shall be fully responsible to the other Party for the acts or omissions of any subcontractor the hiring Party hires as if no subcontract had been made; provided, however, that in no event shall the Area EPS Operator be liable for the actions or inactions of the Interconnection Customer or its

subcontractors with respect to obligations of the Interconnection Customer under this Agreement. Any applicable obligation imposed by this Agreement upon the hiring Party shall be equally binding upon, and shall be construed as having application to, any subcontractor of such Party.

18.2. The obligations under this article will not be limited in any way by any limitation of subcontractor’s insurance.

19.0 Inclusion of Area EPS Operator Tariffs and Rules

The interconnection services provided under this Agreement shall at all times be subject to the terms and conditions set forth in the tariff schedules and rules applicable to the electric service provided by the Area EPS, which tariff schedules and rules are hereby incorporated into this Agreement by this reference. Notwithstanding any other provisions of this Agreement, the Area EPS Operator shall have the right to unilaterally file with the Minnesota Public Utilities Commission, pursuant to the Commission’s rules and regulations, an application for change in rates, charges, classification, service, tariff, or rule or any agreement relating thereto. The Interconnection Customer shall also have the right to unilaterally file with the Minnesota Public Utilities Commission, pursuant to the Commission’s rules and regulations, an application for change in rates, charges, classification, service, tariff, or rule or any agreement relating thereto. Each Party shall be have the right to protest any such filing by the other Party and/or to participate fully in any proceeding before the Minnesota Public Utilities Commission in which such modifications may be considered, pursuant to the Commission’s rules and regulations.

**IN WITNESS THEREOF**, the Parties have caused this Agreement to be duly executed by their duly authorized officers or agents on the day and year first above written.

<p><b><u>Northern States Power Company, a Minnesota corporation (Area EPS Operator)</u></b></p>	<p>_____</p> <p><b><u>(Interconnection Customer)</u></b></p>
<p>Signed: _____</p>	<p>Signed: _____</p>
<p>Name (Printed): _____</p>	<p>Name (Printed): _____</p>
<p>Title: _____</p>	<p>Title: _____</p>

~~[Insert name of Area EPS Operator] [Insert name of Interconnection Customer]~~

\_\_\_\_\_

Signed: \_\_\_\_\_ Signed: \_\_\_\_\_

Name (Printed): \_\_\_\_\_ Name (Printed): \_\_\_\_\_

\_\_\_\_\_

Title: \_\_\_\_\_ Title: \_\_\_\_\_

**Attachment 6: System Impact Study Agreement (cont'd)**

**Attachment A**

**Assumptions Used in Conducting the System Impact Study**

The system impact study shall be based upon the following assumptions:

- 1) Designation of Point of Common Coupling and configuration to be studied.
- 2) Designation of alternative Points of DER Interconnection and configuration.

1) and 2) are to be completed by the Interconnection Customer. Other assumptions (listed below) are to be provided by the Interconnection Customer and the Area EPS Operator. The Area EPS Operator shall use the Reference Point for Applicability which is either the Point of Common Coupling or the Point(s) of DER Interconnection as described in IEEE 1547.

**Additional DER technical data required for System Impact Study**

If applicable, the Area EPS Operator shall list below any additional technical data that is required to adequately perform the System Impact Study. As indicated in MN DIP section 4.3.3, this information is to be returned with the signed system impact study agreement and deposit.



**Attachment 7: Facilities Study Agreement**

THIS AGREEMENT is made and entered into this \_\_\_\_ day of \_\_\_\_\_  
\_20\_\_ by and between \_\_\_\_\_,  
a \_\_\_\_\_ organized and existing under the laws of the State of \_\_\_\_\_, (“Interconnection Customer,”) and  
Northern States Power Company, a Minnesota corporation, doing business as Xcel Energy, a \_\_\_\_\_  
existing under the laws of the State of \_\_\_\_\_,  
\_ (“Area EPS Operator”). Interconnection Customer and Area EPS Operator each may be referred to as a “Party,” or collectively as the “Parties.”

**RECITALS**

**WHEREAS**, the Interconnection Customer is proposing to develop a Distributed Energy Resource or generating capacity addition to an existing Distributed Energy Resource consistent with the Interconnection Application completed by the Interconnection Customer on \_\_\_\_\_; and

**WHEREAS**, the Interconnection Customer desires to interconnect the Distributed Energy Resource with the Area EPS Operator’s Distribution System;

**WHEREAS**, the Area EPS Operator has completed Initial Review, Supplemental Review, and/or a system impact study and provided the results of said review to the Interconnection Customer, or determined none was required; and

**WHEREAS**, the Interconnection Customer has requested the Area EPS Operator to perform a facilities study to specify, and estimate the cost of, the equipment, engineering, procurement and construction work needed to implement the conclusions of the above noted review in accordance with Good Utility Practice to physically and electrically connect the Distributed Energy Resource with the Area EPS Operator’s Distribution System.

**NOW, THEREFORE**, in consideration of and subject to the mutual covenants contained herein the Parties agreed as follows:

- 1.0 When used in this Agreement, with initial capitalization, the terms specified shall have the meanings indicated or the meanings specified in the standard State of Minnesota Distributed Energy Resources Interconnection Procedures (MN DIP).
- 2.0 The Interconnection Customer elects and the Area EPS Operator shall cause a facilities study consistent with the standard MN DIP to be performed. The scope of the facilities study shall be subject to data provided in Attachment A to this Agreement.
- 3.0 The facilities study shall specify and estimate the cost of the equipment, engineering, procurement and construction work (including overheads) needed to implement the conclusions of the system impact study(s). The facilities study shall also identify: 1) the electrical switching configuration of the equipment, including, without limitation, transformer, switchgear, meters, and other station equipment, 2) the nature and estimated cost of the Area EPS Operator's Interconnection Facilities and Upgrades necessary to accomplish the interconnection, and 3) an estimate of the time required to complete the construction and installation of such facilities.
- 4.0 The Area EPS Operator may propose to group facilities required for more than one Interconnection Customer in order to minimize facilities costs through economies of scale, but any Interconnection Customer may require the installation of facilities required for its own Distributed Energy Resource if it is willing to pay the costs of those facilities.
- 5.0 A deposit of the good faith estimate of the facilities study costs shall be required from the Interconnection Customer and provided when the signed Agreement is provided to the Area EPS Operator.
- 6.0 Any study fees shall be based on the Area EPS Operator's actual costs and will be invoiced to the Interconnection Customer within 20 Business Days after the study is completed and delivered and will include a summary of professional time.
- 7.0 The Interconnection Customer must pay any study costs that exceed the deposit without interest within 20 Business Days on receipt of the invoice or resolution of any dispute. If the deposit exceeds the invoiced fees, the Area EPS Operator shall refund such excess within 20 Business Days of the invoice without interest.
- 8.0 Governing Law, Regulatory Authority, and Rules  
The validity, interpretation and enforcement of this Agreement and each of its provisions shall be governed by the laws of the state of Minnesota. This Agreement is subject to all Applicable Laws and Regulations. Each Party expressly reserves the right to seek changes in, appeal, or otherwise contest any laws, orders, or regulations of a Governmental Authority.
- 9.0 Amendment  
The Parties may amend this Agreement by a written instrument duly executed by both Parties.

10.0 No Third-Party Beneficiaries

This Agreement is not intended to and does not create rights, remedies, or benefits of any character whatsoever in favor of any persons, corporations, associations, or entities other than the Parties, and the obligations herein assumed are solely for the use and benefit of the Parties, their successors in interest and where permitted, their assigns.

11.0 Waiver

- 11.1. The failure of a Party to this Agreement to insist, on any occasion, upon strict performance of any provision of this Agreement will not be considered a waiver of any obligation, right, or duty of, or imposed upon, such Party.
- 11.2. Any waiver at any time by either Party of its rights with respect to this Agreement shall not be deemed a continuing waiver or a waiver with respect to any other failure to comply with any other obligation, right, duty of this Agreement. Termination or default of this Agreement for any reason by Interconnection Customer shall not constitute a waiver of the Interconnection Customer's legal rights to obtain an interconnection from the Area EPS Operator. Any waiver of this Agreement shall, if requested, be provided in writing.

12.0 Multiple Counterparts

This Agreement may be executed in two or more counterparts, each of which is deemed an original but all constitute one and the same instrument. Electronic signatures are acceptable if the Area EPS Operator has made such a determination pursuant to MN DIP 1.2.1.1.

13.0 No Partnership

This Agreement shall not be interpreted or construed to create an association, joint venture, agency relationship, or partnership between the Parties or to impose any partnership obligation or partnership liability upon either Party. Neither Party shall have any right, power or authority to enter into any agreement or undertaking for, or act on behalf of, or to act as or be an agent or representative of, or to otherwise bind, the other Party.

14.0 Severability

If any provision or portion of this Agreement shall for any reason be held or adjudged to be invalid or illegal or unenforceable by any court of competent jurisdiction or other Governmental Authority, (1) such portion or provision shall be deemed separate and independent, (2) the Parties shall negotiate in good faith to restore insofar as practicable the benefits to each Party that were affected by such ruling, and (3) the remainder of this Agreement shall remain in full force and effect.

15.0 Subcontractors

Nothing in this Agreement shall prevent a Party from utilizing the services of any subcontractor as it deems appropriate to perform its obligations under this Agreement; provided, however, that each Party shall require its subcontractors to comply with all applicable terms and conditions of this Agreement in providing such services and each Party shall remain primarily liable to the other Party for the performance of such subcontractor.

15.1. The creation of any subcontract relationship shall not relieve the hiring Party of any of its obligations under this Agreement. The hiring Party shall be fully responsible to the other Party for the acts or omissions of any subcontractor the hiring Party hires as if no subcontract had been made; provided, however, that in no event shall the Area EPS Operator be liable for the actions or inactions of the Interconnection Customer or its subcontractors with respect to obligations of the Interconnection Customer under this Agreement. Any applicable obligation imposed by this Agreement upon the hiring Party shall be equally binding upon, and shall be construed as having application to, any subcontractor of such Party.

15.2. The obligations under this article will not be limited in any way by any limitation of subcontractor's insurance.

16.0 Inclusion of Area EPS Operator Tariffs and Rules

The interconnection services provided under this Agreement shall at all times be subject to the terms and conditions set forth in the tariff schedules and rules applicable to the electric service provided by the Area EPS, which tariff schedules and rules are hereby incorporated into this Agreement by this reference. Notwithstanding any other provisions of this Agreement, the Area EPS Operator shall have the right to unilaterally file with the MPUC, pursuant to the MPUC's rules and regulations, an application for change in rates, charges, classification, service, tariff, or rule or any agreement relating thereto. The Interconnection Customer shall also have the right to unilaterally file with the MPUC, pursuant to the MPUC's rules and regulations, an application for change in rates, charges, classification, service, tariff, or rule or any agreement relating thereto. Each Party shall have the right to protest any such filing by the other Party and/or to participate fully in any proceeding before the MPUC in which such modifications may be considered, pursuant to the MPUC's rules and regulations.

