



January 31, 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: COMPLIANCE FILING UPDATE

STANDBY SERVICE TARIFFS DOCKET NO. E999/CI-15-115

Dear Mr. Wolf:

Northern States Power Company, doing business as Xcel Energy, submits this letter as an update to the letter filed by the Company on December 4, 2017.

Since the Company's update to the Commission on December 4, 2017, we have continued discussions with Flint Hills Resources. We have reached agreement on certain topics related to this customer's interest in terms of Standby Service applicable to the customer's forthcoming Combined Heat and Power (CHP) facility, which is sized greater than 10 MW, including revisions that would apply to all standby service customers independent of customer generation capacity size. The Company supports a Decision Alternative inclusive of all of the following components:

Direct the Company to modify its Standby Service Rider to

- a. Specify the three types of standby service options in the Availability provision;
- b. Remove the exempt (grace) hours provision as recommended by the Department with a corresponding reduction in the Peak Period Standby Energy Surcharge per kWh;
- c. Reduce the share of generation and transmission costs included in the standby reservation demand rate from 12 percent to 10 percent of the amount included in base tariff demand rates;
- d. Clarify that energy used under the standby Rider does not qualify for the base tariff Energy Charge Credit

- e. Revise the definition of peak period standby energy for consistency with the removal of the exempt hours provision and to more specifically define its measurement;
- f. Add clarity to the Determination of the Demand provision
- g. Retain the option for monthly revisions of contract standby capacity as recommended in the Company's May 15, 2017 Reply Comments;
- h. Specify in the Standby Service Electric Service Agreement the process and requirements for nominating contracted Standby capacity, including seasonal or monthly levels;
- i. Remove the definition of excess standby energy usage from the Terms and Conditions of Service (No. 9) as unnecessary without an exempt hours provision;
- j. Revise the applicable charge for use of unscheduled standby service during system peak hours that results in the Company incurring additional capacity costs. The revision is a one month application of the base tariff demand rate in place of the standby reservation demand rate for the quantity of unscheduled backup demand supplied by Company during system peak hours following advance notice by Company;
- k. Allow additional scheduled maintenance periods for customers with greater than 10,000 kW of contracted standby capacity subject to advance notice and Company approval
- l. Revise the maximum annual duration of qualified scheduled maintenance periods from six weeks to eight weeks, as recommended in the Company's May 15, 2017 Reply Comments
- m. Revise the charge for non-compliance with Scheduled Maintenance Option requirements and limit its applicability to a single month

Parties agree to certain revisions to Standby Service that would support its use for service to Flint Hills Resources and would replace their request for the formation of a separate Large CHP Rider. The Company's agreement to the revisions described here are contingent on parties' ongoing agreement to use the Standby Rider as modified.

For ease of review, we have included a redline to the Company's current tariff, reflecting both the pending modification proposal as well as the terms of this agreement. The redline and clean tariff sheets are included as Attachment A to this letter.

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 <a href="mailto:amber.r.hedlund@xcelenergy.com">amber.r.hedlund@xcelenergy.com</a> or (612) 337-2268, or me at <a href="mailto:amy.a.liberkowski@xcelenergy.com">amy.a.liberkowski@xcelenergy.com</a> or (612) 330-6613 if you have any questions regarding this filing.

## Sincerely,

/s/

AMY A. LIBERKOWSKI
DIRECTOR, REGULATORY PRICING & ANALYSIS

Enclosure c: Service List

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President, Northern States Power Company, a Minnesota corporation

Docket No. E002/<del>GR-15-826</del><u>M-13-315 &</u> Order Date: <del>06-12-17</del>

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#### STANDBY SERVICE RIDER

Section No. 5 17th 18th Revised Sheet No. 101

## **AVAILABILITY**

Applicable to customers that use an <u>customer-sited</u> generation source with a capacity greater than 100 kW, where the customer-sitedalternative generation serves all or a portion of customer's electric energy requirements and where customer chooses to use the Company's electric service to serve that load when the customer-sitedalternative generation is either partly or wholly unavailable. Customer must select one of the following services types: Firm Unscheduled Maintenance, Firm Scheduled Maintenance, or Non-Firm service. This Rider is not available to solar photovoltaic generation systems and is closed to new wind generation systems.