17.0 Data to be provided by the Interconnection Customer with the Facilities Study Agreement

- 17.1. The Interconnection Customer shall be available to meet on site with the Area EPS Operator within 5 Business Days of signing the Facilities Study Agreement. The personnel furnished by the Interconnection Customer for this site meeting shall bring detailed information on the site layout. The Area EPS Operator may request the Interconnection Customer physically places stakes at the location of the major components.<sup>15</sup>
- 17.2. The Interconnection Customer shall furnish a final site plan detailing the location of major equipment at the time this agreement is returned. The Point of Common Coupling (PCC) and Point of DER Connection (PoC) shall be clearly marked. The site plan shall depict any nearby roads and be labeled with the road name. Accurate dimensions shall be included on the site plan. The proper emergency (911) address, corresponding to the site, shall be labeled on the site plan.
- 17.3. The Interconnection Customer shall furnish a final one-line diagram detailing the electrical connections between major components. The one-line shall be returned with the signed Facilities Study Agreement.
- 17.4. Technical cut sheets on all equipment related to metering shall be provided by the Interconnection Customer along with the signed Facilities Study Agreement.

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<sup>15</sup> Examples of major components include, but are not limited to, interconnection transformers, breakers, fuses, reclosers, meters, current transformers (CTs), potential transformers (PTs), switch cabinets, inverters.

- 17.5. If available, copies of Conditional Use Permit(s) from all necessary authorities shall be returned by the Interconnection Customer with the signed Facilities Study Agreement.
- 17.6. The Interconnection Customer shall secure any necessary easements from private land owners prior to signing the Facilities Study Agreement. Documentation of any such agreements shall be provided to the Area EPS Operator.
- 17.7. In the event that the Area EPS Operator determines a site survey is necessary in order to complete a Facilities Study, the Interconnection Customer shall make good faith efforts to complete the site survey in a timely manner.
- 17.8. The Facilities Study assumes all land use permits required for the interconnection will be approved by the proper authorities. Permits are submitted after the Interconnection Agreement is signed and may impact project costs (i.e., overhead to underground requirement.)
- 17.9. The Interconnection Customer and Area EPS Operator shall provide a single point of contact for design and construction related matters. The Interconnection Customer single point of contact shall respond in a timely manner to Area EPS Operator questions during the Facilities Study.
- 17.10. In the event that an Interconnection Customer does not provide the necessary information described in this agreement, or if the Interconnection Customer takes more than five (5) Business Days to respond to a question during the Facilities Study, the Facilities Study timeframe shall pause until the question is resolved.

IN WITNESS WHEREOF, the Parties have caused this Agreement to be duly executed by their duly authorized officers or agents on the day and year first above written.

<u><b>Northern States Power Company, a          Minnesota corporation          (Area EPS Operator)</b></u>	<u>_____</u> <u><b>(Interconnection Customer)</b></u>
Signed: _____	Signed: _____
Name (Printed): _____	Name (Printed): _____
Title: _____	Title: _____

[Insert name of Area EPS Operator] [Insert name of Interconnection Customer]

\_\_\_\_\_

Signed \_\_\_\_\_ Signed \_\_\_\_\_

Name (Printed): \_\_\_\_\_ Name (Printed): \_\_\_\_\_

\_\_\_\_\_

Title \_\_\_\_\_ Title \_\_\_\_\_

**Attachment 8: MN DIP Flow Charts**



# Minnesota Distributed Energy Resource Interconnection Agreement (MN DIA)

V. 2.3

(As adopted for Northern States Power Company)

\_\_\_\_\_

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This Interconnection Agreement (“Agreement”) is made and entered into this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_, by Northern States Power Company, a Minnesota corporation, doing business as Xcel Energy \_\_\_\_\_ (“Area EPS Operator”), and \_\_\_\_\_ (“Interconnection Customer”) each hereinafter sometimes referred to individually as “Party” or both referred to collectively as the “Parties.”

Area EPS Operator Information

Area EPS Operator: Northern States Power Company, a Minnesota corporation

Attention: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Phone: \_\_\_\_\_ Email: \_\_\_\_\_

Interconnection Customer Information

Interconnection Customer: \_\_\_\_\_

Attention: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Phone: \_\_\_\_\_ Email: \_\_\_\_\_

Interconnection Customer Application No: \_\_\_\_\_

Distributed Energy Resource Information (To be completed by the Area EPS Operator)

Type of DER System (e.g.Solar, Wind, CHP, Solar+Storage): \_\_\_\_\_

Nameplate Rating \_\_\_\_\_(ac) DER capacity (as described in MN DIP 5.14.3))  
\_\_\_\_\_(ac)

Address of DER system: \_\_\_\_\_

City \_\_\_\_\_ State MN Zipcode \_\_\_\_\_

In consideration of the mutual covenants set forth herein, the Parties agree as follows:

## 1. Article 1. Scope and Limitations of Agreement

- 1.1. This Agreement is intended to provide for the Interconnection Customer to interconnect at the Point of Common Coupling and operate a Distributed Energy Resource with a Nameplate Rating of 10 Megawatts (MW) or less in parallel with the Area EPS at the location identified above and in the Interconnection Application.
- 1.2. This Agreement shall be used for all Interconnection Applications submitted under the Minnesota Distributed Energy Resources Interconnection Process (MN DIP) except for those submitted and processed under the Simplified Process contained in MN DIP Section 2 or qualify and chooses under MN DIP Section 1.1.5 for the Uniform Statewide Contract to replace the need for this Agreement.
- 1.3. This Agreement governs the terms and conditions under which the Interconnection Customer's Distributed Energy Resource will interconnect with, and operate in parallel with, the Area EPS Operator's Distribution System.
- 1.4. Capitalized terms used herein shall have the meanings specified in the Glossary of Terms in Attachment 1, the MN DIP, or the body of this Agreement.
- 1.5. This Agreement does not constitute an agreement to purchase or deliver the Interconnection Customer's power. The purchase or delivery of power and other services that the Interconnection Customer may require will be covered under separate agreements, if any. The Interconnection Customer will be responsible for separately making all necessary arrangements (including scheduling) for delivery of electricity with the applicable Area EPS Operator.
- 1.6. Nothing in this Agreement is intended to affect any other agreement between the Area EPS Operator and the Interconnection Customer.
- 1.7. Responsibilities of the Parties

- 1.7.1. The Parties shall perform all obligations of this Agreement in accordance with the MN DIP, Minnesota Technical Requirements, all Applicable Laws and Regulations, Operating Requirements, and Good Utility Practice.
- 1.7.2. The Interconnection Customer shall construct, interconnect, operate and maintain its Distributed Energy Resource and construct, operate, and maintain its Interconnection Facilities in accordance with the applicable manufacturer's recommended maintenance schedule and, in accordance with this Agreement, and with Good Utility Practice.
- 1.7.3. The Area EPS Operator shall construct, operate, and maintain its Distribution System and its Interconnection Facilities in accordance with this Agreement, and with Good Utility Practice.
- 1.7.4. The Interconnection Customer agrees to construct its facilities or systems in accordance with the Minnesota Technical Requirements and this Agreement; including, applicable specifications that meet or exceed those provided by the National Electrical Safety Code, the American National Standards Institute, IEEE, Underwriter's Laboratory, and Operating Requirements in effect at the time of construction and other applicable national and state codes and standards. The Interconnection Customer agrees to design, install, maintain, and operate its Distributed Energy Resource so as to reasonably minimize the likelihood of a disturbance adversely affecting or impairing the system or equipment of the Area EPS Operator and any Affected Systems.
- 1.7.5. Each Party shall operate, maintain, repair, and inspect, and shall be fully responsible for the facilities that it now owns or subsequently owns unless otherwise specified in the Attachments to this Agreement. Each Party shall be responsible for the safe installation, maintenance, repair and condition of their respective lines and appurtenances on their respective sides of the point of common coupling. The Area EPS Operator and the Interconnection Customer, as appropriate, shall provide Interconnection Facilities that adequately protect the Area EPS Operator's Distribution System, personnel, and other persons from damage and injury. The allocation of responsibility for the design, installation, operation, maintenance and ownership of Interconnection Facilities shall be delineated in the Attachments to this Agreement.
- 1.7.6. The Area EPS Operator shall coordinate with all Affected Systems to support the interconnection.

#### 1.8. Parallel Operation Obligations

Once the Distributed Energy Resource has been authorized to commence parallel operation, the Interconnection Customer shall abide by all rules and procedures pertaining to the parallel operation of the Distributed Energy Resource in the applicable control area, including, but not limited to; 1) the rules and procedures concerning the operation of generation set forth in the Tariff or by the applicable system operator(s) for the Area EPS Operator's Distribution System provided or referenced in an attachment to this Agreement and; 2) the Operating Requirements set forth in Attachment 5 of this Agreement. The Minnesota Technical Requirements for interconnection are covered in a separate document, a copy of which has been made available to the Interconnection Customer and incorporated and made part of this Agreement by this reference.

#### 1.9. Metering

As described in MN DIP 5.4, the Interconnection Customer shall be responsible for the Area EPS Operator's reasonable and necessary cost for the purchase, installation, operation, maintenance, testing, repair, and replacement of metering and data acquisition equipment specified in Attachments 2 and 3 of this Agreement. The Interconnection Customer's metering (and data acquisition, as required) equipment shall conform to applicable industry rules and Operating Requirements.

#### 1.10. Distributed Energy Resource Capabilities and Grid Reliability

1.10.1. The Minnesota Technical Requirements outlines the Parties responsibilities consistent with IEEE 1547 Standard for Interconnection and Interoperability of Distributed Energy Resources with Associated Electric Power Systems Interfaces which provides requirements relevant to the interconnection and interoperability performance, operation and testing, and, to safety, maintenance and security considerations.

1.10.2. The Area EPS Operator may offer the Interconnection Customer the option to utilize required DER capabilities to mitigate Interconnection Customer costs related to Upgrades or Interconnection Facilities to address anticipated system impacts from the engineering review (i.e., Initial Review, Supplemental Review, or Study Process described in the MN DIP.)

## 2. Article 2. Inspection, Testing, Authorization, and Right of Access

### 2.1. Equipment Testing and Inspection



As described in MN DIP Section 5.7, the Interconnection Customer shall test and inspect its Distributed Energy Resource and Interconnection Facilities prior to interconnection pursuant to Minnesota Technical Requirements and this Agreement.

2.2. Authorization Required Prior to Parallel Operation

As described in MN DIP Section 5.8, the Area EPS Operator shall use Reasonable Efforts to list applicable parallel operation requirements by attaching the Minnesota Technical Requirements and/or including them in Attachment 5 to this Agreement. Additionally, the Area EPS Operator shall notify the Interconnection Customer of any changes to these requirements as soon as they are known. Pursuant to the MN DIP 5.8.2, the Interconnection Customer shall not operate its Distributed Energy Resource in parallel with the Area EPS Operator's Distribution System without prior written authorization of the Area EPS Operator.

2.3. Right of Access

2.3.1. Upon reasonable notice, the Area EPS Operator may send a qualified person to the premises of the Interconnection Customer at or immediately before the time the Distributed Energy Resource first produces energy to inspect the interconnection, and observe the commissioning of the Distributed Energy Resource (including any required testing), startup, and operation for a period of up to three Business Days after initial start-up of the unit. In addition, the Interconnection Customer shall notify the Area EPS Operator at least five Business Days prior to conducting any on-site verification testing of the Distributed Energy Resource.

2.3.2. Following the initial inspection process described above, at reasonable hours, and upon reasonable notice, or at any time without notice in the event of an emergency or hazardous condition, the Area EPS Operator shall have access to the Interconnection Customer's premises for any reasonable purpose in connection with the performance of the obligations imposed on it by this Agreement or if necessary to meet its legal obligation to provide service to its customers.

2.3.3. Each Party shall be responsible for its costs associated with following this article as outlined in MN DIP Section 5.7.2 and the Minnesota Technical Requirements.

### 3. Article 3. Effective Date, Term, Termination, and Disconnection

3.1. Effective Date

This Agreement shall become effective upon execution by the Parties.

3.2. Term of Agreement

This Agreement shall become effective on the Effective Date and shall remain in effect from the Effective Date unless terminated earlier in accordance with article 3.3 of this Agreement.

3.3. Termination

No termination shall become effective until the Parties have complied with all Applicable Laws and Regulations applicable to such termination.

3.3.1. The Interconnection Customer may terminate this Agreement at any time by giving the Area EPS Operator 20 Business Days written notice.

3.3.2. Either Party may terminate this Agreement after Default pursuant to article 7.7.

3.3.3. Upon termination of this Agreement, the Distributed Energy Resource will be disconnected from the Area EPS Operator's Distribution System. All costs required to effectuate such disconnection shall be borne by the terminating Party, unless such termination resulted from the non-terminating Party's Default of this MN DIA or such non-terminating Party otherwise is responsible for these costs under this MN DIA.

3.3.4. The termination of this Agreement shall not relieve either Party of its liabilities and obligations, owed or continuing at the time of the termination.

3.3.5. The provisions of this article shall survive termination or expiration of this Agreement.

3.4. Temporary Disconnection

Temporary disconnection shall continue only for so long as reasonably necessary under Good Utility Practice.

3.4.1. Emergency Conditions

Under Emergency Conditions, the Area EPS Operator may immediately suspend interconnection service and temporarily disconnect the Distributed Energy Resource. The Area EPS Operator shall use Reasonable Efforts to notify the Interconnection Customer promptly when it becomes aware of an Emergency Condition that may reasonably be expected to affect the Interconnection Customer's operation of the Distributed Energy Resource. The Interconnection Customer shall use Reasonable Efforts to notify the Area EPS Operator promptly when it becomes aware of an Emergency Condition that may reasonably be expected to affect the Area EPS Operator's Distribution System or any Affected Systems. To the extent information is known, the notification shall describe the

Emergency Condition, the extent of the damage or deficiency, the expected effect on the operation of both Parties' facilities and operations, its anticipated duration, and the necessary corrective action.

3.4.2. Routine Maintenance, Construction, and Repair

The Area EPS Operator may interrupt interconnection service or curtail the output of the Distributed Energy Resource and temporarily disconnect the Distributed Energy Resource from the Area EPS Operator's Distribution System when necessary for routine maintenance, construction, or repairs on the Area EPS Operator's Distribution System. The Area EPS Operator shall use Reasonable Efforts to provide the Interconnection Customer with three Business Days notice prior to such interruption. The Area EPS Operator shall use Reasonable Efforts to coordinate such reduction or temporary disconnection with the Interconnection Customer.

3.4.3. Forced Outage

During any forced outage, the Area EPS Operator may suspend interconnection service to effect immediate repairs on the Area EPS Operator's Distribution System. The Area EPS Operator shall use Reasonable Efforts to provide the Interconnection Customer with prior notice. If prior notice is not given, the Area EPS Operator shall, upon request, provide the Interconnection Customer written documentation after the fact explaining the circumstances of the disconnection.

3.4.4. Adverse Operating Effects

The Area EPS Operator shall notify the Interconnection Customer as soon as practicable if, based on Good Utility Practice, operation of the Distributed Energy Resource may cause disruption or deterioration of service to other customers served from the same electric system, or if operating the Distributed Energy Resource could cause damage to the Area EPS Operator's Distribution System or Affected Systems. Supporting documentation used to reach the decision to disconnect shall be provided to the Interconnection Customer upon request. If, after notice, the Interconnection Customer fails to remedy the adverse operating effect within a reasonable time, the Area EPS Operator may disconnect the Distributed Energy Resource. The Area EPS Operator shall provide the Interconnection Customer with five Business Day notice of such disconnection, unless the provisions of article 3.4.1 apply.

3.4.5. Modification of the Distributed Energy Resource

The Interconnection Customer must receive written authorization from the Area EPS Operator before making any change to the Distributed Energy Resource that may have a material impact on the safety or reliability of the Distribution System. Such authorization shall not be unreasonably withheld if the modification is not a

Material Modification. Material Modifications, including an increase nameplate rating or capacity, may require the Interconnection Customer to submit a new Interconnection Application as described in MN DIP Section 1.6.2. If the Interconnection Customer makes such modification without the Area EPS Operator's prior written authorization, the latter shall have the right to temporarily disconnect the Distributed Energy Resource.

3.4.6. Reconnection

The Parties shall cooperate with each other to restore the Distributed Energy Resource, Interconnection Facilities, and the Area EPS Operator's Distribution System to their normal operating state as soon as reasonably practicable following a temporary disconnection.

3.4.7 Treatment Similar to Other Retail Customers

If the Interconnection Customer receives retail electrical service at the same site as the Distributed Energy Resource, it may also be disconnected consistent with the rules and practices for disconnecting other retail electrical customers.

3.4.8 Disconnection for Default

If the Interconnection Customer is in Default it may be disconnected after a 60 day written notice is provided and the Default is not cured during this 60 day notice. This provision does not apply to disconnection based on Emergency Conditions.

## 4. Article 4. Cost Responsibility for Interconnection Facilities and Distribution Upgrades

### 4.1. Interconnection Facilities

4.1.1. The Interconnection Customer shall pay for the cost of the Interconnection Facilities itemized in Attachment 2 of this Agreement. The Area EPS Operator shall provide a good faith estimate cost, including overheads, for the purchase and construction of its Interconnection Facilities and provide a detailed itemization of such costs. Costs associated with Interconnection Facilities may be shared with other entities that may benefit from such facilities by agreement of the Interconnection Customer, such other entities, and the Area EPS Operator.

4.1.2. The Interconnection Customer shall be responsible for its share of all reasonable expenses, including overheads, associated with (1) owning, operating, maintaining, repairing, and replacing its own Interconnection Facilities, and (2) operating, maintaining, repairing, and replacing the Area EPS Operator's Interconnection Facilities.

#### 4.2. Distribution Upgrades

The Area EPS Operator shall design, procure, construct, install, and own the Distribution Upgrades described in Attachment 6 of this Agreement. The Area EPS Operator shall provide a good faith estimate cost, including overheads, for the purchase and construction of the Distribution Upgrades and provide a detailed itemization of such costs. If the Area EPS Operator and the Interconnection Customer agree, the Interconnection Customer may construct Distribution Upgrades that are located on land owned by the Interconnection Customer. The actual cost of the Distribution Upgrades, including overheads, shall be directly assigned to the Interconnection Customer.

### 5. Article 5. Cost Responsibility for Network Upgrades

#### 5.1. Applicability

No portion of this Article 5 shall apply unless the interconnection of the Distributed Energy Resource requires Network Upgrades.

#### 5.2. Network Upgrades

The Area EPS Operator or the Transmission Owner shall design, procure, construct, install, and own the Network Upgrades described in Attachment 6 of this Agreement. The Area EPS Operator shall provide a good faith estimate cost, including overheads, for the purchase and construction of the Network Upgrades and provide a detailed itemization of such costs. If the Area EPS Operator and the Interconnection Customer agree, the Interconnection Customer may construct Network Upgrades that are located on land owned by the Interconnection Customer. Unless the Area EPS Operator elects to pay for Network Upgrades, the actual cost of the Network Upgrades, including overheads, shall be borne initially by the Interconnection Customer.

##### 5.2.1. Repayment of Amounts Advanced for Network Upgrades

The Interconnection Customer shall be entitled to a cash repayment, equal to the total amount paid to the Area EPS Operator and Affected System operator, if any, for Network Upgrades, including any tax gross-up or other tax-related payments associated with the Network Upgrades, and not otherwise refunded to the Interconnection Customer, to be paid to the Interconnection Customer on a dollar-for-dollar basis for the non-usage sensitive portion of transmission charges, as payments are made under the Area EPS Operator's Tariff and Affected System's Tariff for transmission services with respect to the Distributed Energy Resource. Any repayment shall include interest calculated in accordance with the methodology set forth in FERC's regulations at 18 C.F.R. § 35.19a(a)(2)(iii) from the date of any payment for Network Upgrades through the date on which the Interconnection

Customer receives a repayment of such payment pursuant to this subparagraph. The Interconnection Customer may assign such repayment rights to any person.

- 5.2.1.1. Notwithstanding the foregoing, the Interconnection Customer, the Area EPS Operator, and any applicable Affected System operators may adopt any alternative payment schedule that is mutually agreeable so long as the Area EPS Operator and said Affected System operators take one of the following actions no later than five years from the Commercial Operation Date: (1) return to the Interconnection Customer any amounts advanced for Network Upgrades not previously repaid, or (2) declare in writing that the Area EPS Operator or any applicable Affected System operators will continue to provide payments to the Interconnection Customer on a dollar-for-dollar basis for the non-usage sensitive portion of transmission charges, or develop an alternative schedule that is mutually agreeable and provides for the return of all amounts advanced for Network Upgrades not previously repaid; however, full reimbursement shall not extend beyond 20 years from the commercial operation date.
- 5.2.1.2. If the Distributed Energy Resource fails to achieve commercial operation, but it or another Distributed Energy Resource is later constructed and requires use of the Network Upgrades within five (5) years of being constructed, the Area EPS Operator and Affected System operator (after receiving payment in the amount of the cost to build these Network Upgrades from the other Distributed Energy Resource who is expected to use the Network Upgrades) shall at that time reimburse the Interconnection Customer for the amounts advanced for the Network Upgrades. Before any such reimbursement can occur, the Interconnection Customer, or the entity that ultimately constructs the Distributed Energy Resource, if different, is responsible for identifying the entity to which reimbursement must be made.