Under this tariff the Company will provide Standby Service in accordance with the provisions of this tariff as well as those of Section 2.4 of the General Rules and Regulations.

| RESERVATION RATE   |                                  |                                  |                |
|--|----------------------------------|----------------------------------|----------------|
|  | <u>Firm</u>                      | <u>Standby</u>                   | Non-Firm       |
|  | Unscheduled                      | _ Scheduled                      | <u>Standby</u> |
|  | <u>Maintenance</u>               | <u>Maintenance</u>               |                |
| Customer Charge per Month                                  | \$25.64                          | \$25.64                          | \$25.64        |
| Reservation Demand Charge per Month                        |                                  |                                  |                |
| per kW of Contracted Standby Capacity                      |                                  |                                  |                |
| Secondary Voltage Service                                  | <del>\$3.5</del> 4 <u>\$3.34</u> | <del>\$3.44</del> <u>\$3.24</u>  | \$2.35         |
| Primary Voltage Service                                    | <del>\$2.74</del> \$2.54         | <del>\$2.6</del> 4 <u>\$2.44</u> | \$1.55         |
| Transmission Transformed Voltage Service                   | <del>\$1.99</del> \$1.79         | <del>\$1.89</del> \$1.69         | \$0.80         |
| Transmission Voltage Service                               | <del>\$1.19</del> <u>\$0.99</u>  | <del>\$1.09</del> <u>\$0.89</u>  | \$0.00         |
| Hours per kW of Contracted Standby Capacity - Annual Grace | - <del>964</del>                 | <del>964</del>                   | e              |
| Period Use of Unscheduled Standby, Exemption from the      |                                  |                                  |                |
| Demand Charge Component of the "Usage Rates" below.        |                                  |                                  |                |
| Peak Period Standby Energy Surcharge per kWh               |                                  |                                  |                |
| June – September   |                                  | \$0.06362                        |                |
| Other Months   |                                  | \$0.04123                        |                |

Energy Charge per kWh. All energy used under this Rider will be charged at the applicable energy rate of the base tariff to which this Rider is attached and is not applicable to the base tariff Energy Charge Credit.

## **DEFINITION OF PEAK PERIOD FOR STANDBY ENERGY**

Peak period hours are the six hours between 1:00 p.m. and 7 p.m. for all days. Standby Energy subject to the Peak Period Standby Energy Surcharge will be measured for each 15-minute interval of peak period hours, as the quantity of kWh energy produced by the customer-sited generation source that is below the quantity of kWh energy associated with operating the customer-sited generation source at the contracted Standby kW capacity level. The Peak Period Standby Energy Surcharge will apply to the total of such measured kWh for all qualifying 15-minute Peak Period intervals.

**USAGE RATES** 

(Continued on Sheet No. 5-102)

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## MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2

# STANDBY SERVICE RIDER Section No. 5 17th 18th Revised Sheet No. 101

<u>Demand Charge per kW of Standby Capacity Used.</u> After the Annual Grace Period hours provided for Unscheduled and Scheduled Service are used up, the Demand Charge of the base tariff, to which this Rider is attached, replaces the above Reservation Rate.

<u>Energy Charge per kWh of Standby Energy Used.</u> All energy used under this Rider will be charged at the applicable energy rate of the base tariff to which this Rider is attached.

## **PHOTOVOLTAIC SOLAR CREDIT**

A capacity credit of \$5.15 per month per kW is applicable when the alternative generation source used by the customer is photovoltaic solar. This credit shall only be applied to the applicable Demand Charge of the base tariff for the contracted demand component of the Usage Rates outside of the Grace Period.

In addition, customer bills under this rate are subject to the following adjustments and/or charges.

## **FUEL CLAUSE**

Bills are subject to the adjustments provided for in the Fuel Clause Rider.