### 5.3. Special Provisions for Affected Systems

Unless the Area EPS Operator provides, under this Agreement, for the repayment of amounts advanced to any applicable Affected System operators for Network Upgrades, the Interconnection Customer and Affected System operator shall enter into an agreement that provides for such repayment. The agreement shall specify the terms governing payments to be made by the Interconnection Customer to Affected System operator as well as the repayment by Affected System operator.

### 5.4. Rights Under Other Agreements

Notwithstanding any other provision of this Agreement, nothing herein shall be construed as relinquishing or foreclosing any rights, including but not limited to firm

transmission rights, capacity rights, transmission congestion rights, or transmission credits, that the Interconnection Customer shall be entitled to, now or in the future, under any other agreement or tariff as a result of, or otherwise associated with, the transmission capacity, if any, created by the Network Upgrades, including the right to obtain cash reimbursements or transmission credits for transmission service that is not associated with the Distributed Energy Resource.

## 6. Article 6. Billing, Payment, Milestones, and Financial Security

### 6.1. Billing and Payment Procedures and Final Accounting

- 6.1.1. The Area EPS Operator shall bill the Interconnection Customer for the design, engineering, construction, and procurement costs of Interconnection Facilities and Upgrades contemplated by this Agreement, and the Interconnection Customer shall pay each bill, pursuant to the MN DIP 5.6.5, or as otherwise agreed to by the Parties.
- 6.1.2. Within 80 Business Days (approximately 4 calendar months) of completing the construction and installation of the Area EPS Operator's Interconnection Facilities and/or Upgrades described in the Attachments to this Agreement, the Area EPS Operator shall provide the Interconnection Customer with a final accounting report, as described in the MN DIP 5.6.6.

### 6.2. Milestones

Pursuant to the MN DIP 4.4.5, 5.6.2 and 5.6.3, the Parties shall agree on milestones for which each Party is responsible and list them in Attachment 4 of this Agreement.

### 6.3. Financial Security Arrangements

Pursuant to the MN DIP 5.6.4, the Interconnection Customer shall provide the Area EPS Operator, at the Interconnection Customer's option, a guarantee, letter of credit or other form of security that is reasonably acceptable to the Area EPS Operator and is consistent with the Minnesota Uniform Commercial Code. Such security for payment shall be in an amount sufficient to cover the costs for constructing, designing, procuring, and installing the applicable portion of the Area EPS Operator's Interconnection Facilities and Upgrades and shall be reduced on a dollar-for-dollar basis for payments made to the Area EPS Operator under this Agreement during its term. In addition:

- 6.3.1. The guarantee must be made by an entity that meets the creditworthiness requirements of the Area EPS Operator, and contain terms and conditions that guarantee payment of any amount that may be due from the Interconnection Customer, up to an agreed-to maximum amount.

- 6.3.2. The letter of credit must be issued by a financial institution or insurer reasonably acceptable to the Area EPS Operator and must specify a reasonable expiration date not sooner than sixty (60) Business Days (three calendar months) after the due date for the issuance of the final bill.

## 7. Article 7. Assignment, Liability, Non-Warranty, Indemnity, Force Majeure, Consequential Damages, and Default

### 7.1. Assignment

This Agreement may be assigned by either Party upon 15 Business Days prior written notice and opportunity to object by the other Party; provided that:

- 7.1.1. Either Party may assign this Agreement without the consent of the other Party to any affiliate of the assigning Party with an equal or greater credit rating and with the legal authority and operational ability to satisfy the obligations of the assigning Party under this Agreement, provided that the Interconnection Customer promptly notifies the Area EPS Operator of any such assignment.
- 7.1.2. The Interconnection Customer shall have the right to assign this Agreement, without the consent of the Area EPS Operator, for collateral security purposes to aid in providing financing for the Distributed Energy Resource, provided that the Interconnection Customer will promptly notify the Area EPS Operator of any such assignment.
- 7.1.3. Any attempted assignment that violates this article is void and ineffective. Assignment shall not relieve a Party of its obligations, nor shall a Party's obligations be enlarged, in whole or in part, by reason thereof. An assignee is responsible for meeting the same financial, credit, and insurance obligations as the Interconnection Customer. Where required, consent to assignment will not be unreasonably withheld, conditioned or delayed.

### 7.2. Limitation of Liability

Each Party's liability to the other Party for any loss, cost, claim, injury, liability, or expense, including reasonable attorney's fees, relating to or arising from any act or omission in its performance of this Agreement, 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 indirect, special, consequential, or punitive damages, except as authorized by this Agreement.

### 7.3. Non-Warranty



The Area EPS Operator does not give any warranty, expressed or implied, as to the adequacy, safety, or other characteristics of any structures, equipment, wires, appliances or devices owned, installed or maintained by the Interconnection Customer, including without limitation the Distributed Energy Resource and any structures, equipment, wires, appliances or devices not owned, operated or maintained by the Area EPS Operator.

#### 7.4. Indemnity

- 7.4.1. This provision protects each Party from liability incurred to third parties as a result of carrying out the provisions of this Agreement. Liability under this provision is exempt from the general limitations on liability found in article 7.2.
- 7.4.2. The Parties shall at all times indemnify, defend, and hold the other Party harmless from, any and all damages, losses, claims, including claims and actions relating to injury to or death of any person or damage to property, demand, suits, recoveries, costs and expenses, court costs, attorney fees, and all other obligations by or to third parties, arising out of or resulting from the other Party's action or failure to meet its obligations under this Agreement on behalf of the indemnifying Party, except in cases of gross negligence or intentional wrongdoing by the indemnified Party.
- 7.4.3. This ~~is~~ indemnification obligation shall apply notwithstanding any negligent or intentional acts, errors or omissions of the Indemnified Party, but the Indemnifying Party's liability to indemnify the Indemnified Party shall be reduced in proportion to the percentage by which the Indemnified Party's negligent or intentional acts, errors or omissions caused the damage.
- 7.4.4. Neither Party shall be indemnified for its damages resulting from its sole negligence, intentional acts or willful misconduct. These indemnity provisions shall not be construed to relieve any insurer of its obligation to pay claims consistent with the provisions of a valid insurance policy.
- 7.4.5. If an indemnified person is entitled to indemnification under this article as a result of a claim by a third party, and the indemnifying Party fails, after notice and reasonable opportunity to proceed under this article, to assume the defense of such claim, such indemnified person may at the expense of the indemnifying Party contest, settle or consent to the entry of any judgment with respect to, or pay in full, such claim.
- 7.4.6. If an indemnifying party is obligated to indemnify and hold any indemnified person harmless under this article, the amount owing to the indemnified person shall be the amount of such indemnified person's actual loss, net of any insurance or other recovery.

7.4.7. Promptly after receipt by an indemnified person of any claim or notice of the commencement of any action or administrative or legal proceeding or investigation as to which the indemnity provided for in this article may apply, the indemnified person shall notify the indemnifying party of such fact. Any failure of or delay in such notification shall not affect a Party's indemnification obligation unless such failure or delay is materially prejudicial to the indemnifying party.

#### 7.5. Consequential Damages

Other than as expressly provided for in this Agreement, neither Party shall be liable under any provision of this Agreement for any losses, damages, costs or expenses for any special, indirect, incidental, consequential, or punitive damages, including but not limited to loss of profit or revenue, loss of the use of equipment, cost of capital, cost of temporary equipment or services, whether based in whole or in part in contract, in tort, including negligence, strict liability, or any other theory of liability; provided, however, that damages for which a Party may be liable to the other Party under another agreement will not be considered to be special, indirect, incidental, or consequential damages hereunder.

#### 7.6. Force Majeure

If a Force Majeure Event prevents a Party from fulfilling any obligations under this Agreement, the Party affected by the Force Majeure Event (Affected Party) shall promptly notify the other Party, either in writing or via the telephone, of the existence of the Force Majeure Event. The notification must specify in reasonable detail the circumstances of the Force Majeure Event, its expected duration, and the steps that the Affected Party is taking to mitigate the effects of the event on its performance. The Affected Party shall keep the other Party informed on a continuing basis of developments relating to the Force Majeure Event until the event ends. The Affected Party will be entitled to suspend or modify its performance of obligations under this Agreement (other than the obligation to make payments) only to the extent that the effect of the Force Majeure Event cannot be mitigated by the use of Reasonable Efforts. The Affected Party will use Reasonable Efforts to resume its performance as soon as possible.

#### 7.7. Default

7.7.1. No Default shall exist where such failure to discharge an obligation (other than the payment of money) is the result of a Force Majeure Event as defined in this Agreement or the result of an act or omission of the other Party. Upon a Default, the non-defaulting Party shall give written notice of such Default to the defaulting Party. Except as provided in article 7.6.2, the defaulting Party shall have 60

calendar days from receipt of the Default notice within which to cure such Default; provided however, if such Default is not capable of cure within 60 calendar days, the defaulting Party shall commence such cure within 20 calendar days after notice and continuously and diligently complete such cure within six months from receipt of the Default notice; and, if cured within such time, the Default specified in such notice shall cease to exist.

- 7.7.2. If a Default is not cured as provided in this article, or if a Default is not capable of being cured within the period provided for herein, the non-defaulting Party shall have the right to terminate this Agreement by written notice at any time until cure occurs, and be relieved of any further obligation hereunder and, whether or not that Party terminates this Agreement, to recover from the defaulting Party all amounts due hereunder, plus all other damages and remedies to which it is entitled at law or in equity. The provisions of this article will survive termination of this Agreement.

## 8. Article 8. Insurance

- 8.1. An Area EPS Operator may only require an Interconnection Customer to purchase insurance covering damages pursuant to the MN DIP 5.10.
- 8.2. The Area EPS Operator agrees to maintain general liability insurance or self-insurance consistent with the Area EPS Operator's commercial practice. Such insurance or self-insurance shall not exclude coverage for the Area EPS Operator's liabilities undertaken pursuant to this Agreement.
- 8.3. The Parties further agree to notify each other whenever an accident or incident occurs resulting in any injuries or damages that are included within the scope of coverage of such insurance, whether or not such coverage is sought.
- 8.4. Failure of the Interconnection Customer or Area EPS Operator to enforce the minimum levels of insurance does not relieve the Interconnection Customer from maintaining such levels of insurance or relieve the Interconnection Customer of any liability.

## 9. Article 9. Confidentiality

- 9.1. Confidential Information shall mean any confidential and/or proprietary information provided by one Party to the other Party that is clearly marked or otherwise designated "Confidential." For purposes of this Agreement, design, operating specifications, and

metering data provided by the Interconnection Customer may be deemed Confidential Information regardless of whether it is clearly marked or otherwise designated as such. If requested by either Party, the other Party shall provide in writing the basis for asserting that the information warrants confidential treatment. Parties providing a Governmental Authority trade secret, privileged or otherwise not public or nonpublic data under the Minnesota Government Data Practices Act, Minnesota Statutes Chapter 13, shall identify such data consistent with the Commission's September 1, 1999 Revised Procedures for Handling Trade Secret and Privileged Data, available online at: <https://mn.gov/puc/puc-documents/#4>

9.2. Confidential Information does not include information previously in the public domain with proper authorization, required to be publicly submitted or divulged by Governmental Authorities (after notice to the other Party and after exhausting any opportunity to oppose such publication or release), or necessary to be publicly divulged in an action to enforce this Agreement. Each Party receiving Confidential Information shall hold such information in confidence and shall not disclose it to any third party nor to the public without the prior written authorization from the Party providing that information, except to fulfill obligations under this Agreement, or to fulfill legal or regulatory requirements that could not otherwise be fulfilled by not making the information public.

9.2.1. Each Party shall hold in confidence and shall not disclose Confidential Information, to any person (except employees, officers, representatives and agents, who agree to be bound by this section). Confidential Information shall be clearly marked as such on each page or otherwise affirmatively identified. If a court, government agency or entity with the right, power, and authority to do so, requests or requires either Party, by subpoena, oral disposition, interrogatories, requests for production of documents, administrative order, or otherwise, to disclose Confidential Information, that Party shall provide the other Party with prompt notice of such request(s) or requirements(s) so that the other Party may seek an appropriate protective order or waive compliance with the terms of this Agreement. In the absence of a protective order or waiver the Party shall disclose such confidential information which, in the opinion of its counsel, the party is legally compelled to disclose. Each Party will use reasonable efforts to obtain reliable assurance that confidential treatment will be accorded any confidential information so furnished.

9.2.2. Critical infrastructure information or information that is deemed or otherwise designated by a Party as Critical Energy/Electric Infrastructure Information (CEII) pursuant to FERC regulation, [18 C.F.R. §388.133](#), as may be amended from time to time, may be subject to further protections for disclosure as required by FERC or FERC regulations or orders and the disclosing Party's CEII policies.

- 9.2.3. Each Party shall employ at least the same standard of care to protect Confidential Information obtained from the other Party as it employs to protect its own Confidential Information.
- 9.2.4. Each Party is entitled to equitable relief, by injunction or otherwise, to enforce its rights under this provision to prevent the release of Confidential Information without bond or proof of damages, and may seek other remedies available at law or in equity for breach of this provision.

## 10. Article 10. Disputes

- 10.1. The Parties agree to attempt to resolve all disputes arising out of the interconnection process and associated study and interconnection agreements according to the provisions of this article and Minnesota Administrative Rules 7829.1500-7829.1900. More information on the Commission's Consumer Affairs Office dispute resolution services is available on the Commission's website:  
<https://mn.gov/puc/consumers/help/complaint/>
- 10.2. Prior to a written Notice of Dispute, the Party shall contact the other Party and raise the issue and the relief sought in an attempt to resolve the issue immediately.
- 10.3. In the event of a dispute, the disputing Party shall provide the other Party a written Notice of Dispute containing the relevant known facts pertaining to the dispute, the specific dispute and the relief sought, and express notice by the disputing Party that it is invoking the procedures under this article. The Interconnection Customer may utilize the Commission's Consumer Affairs Office's complaint/inquiry form and Informal Complaint dispute resolution process to assist with the written Notice of Dispute. The notice shall be sent to the non-disputing Party's email address and physical address set forth in the interconnection agreement or Interconnection Application, if there is no interconnection agreement. If the Interconnection Customer chooses not to utilize the Commission's Consumer Affairs Office dispute resolution process, the Interconnection Customer shall provide an informational electronic copy of the Notice of Dispute to the Consumer Affairs Office at the Commission at [consumer.puc@state.mn.us](mailto:consumer.puc@state.mn.us).
- 10.4. The non-disputing Party shall acknowledge the notice within three (3) Business Days of its receipt and identify a representative with the authority to make decisions for the non-disputing Party with respect to the dispute.
- 10.5. The non-disputing Party shall provide the disputing Party with relevant regulatory and/or technical details and analysis regarding the Area EPS Operator interconnection requirements under dispute within ten (10) Business Days of the date of the Notice of Dispute. Within twenty (20) Business Days of the date of the Notice of Dispute, the

Parties' authorized representatives will be required to meet and confer to try to resolve the dispute. Parties shall operate in good faith and use best efforts to resolve the dispute.

- 10.6. If a resolution is not reached in the thirty (30) Business Days from the date of the notice described in section 10.3, the Parties may 1) if mutually agreed, continue negotiations for up to an additional twenty (20) Business Days; or 2) either Party may request the Commission's Consumer Affairs Office provide mediation in an attempt to resolve the dispute within twenty (20) Business Days with the opportunity to extend this timeline upon mutual agreement. Alternatively, both Parties by mutual agreement may request mediation from an outside third-party mediator with costs to be shared equally between the Parties.
- 10.7. If the results of the mediation are not accepted by one or more Parties and there is still disagreement, the dispute shall proceed to the Commission's Formal Complaint process as described in Minn. Rules 7829.1700-1900 unless mutually agreed to continue with informal dispute resolution.
- 10.8. At any time, either Party may file a complaint before the Commission pursuant to Minn. Stat. §216B.164, if applicable, and Commission rules outlined in Minn. Rules Ch. 7829.

## 11. Article 11. Taxes

- 11.1. The Parties agree to follow all applicable tax laws and regulations, consistent with Internal Revenue Service and any other relevant local, state and federal requirements.
- 11.2. Each Party shall cooperate with the other to maintain the other Party's tax status. It is incumbent on the Party seeking to maintain its tax status to provide formal written notice to the other Party detailing what exact cooperation it is seeking from the other Party well prior to any deadline by which any such action would need to be taken. Nothing in this Agreement is intended to adversely affect, if applicable, the Area EPS Operator's tax exempt status with respect to the issuance of bonds including, but not limited to, local furnishing bonds.

## 12. Article 12. Miscellaneous

- 12.1. Governing Law, Regulatory Authority, and Rules  
The validity, interpretation and enforcement of this Agreement and each of its provisions shall be governed by the Minnesota Public Utilities Commission and the

laws of the state of Minnesota, without regard to its conflicts of law principles. This Agreement is subject to all Applicable Laws and Regulations. Each Party expressly reserves the right to seek changes in, appeal, or otherwise contest any laws, orders, or regulations of a Governmental Authority.

12.2. Amendment

The Parties may amend this Agreement by a written instrument duly executed by both Parties under the process described below, or under article 12.12 of this Agreement.

If the Parties seek to amend this Agreement by a written instrument duly executed by both Parties, this amendment will need to receive Commission approval prior to it being effective. The Area EPS Operator and Interconnection Customer may seek Commission approval of an amendment to the Interconnection Agreement for use between them for a specific Interconnection Application in the following ways:

- 12.2.1. File a Petition with the Commission, or
- 12.2.2. File a Notice with the Commission of the proposed amendment. The Notice should include a copy of the amendment showing in redline format how the amendment would alter the MN DIA between the Area EPS Operator and Interconnection Customer for the Interconnection Application at issue. If no objection or notice of intent to object is filed within 30 days, then the proposed amendment would be considered to be approved by the Commission. If there is a timely filed objection of notice of intent to object, then the proposed amendment would not be considered to have been approved by the Commission and could only be used if the Commission subsequently issues a written order authorizing its use.
- 12.2.3. Commission approval of an amendment to the Interconnection Agreement is not needed where such an amendment only addresses updating or correcting: 1) information specified in the Interconnection Application; 2) exhibits or attachments to the Interconnection Agreement as long as they are not additional agreements or requirements not covered in the MN DIP or Minnesota Technical Requirements; or 3) information provided in the blank lines to the MN DIA or Uniform Statewide Contract forms.

12.3. No Third-Party Beneficiaries

This Agreement is not intended to and does not create rights, remedies, or benefits of any character whatsoever in favor of any persons, corporations, associations, or entities other than the Parties, and the obligations herein assumed are solely for the use and benefit of the Parties, their successors in interest and where permitted, their assigns.

12.4. Waiver

12.4.1. The failure of a Party to this Agreement to insist, on any occasion, upon strict performance of any provision of this Agreement will not be considered a waiver of any obligation, right, or duty of, or imposed upon, such Party.

12.4.2. Any waiver at any time by either Party of its rights with respect to this Agreement shall not be deemed a continuing waiver or a waiver with respect to any other failure to comply with any other obligation, right, duty of this Agreement. Termination or default of this Agreement for any reason by Interconnection Customer shall not constitute a waiver of the Interconnection Customer's legal rights to obtain an interconnection from the Area EPS Operator. Any waiver of this Agreement shall, if requested, be provided in writing.

12.5. Entire Agreement

This Agreement, including all Attachments, constitutes the entire agreement between the Parties with reference to the subject matter hereof, and supersedes all prior and contemporaneous understandings or agreements, oral or written, between the Parties with respect to the subject matter of this Agreement. There are no other agreements, representations, warranties, or covenants which constitute any part of the consideration for, or any condition to, either Party's compliance with its obligations under this Agreement. This Agreement can only be amended or modified in writing signed by both Parties.

12.6. Multiple Counterparts

This Agreement may be executed in two or more counterparts, each of which is deemed an original but all constitute one and the same instrument. Electronic signatures are acceptable if the Area EPS Operator has made such a determination pursuant to MN DIP 1.2.1.1.

12.7. No Partnership

This Agreement shall not be interpreted or construed to create an association, joint venture, agency relationship, or partnership between the Parties or to impose any partnership obligation or partnership liability upon either Party. Neither Party shall have any right, power or authority to enter into any agreement or undertaking for, or act on behalf of, or to act as or be an agent or representative of, or to otherwise bind, the other Party.

12.8. Severability



If any provision or portion of this Agreement shall for any reason be held or adjudged to be invalid or illegal or unenforceable by any court of competent jurisdiction or other Governmental Authority, (1) such portion or provision shall be deemed separate and independent, (2) the Parties shall negotiate in good faith to restore insofar as practicable the benefits to each Party that were affected by such ruling, and (3) the remainder of this Agreement shall remain in full force and effect.

12.9. Security Arrangements

Infrastructure security of electric system equipment and operations and control hardware and software is essential to ensure day-to-day reliability and operational security. All public utilities are expected to meet basic standards for system infrastructure and operational security, including physical, operational, and cyber-security practices.

12.10. Environmental Releases

Each Party shall notify the other Party, first orally and then in writing, of the release of any hazardous substances, any asbestos or lead abatement activities, or any type of remediation activities related to the Distributed Energy Resource or the Interconnection Facilities, each of which may reasonably be expected to affect the other Party. The notifying Party shall (1) provide the notice as soon as practicable, provided such Party makes a good faith effort to provide the notice no later than 24 hours after such Party becomes aware of the occurrence, and (2) promptly furnish to the other Party copies of any publicly available reports filed with any governmental authorities addressing such events.

12.11. Subcontractors

Nothing in this Agreement shall prevent a Party from utilizing the services of any subcontractor as it deems appropriate to perform its obligations under this Agreement; provided, however, that each Party shall require its subcontractors to comply with all applicable terms and conditions of this Agreement in providing such services and each Party shall remain primarily liable to the other Party for the performance of such subcontractor.

12.11.1. The creation of any subcontract relationship shall not relieve the hiring Party of any of its obligations under this Agreement. The hiring Party shall be fully responsible to the other Party for the acts or omissions of any subcontractor the hiring Party hires as if no subcontract had been made; provided, however, that in no event shall the Area EPS Operator be liable for the actions or inactions of the Interconnection Customer or its subcontractors with respect to obligations of the Interconnection Customer

under this Agreement. Any applicable obligation imposed by this Agreement upon the hiring Party shall be equally binding upon, and shall be construed as having application to, any subcontractor of such Party.

12.11.2. The obligations under this article will not be limited in any way by any limitation of subcontractor's insurance.

12.12. Inclusion of Area EPS Operator Tariffs and Rules

The interconnection services provided under this Agreement shall at all times be subject to the terms and conditions set forth in the tariff schedules and rules applicable to the electric service provided by the Area EPS Operator, which tariff schedules and rules are hereby incorporated into this Agreement by this reference. Notwithstanding any other provisions of this Agreement, the Area EPS Operator shall have the right to unilaterally file with the Minnesota Public Utilities Commission pursuant to the Commission's rules and regulations, an application for change in rates, charges, classification, service, tariff, or rule or any agreement relating thereto. The Interconnection Customer shall also have the right to unilaterally file with the Commission, pursuant to the Commission's rules and regulations, an application for change in rates, charges, classification, service, tariff, or rule or any agreement relating thereto. Each Party shall have the right to protest any such filing by the other Party and/or to participate fully in any proceeding before the Commission in which such modifications may be considered, pursuant to the Commission's rules and regulations.

## 13. Article 13. Notices

13.1. General

Unless otherwise provided in this Agreement, any written notice, demand, or request required or authorized in connection with this Agreement ("Notice") shall be deemed properly given if delivered in person, delivered by recognized national courier service, or sent by first class mail, postage prepaid, to the person specified below:

If to the Interconnection Customer:

Interconnection Customer:

\_\_\_\_\_

Attention: \_\_\_\_\_

Address:

\_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_

Zip: \_\_\_\_\_

Phone: \_\_\_\_\_ Email: \_\_\_\_\_

If to the Area EPS Operator:

Area EPS Operator: Northern States Power Company, a Minnesota Corporation

Attention: \_\_\_\_\_

Address:

\_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_

Zip: \_\_\_\_\_

Phone: \_\_\_\_\_ Email: \_\_\_\_\_

13.2. Billing and Payment

Billings and payments shall be sent to the addresses set out below:

Interconnection Customer:

\_\_\_\_\_

Attention: \_\_\_\_\_

Address:

\_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_

Zip: \_\_\_\_\_

Area EPS Operator: Northern States Power Company, a Minnesota Corporation

\_\_\_\_\_

Attention: \_\_\_\_\_

Address:

\_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_  
Zip: \_\_\_\_\_

13.3. Alternative Forms of Notice

Any notice or request required or permitted to be given by either Party to the other and not required by this Agreement to be given in writing may be so given by telephone or e-mail to the telephone numbers and e-mail addresses set out below:

If to the Interconnection Customer:

Interconnection Customer:

\_\_\_\_\_

Attention: \_\_\_\_\_

Address:

\_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_

Zip: \_\_\_\_\_

Phone: \_\_\_\_\_ Email: \_\_\_\_\_

If to the Area EPS Operator:

Area EPS Operator: Northern States Power Company, a Minnesota Corporation

\_\_\_\_\_

Attention: \_\_\_\_\_

Address:

\_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_

Zip: \_\_\_\_\_

Phone: \_\_\_\_\_ Email: \_\_\_\_\_

13.4. Designated Operating Representative

The Parties may also designate operating representatives to conduct the communications which may be necessary or convenient for the administration of this Agreement. This person will also serve as the point of contact with respect to operations and maintenance of the Party's facilities.

Interconnection Customer's Operating Representative:

Interconnection Customer:

\_\_\_\_\_

Attention: \_\_\_\_\_

Address:

\_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_

Zip: \_\_\_\_\_

Phone: \_\_\_\_\_ Email: \_\_\_\_\_

Area EPS Operator's Operating Representative:

Area EPS Operator: Northern States Power Company, a Minnesota Corporation

\_\_\_\_\_

Attention: \_\_\_\_\_

Address:

\_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_

Zip: \_\_\_\_\_

Phone: \_\_\_\_\_ Email: \_\_\_\_\_

### 13.5. Changes to the Notice Information

Either Party may change this information by giving five Business Days written notice to the other Party prior to the effective date of the change.

#### 14. Article 14. Signatures

IN WITNESS WHEREOF, the Parties have caused this Agreement to be executed by their respective duly authorized representatives.

For Northern States Power Company, a Minnesota corporation (the Area EPS Operator)–

Signature: \_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

For the Interconnection Customer

Signature: \_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

## Attachment 1: Glossary of Terms

**Affected System** – Another Area EPS Operator’s system, or Transmission Owner’s Transmission System, or Transmission System connected generation which may be affected by the proposed interconnection.

**Applicant Agent** – A person designated in writing by the Interconnection Customer to represent or provide information to the Area EPS on the Interconnection Customer’s behalf throughout the interconnection process.

**Area EPS** - The electric power distribution system connected at the Point of Common Coupling.

**Area EPS Operator** – An entity that owns, controls, or operates the electric power distribution systems that are used for the provision of electric service in Minnesota.

**Business Day** – Monday through Friday, excluding Holidays as defined by [Minn. Stat. §645.44, Subd. 5](#). See MN DIP 5.2.1 for more on computation of time.

**Certified Equipment** - UL 1741 listing is a common form of DER inverter certification. See MN DIP Attachment 4: Certification Codes and Standards and Attachment 5: Certification of Distributed Energy Resource Equipment.

**Confidential Information** – See MN DIA Article 9.

**Distributed Energy Resource (DER)** – A source of electric power that is not directly connected to a bulk power system. DER includes both generators and energy storage technologies capable of exporting active power to an EPS. An interconnection system or a supplemental DER device that is necessary for compliance with this standard is part of a DER. For the purpose of the MN DIP and MN DIA, the DER includes the Customer’s Interconnection Facilities but shall not include the Area EPS Operator’s Interconnection Facilities.

**Distribution System** – The Area EPS facilities which are not part of the Local EPS, Transmission System or any generation system.

**Distribution Upgrades** – The additions, modifications, and upgrades to the Distribution System at or beyond the Point of Common Coupling to facilitate interconnection of the DER and render the distribution service necessary to effect the Interconnection Customer’s connection to the Distribution System. Distribution Upgrades do not include Interconnection Facilities.

**Effective Date** – Agreement(s) shall become effective upon execution by the Parties.

**Electric Power System (EPS)** – The facilities that deliver electric power to a load.

**Emergency Conditions** — a condition or situation: (1) that in the judgment of the Party making the claim is imminently likely to endanger life or property; or (2) that, in the case of the Area EPS Operator, is imminently likely (as determined in a non-discriminatory manner) to cause a material adverse effect on the security of, or damage to the Distribution System, the Area EPS Operator’s Interconnection Facilities or the Distribution Systems of others to which the Distribution System is directly connected; or (3) that, in the case of the Interconnection Customer, is imminently likely (as determined in a non-discriminatory manner) to cause a material adverse effect on the security of, or damage to, the Distributed Energy Resource or the Interconnection Customer’s Interconnection Facilities.

**Fast Track Process** – The procedure as described in MN DIP Section 3 for evaluating an Interconnection Application for a Distributed Energy Resource that meets the eligibility requirements of MN DIP section 3.1.

**Force Majeure Event** – An act of God, labor disturbance, act of the public enemy, war, insurrection, riot, fire, storm or flood, explosion, breakage or accident to machinery or equipment, an order, regulation or restriction imposed by governmental, military or lawfully established civilian authorities, or an other cause beyond a Party’s control. A Force Majeure Event does not include an act of negligence or intentional wrongdoing.

**Good Utility Practice** – Any of the practices, methods and acts engaged in or approved by a significant portion of the electric industry during the relevant time period, or any of the practices, methods and act which, in the exercise of reasonable judgment in light of the facts known at the time the decision was made, could have been expected to accomplish the desired result at a reasonable cost consistent with good business practices, reliability, safety and expedition. Good Utility Practice is not intended to be limited to the optimum practice, method, or act to the exclusion of all others, but rather to be acceptable practices, methods, or acts generally accepted in the region.

**Governmental Authority** – Any federal, state, local or other governmental regulatory or administrative agency, court, commission, department, board, or other governmental subdivision, legislature, rulemaking board, tribunal, or other governmental authority having jurisdiction over the Parties, their respective facilities, or the respective services they provide, and exercising or entitled to exercise any administrative, executive, police, or taxing authority or power; provided, however, that such term does not include the Interconnection Customer, the Area EPS Operator, or any Affiliate thereof. The Minnesota Public Utilities Commission is the authority governing interconnection requirements unless otherwise provided for in the Minnesota Technical Requirements.



**Interconnection Agreement** – The terms and conditions between the Area EPS Operator and Interconnection Customer (Parties). See MN DIP Section 1.1.5 for when the Uniform Statewide Contract or MN DIA applies.

**Interconnection Application** – The Interconnection Customer’s request to interconnect a new or modified, as described in MN DIP Section 1.6, Distributed Energy Resource. See MN DIP Attachment 2 Simplified Application Form and MN DIP Attachment 3 Interconnection Application Form.

**Interconnection Customer** – The person or entity, including the Area EPS Operator, whom will be the owner of the DER that proposes to interconnect a DER(s) with the Area EPS Operator’s Distribution System. The Interconnection Customer is responsible for ensuring the Distributed Energy Resource(s) is designed, operated and maintained in compliance with the Minnesota Technical Requirements.

**Interconnection Facilities** – The Area EPS Operator’s Interconnection Facilities and the Interconnection Customer’s Interconnection Facilities. Collectively, Interconnection Facilities include all facilities and equipment between the Distributed Energy Resource and Customer Interconnection System and the Point of Common Coupling, including any modification, additions or upgrades that are necessary to physically and electrically interconnect the Distributed Energy Resource to the Area EPS Operator’s System. Some examples of Customer Interconnection Facilities include: supplemental DER devices, inverters, and associated wiring and cables up to the Point of DER Connection. Some examples of Area EPS Operator Interconnection Facilities include sole use facilities; such as, line extensions, controls, relays, switches, breakers, transformers and shall not include Distribution Upgrades or Network Upgrades.

**Material Modification** – A modification to machine data, equipment configuration or to the interconnection site of the DER at any time after receiving notification by the Area EPS Operator of a complete Interconnection Application that has a material impact on the cost, timing, or design of any Interconnection Facilities or Upgrades, or a material impact on the cost, timing or design of any Interconnection Application with a later Queue Position or the safety or reliability of the Area EPS.<sup>1</sup>

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<sup>1</sup> A Material Modification shall include, but may not be limited to, a modification from the approved Interconnection Application that: (1) changes the physical location of the point of common coupling; such that it is likely to have an impact on technical review; (2) increases the nameplate rating or output characteristics of the Distributed Energy Resource; (3) changes or replaces generating equipment, such as generator(s), inverter(s), transformers, relaying, controls, etc., and substitutes equipment that is not like-kind substitution in certification, size, ratings, impedances, efficiencies or capabilities of the equipment; (4) changes transformer connection(s) or grounding; and/or (5) changes to a certified inverter with different specifications or different inverter control settings or configuration. A Material Modification shall not include a modification from the approved Interconnection Application that: (1) changes the ownership of a Distributed Energy Resource; (2) changes the address of the

**MN DIA** - The Minnesota Distributed Energy Resource Interconnection Agreement. See MN DIP Section 1.1.5 for when the Uniform Statewide Contract or MN DIA applies.

**MN DIP** – The Minnesota Distributed Energy Resource Interconnection Process. ~~T-outline~~ the statewide interconnection standards.

**MN Technical Requirements** ~~or Minnesota Technical Requirements~~ – The term including all of the DER technical interconnection requirement documents for the state of Minnesota; including: 1) Attachment 2 Distributed Generation Interconnection Requirements established in the Commission’s September 28, 2004 Order in E-999/CI-01-1023) until superseded and upon Commission approval of updated Minnesota DER Technical Interconnection and Interoperability Requirements in E-999/CI-16-521 (anticipated February 2019.)

**Nameplate Rating:** nominal voltage (V), current (A), maximum active power (kWac), apparent power (kVA), and reactive power (kvar) at which a DER is capable of sustained operation. For a Local EPS with multiple DER units, the aggregate nameplate rating is equal to the sum of all DERs nameplate rating in the Local EPS, not including aggregate capacity limiting mechanisms such as coincidence factors, plant controller limits, etc. that may be applicable for specific cases. (Aggregate Nameplate Rating). The nameplate ratings referenced in the MN DIP are alternating current nameplate DER ratings See MN DIP Section 5.14 on Capacity of the Distributed Energy Resource.

**Network Upgrades** – Additions, modifications, and upgrades to the Transmission System required at or beyond the point at which the DER interconnects with the Area EPS Operator’s System to accommodate the interconnection with the DER to the Area EPS Operator’s System. Network Upgrades do not include Distribution Upgrades.

**Notice of Dispute** – The disputing Party shall provide the other Party this written notice containing the relevant known facts pertaining to the dispute, the specific dispute and the relief sought, and express notice by the disputing Party that it is invoking the procedures under MN DIP 5.3.

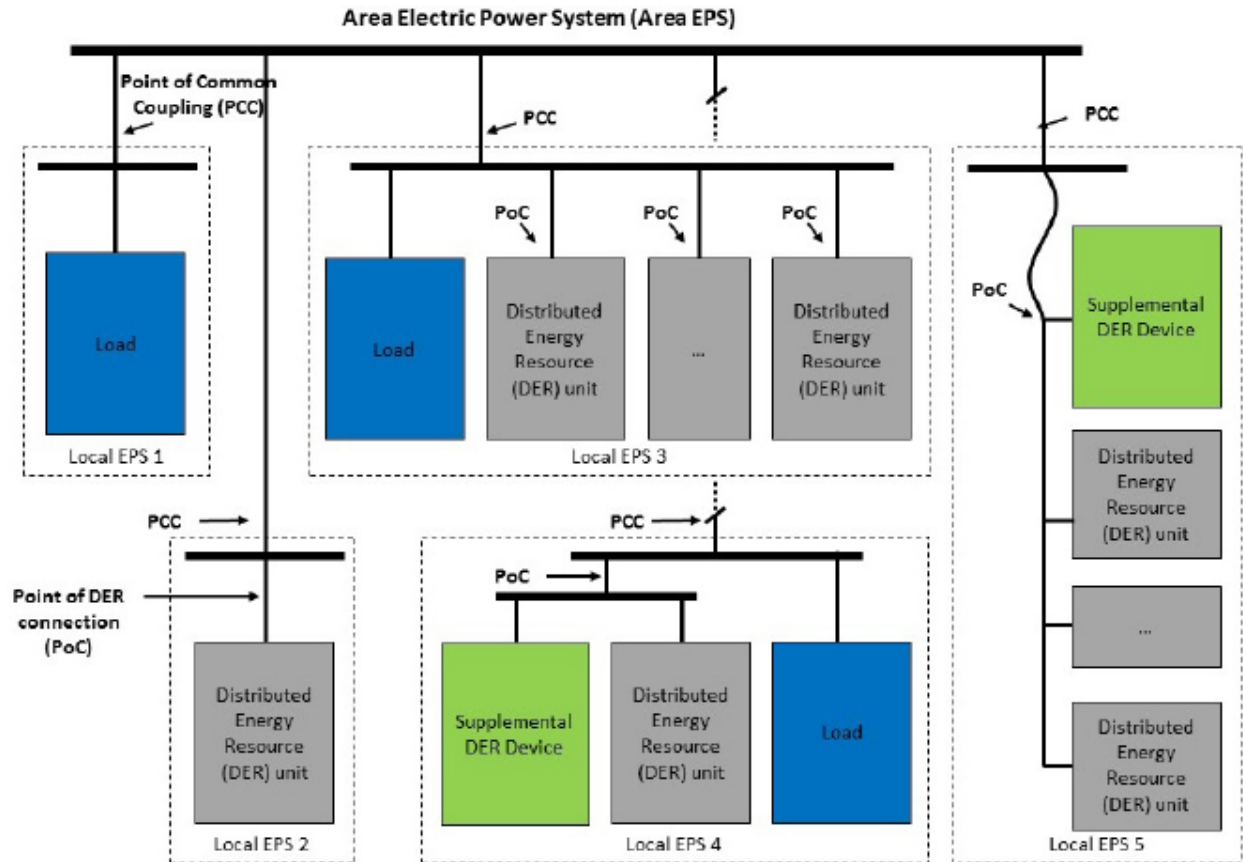
**Operating Requirements** – Any operating and technical requirements that may be applicable due to the Transmission Provider’s technical requirements or Minnesota Technical Requirements, including those set forth in this Agreement.

**Party or Parties** – The Area EPS Operator and the Interconnection Customer.

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Distributed Energy Resource, so long as the physical point of common coupling remains the same; (3) changes or replaces generating equipment such as generator(s), inverter(s), solar panel(s), transformers, relaying, controls, etc. and substitutes equipment that is a like-kind substitution in certification, size, ratings, impedances, efficiencies or capabilities of the equipment; and/or (4) increases the DC/AC ratio but does not increase the maximum AC output capability of the Distributed Energy Resource.

**Point of Common Coupling (PCC)**— The point where the Interconnection Facilities connect with the Area EPS Operator’s Distribution System. See figure 1. Equivalent, in most cases, to “service point” as specified by the Area EPS Operator and described in the National Electrical Code and the National Electrical Safety Code.



**Figure 1: Point of Common Coupling and Point of DER Connection**

(Source: IEEE 1547)

**Point of DER Connection (PoC)** – When identified as the Reference Point of Applicability, the point where an individual DER is electrically connected in a Local EPS and meets the requirements of this standard exclusive of any load present in the respective part of the Local EPS (e.g., terminals of the inverter when no supplemental DER device is required.) For DER Unit(s) that are not self-sufficient to meet the requirements without (a) supplemental DER device(s), the point of DER connection is the point where the requirements of this standard are met by DER in conjunction with (a) supplemental DER device(s) exclusive of any load present in the respective part of the Local EPS.

**Queue Position** – The order of a valid Interconnection Application, relative to all other pending valid Interconnection Applications, that is established based upon the date- and time- of receipt of the complete Interconnection Application as described in MN DIP sections 1.5.2 and 1.8.

**Reasonable Efforts** – With respect to an action required to be attempted or taken by a Party under these procedures, efforts that are timely and consistent with Good Utility Practice and are otherwise substantially equivalent to those a Party would use to protect its own interests.

**Reference Point of Applicability** – The location, either the Point of Common Coupling or the Point of DER Connection, where the interconnection and interoperability performance requirements specified in IEEE 1547 apply. With mutual agreement, the Area EPS Operator and Customer may determine a point between the Point of Common Coupling and Point of DER Connection. See Minnesota DER Technical Interconnection and Interoperability Requirements for more information.

**Simplified Process** – The procedure for evaluating an Interconnection Application for a certified inverter-based DER no larger than 20 kW that uses the screens described in MN DIP section 3.2. The Simplified process includes simplified procedures. MN DIP Attachment 2 Simplified Application Form includes a brief set of terms and conditions and the option for an Interconnection Agreement described in MN DIP 1.1.5. See MN DIP Section 2 Simplified Process.

**Study Process** – The procedure for evaluating an Interconnection Application that includes the MN DIP Section 4 scoping meeting, system impact study, and facilities study.

**Tariff** – The Area EPS Operator’s Tariff filed in compliance with the Minnesota Distributed Energy Resource Interconnection Procedures (MN DIP) and approved by the Minnesota Public Utilities Commission (MPUC or Commission).

**Transmission Owner** – The entity that owns, leases or otherwise possesses an interest in the portion of the Transmission System relevant to the Interconnection.

**Transmission Provider** – The entity (or its designated agent) that owns, leases, controls, or operates transmission facilities used for the transmission of electricity. The term Transmission Provider includes the Transmission Owner when the Transmission Owner is separate from the Transmission Provider. The Transmission Provider may include the Independent System Operator or Regional Transmission Operator.

**Transmission System** – The facilities owned, leased, controlled or operated by the Transmission Provider or the Transmission Owner that are used to provide transmission service. See the Commission’s July 26, 2000 Order Adopting Boundary Guidelines for Distinguishing Transmission from Generation and Distribution Assets in Docket No. E-999/CI-99/1261.

**Uniform Statewide Contract** – State of Minnesota’s standard, uniform contract that must be applied to all qualifying new and existing interconnections between a utility and DER having capacity less than 40 kilowatts if interconnecting with a cooperative or municipal utility and 1,000 kilowatts if interconnecting with a public utility. ([Minn. Rules 7835.9910](#))

**Upgrades** – The required additions and modifications to the Area EPS Operator’s Transmission or Distribution System at or beyond the Point of Interconnection. Upgrades may be Network Upgrades or Distribution Upgrades. Upgrades do not include Interconnection Facilities.

## Attachment 2: Description and Costs of the Distributed Energy Resource, Interconnection Facilities, and Metering Equipment

Equipment, including the Distributed Energy Resource, Interconnection Facilities, and metering equipment shall be itemized and identified as being owned by the Interconnection Customer or the Area EPS Operator. The Area EPS Operator will provide a good faith estimate itemized cost, including administrative overheads, of its Interconnection Facilities and metering equipment, and a good faith estimate itemized cost of the annual operation and maintenance expenses associated with its Interconnection Facilities and metering equipment. The Area EPS shall inform the Interconnection Customer of the option to either pay the metering costs upfront or through a monthly metering fee and provide the customer a copy of the tariff with the metering fee pursuant to MN DIP 5.4.

## Attachment 3: One-line Diagram Depicting the Distributed Energy Resource, Interconnection Facilities, Metering Equipment, and Upgrades

## Attachment 4: Milestones

The Milestone in line (1) below may be a calendar date. All other dates in this Attachment 4 may be number of Business Days from the calendar date in line (1) or from the completion of a different Milestone described in a specified line number. Similarly, the anticipated In-Service Date may be based on the number of Business Days from the completion of a specified line number.

In-Service Date: \_\_\_\_\_

Critical milestones and responsibility as agreed to by the Parties:

	<b>Milestone/Anticipated Date</b>	<b>Responsible Party</b>
(1)	_____	_____
(2)	_____	_____
(3)	_____	_____
(4)	_____	_____
(5)	_____	_____
(6)	_____	_____
(7)	_____	_____
(8)	_____	_____
(9)	_____	_____
(10)	_____	_____

Agreed to by:

For the Area EPS Operator \_\_\_\_\_ Date \_\_\_\_\_

For the Transmission Owner (If Applicable) \_\_\_\_\_ Date \_\_\_\_\_

For the Interconnection Customer \_\_\_\_\_ Date \_\_\_\_\_



## Attachment 5: Additional Operating and Maintenance Requirements for the Area EPS Operator's Distribution System and Affected Systems Needed to Support the Interconnection Customer's Needs

The Area EPS Operator shall also provide requirements that must be met by the Interconnection Customer prior to initiating parallel operation with the Area EPS Operator's Distribution System. Additional operating and maintenance requirements for an Affected System needed to support the Interconnection Customer's needs may be addressed in a separate agreement as described in Article 5.3.

## Attachment 6: Area EPS Operator's Description of Distribution and Network Upgrades and Good Faith Estimates of Upgrade Costs

The Area EPS Operator shall describe Distribution and Network Upgrades and provide an itemized good faith estimate of the costs, including administrative overheads, of the Upgrades and annual operation and maintenance expenses associated with such Upgrades. The Area EPS Operator shall functionalize Upgrade costs and annual expenses as either transmission or distribution related. Additional Distribution or Network Upgrades required for an Affected System may be addressed in a separate agreement as described in Article 5.3.

## Assignment of Minnesota Distributed Energy Resource Interconnection Agreement (MN DIA)

This is an Assignment of Interconnection Agreement (“Assignment”).

There is an Interconnection Agreement, including any and all Attachments thereto including any and all amendments (“Agreement”) by and between Northern States Power Company, a Minnesota corporation, doing business as Xcel Energy (“Area EPS Operator”), having its principal office and place of business located at 414 Nicollet Mall, Minneapolis, \_\_\_\_\_, [city], Minnesota 55401, [zip code], and \_\_\_\_\_ *[insert name of current party to the Interconnection Agreement]* (“Assignor”), originally signed by the Area EPS Operator on \_\_\_\_\_ *[insert date of signature to Interconnection Agreement by Area EPS Operator]* for a Distributed Energy Resource (DER) with a Nameplate Rating of \_\_\_\_ kW (AC) located at \_\_\_\_\_ *[insert address]*.

The Assignor intends to convey its interest in the above-referenced DER to [insert name of new purchaser of the service address shown in Interconnection Application and in one line diagram attached to Agreement] (“Assignee”), and the Assignor intends to assign the Agreement to the Assignee.

Upon the execution of this Assignment by the Assignor, Assignee and the Area EPS Operator, agree as follows:

1. **Capitalized Terms.** Capitalized terms used but not defined herein shall have the meanings set forth in the Agreement.
2. **Consent to Assignment.** The Assignor hereby irrevocably assigns the Agreement in all respects to the Assignee and the Assignee accepts the assignment thereof in all respects.
3. **Amendment to Agreement.** The Area EPS Operator consents to this assignment and, as assigned, the Agreement is hereby amended so that wherever the name of the Assignor is used therein it shall mean the Assignee. It is further agreed that all terms and conditions of the Agreement, as amended by this Assignment, shall remain in full force and effect.
4. **Payments by Area EPS Operator.** Any and all payments made by Area EPS Operator under the Agreement to either the Assignor or the Assignee shall be deemed to have been made to both and shall discharge the Area EPS Operator from any further liability with regard to said payment.

5. **Financial Obligations of Assignor and Assignee.** Any and all financial liability, including but not limited to amounts due, from the Interconnection Customer to the Area EPS Operator, occurring or accruing under the Agreement on or before the date of the signature of the Area EPS Operator to this Assignment shall be deemed to be the obligation of both the Assignor and Assignee, and the Area EPS Operator may recover any such amounts jointly and severally from the Assignor and Assignee.
6. **Contact information.** The following information updates and replaces the designated information as set forth on page 3 of the Agreement, and in Articles 13.1, 13.2, 13.3, and 13.4 of the Agreement.

<b>Page 3</b>	Interconnection Customer: _____ Attention: _____ Address: _____ City: _____ State: _____ Zip: _____ Phone: _____ Email: _____
<b>Article 13.1 General</b>	Interconnection Customer: _____ Attention: _____ Address: _____ City: _____ State: _____ Zip: _____ Phone: _____ Email: _____
<b>Article 13.2 Billing and Payment</b>	Interconnection Customer: _____ Attention: _____ Address: _____ City: _____ State: _____ Zip: _____
<b>Article 13.3 Alternative Forms of Notice</b>	Interconnection Customer: _____ Attention: _____ Address: _____ City: _____ State: _____ Zip: _____

	Phone: _____ Email: _____
<b>Article 13.4 Designated Operating Representative</b>	Interconnection Customer's Operating Representative:  Interconnection Customer: _____  Attention: _____  Address: _____  City: _____ State: _____ Zip: _____  Phone: _____ Email: _____

7. **Signatures.** Facsimile or electronic signatures, or signatures to this 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.

The Area EPS Operator, Assignor, and Assignee have executed this Assignment as of the dates as set forth below.

**Assignor** ( \_\_\_\_\_ *include name of legal entity*)

Signature: \_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

**Area EPS Operator** (Northern States Power Company, a Minnesota corporation)*include name of legal entity*

Signature: \_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

**Assignee** (\_\_\_\_\_)*include name of legal entity*

Signature: \_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

## CERTIFICATE OF SERVICE

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

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

by electronic filing.

**Docket Nos.:            E002/M-18-714 & E999/CI-16-521**

Dated this 14<sup>th</sup> day of December 2018.

/s/

---

Lynette Sweet  
Regulatory Administrator

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Generic Notice	Commerce Attorneys	commerce.attorneys@ag.state.mn.us	Office of the Attorney General-DOC	445 Minnesota Street Suite 1800  St. Paul, MN 55101	Electronic Service	Yes	OFF_SL_18-714_M-18-714
Ian	Dobson	residential.utilities@ag.state.mn.us	Office of the Attorney General-RUD	1400 BRM Tower 445 Minnesota St St. Paul, MN 551012130	Electronic Service	Yes	OFF_SL_18-714_M-18-714
Sharon	Ferguson	sharon.ferguson@state.mn.us	Department of Commerce	85 7th Place E Ste 280  Saint Paul, MN 551012198	Electronic Service	No	OFF_SL_18-714_M-18-714
Lynnette	Sweet	Regulatory.records@xcelenergy.com	Xcel Energy	414 Nicollet Mall FL 7  Minneapolis, MN 554011993	Electronic Service	No	OFF_SL_18-714_M-18-714
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_18-714_M-18-714



First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Ross	Abbey	ross.abbey@us-solar.com	United States Solar Corp.	100 North 6th St Ste 222C  Minneapolis, MN 55403	Electronic Service	No	OFF_SL_16-521_Official Service List PUC
Michael	Allen	michael.allen@allenergysolar.com	All Energy Solar	721 W 26th st Suite 211  Minneapolis, Minnesota 55405	Electronic Service	No	OFF_SL_16-521_Official Service List PUC
David	Amster Olzweski	david@mysunshare.com	SunShare, LLC	1774 Platte St  Denver, CO 80202	Electronic Service	No	OFF_SL_16-521_Official Service List PUC
Mark	Anderson	manderson@southcentralelectric.com	South Central Electric Association	PO Box 150 71176 Tiell Drive St. James, MN 56081	Electronic Service	No	OFF_SL_16-521_Official Service List PUC
Christopher	Anderson	canderson@allete.com	Minnesota Power	30 W Superior St  Duluth, MN 558022191	Electronic Service	No	OFF_SL_16-521_Official Service List PUC
Janet	Anderson	jainstp@q.com	-	1799 Sargent  St. Paul, MN 55105	Electronic Service	No	OFF_SL_16-521_Official Service List PUC
Christine	Andrews	christineandrewsjd@gmail.com		792 Goodrich Ave  St Paul, Minnesota 55105	Electronic Service	No	OFF_SL_16-521_Official Service List PUC
Alison C	Archer	aarcher@misoenergy.org	MISO	2985 Ames Crossing Rd  Eagan, MN 55121	Electronic Service	No	OFF_SL_16-521_Official Service List PUC
John	Bailey	bailey@ilsr.org	Institute For Local Self-Reliance	1313 5th St SE Ste 303  Minneapolis, MN 55414	Electronic Service	No	OFF_SL_16-521_Official Service List PUC
Sara	Baldwin Auck	sarab@irecusa.org	Interstate Renewable Energy Council, Inc.	PO Box 1156  Latham, NY 12110	Electronic Service	No	OFF_SL_16-521_Official Service List PUC

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Sara	Bergan	sebergan@stoel.com	Stoel Rives LLP	33 South Sixth Street Suite 4200 Minneapolis, MN 55402	Electronic Service	No	OFF_SL_16-521_Official Service List PUC
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First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
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First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
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First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
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First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
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First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
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First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
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Samantha	Norris	samanthanorris@alliantenergy.com	Interstate Power and Light Company	200 1st Street SE PO Box 351  Cedar Rapids, IA 524060351	Electronic Service	No	OFF_SL_16-521_Official Service List PUC
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Russell	Olson	rolson@hcpd.com	Heartland Consumers Power District	PO Box 248  Madison, SD 570420248	Electronic Service	No	OFF_SL_16-521_Official Service List PUC
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