(Continued on Sheet No. 5-102)

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Section No. 5

13th14th Revised Sheet No. 102

### **RESOURCE ADJUSTMENT**

Bills are subject to the adjustments provided for in the Conservation Improvement Program Adjustment Rider, the State Energy Policy Rate Rider, the Renewable Development Fund Rider, the Transmission Cost Recovery Rider, the Renewable Energy Standard Rider and the Mercury Cost Recovery Rider.

### **ENVIRONMENTAL IMPROVEMENT RIDER**

Bills are subject to the adjustments provided for in the Environmental Improvement Rider.

#### **SURCHARGE**

In certain communities, bills are subject to surcharges provided for in a Surcharge Rider.

### LOW INCOME ENERGY DISCOUNT RIDER

Bills are subject to the adjustment provided for in the Low Income Energy Discount Rider.

In addition, customer bills under this rate are subject to the following adjustments and/or charges.

#### LATE PAYMENT CHARGE

Any unpaid balance over \$10.00 is subject to a 1.5% late payment charge or \$1.00, whichever is greater, after the date due. The charge may be assessed as provided for in the General Rules and Regulations, Section 3.5.

### **DETERMINATION OF DEMAND**

The billing demand applicable to this Standby Service Rider is determined separately from the billing demand applicable to the base tariff to which this Rider attaches. The demand associated with actual use of Standby Service will be subtracted from the total metered demand, to determine the demand for standard service, to which the base tariff demand charge applies. The maximum actual demand used in the base tariff provision for Determination of Demand is the total customer load less contracted Standby capacity.

For applying the Standby Service Reservation Rate, the billing demand will be the contracted Standby capacity specified in the customer's Electric Service Agreement, which is the maximum capacity of Standby Service the Company is obligated to supply, and is the amount of load served by the customer's alternative generation. In no case shall the contracted Standby capacity be established at more than the capacity of the customer's generation facility. This contracted Standby capacity may be different for the summer and winter seasons or by month.

For applying the demand component of the Usage Rates, the billing demand shall be the capacity actually usedby the customer, when customer's generator is wholly or partly out of service. This amount of Standby capacity actually used shall be the contracted Standby capacity less the actual capacity supplied by the customer's generating facilities (assuming it is operating, but not at full capacity), but not less than zero.

## TERMS AND CONDITIONS OF SERVICE

Standby Service Rider is applicable to any customer who requires greater than 100 kW of Standby capacity. Standby Service may not be used by a customer to serve controllable demand that is subject to interruption as determined by the Company under the Company's controllable service schedules.

(Continued on Sheet No. 5-103)

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## TERMS AND CONDITIONS OF SERVICE (Continued)

- Customer will execute an Electric Service Agreement with the Company which will specify:
  - a. Type of Standby Service elected by the customer and the base tariff to which this Rider is attached.
  - <u>b.</u> —The total Standby capacity requirements for which Company will be providing Standby power and to which the Standby Service reservation rate applies as well as the expected level of standard service the customer will take, even if the standard service level is expected to be zero.
  - b.c. The process and requirements for nominating contracted Standby capacity, including seasonal or monthly levels.
- The Company's standard service meter will be detented to measure only the amount of capacity and energy provided by the Company to the customer.
- 4. Company will not be obligated to supply Standby Service to back-up a customer's generator at a level in excess of the Standby capacity for which customer has contracted. This restriction in no way limits the amount of standard service the customer requires from the Company under the standard service tariff to which this Rider is attached. Any limits on standard service are governed by the provisions contained in the standard service tariffs.
- Customer will be liable for all damages allowed by law to the extent caused by customer's use of Standby power in excess of contracted Standby capacity.
- 6. Company will require customer to revise the Electric Service Agreement to contract for additional Standby capacity if the customer exceeds the contract amount in any three of the preceding 12 months.
- 7. Customer will annually furnish documentation to Company confirming the maximum capacity and reliability of the power source for which customer requires Standby Service. The Company and the customer will review the actual output and performance of the power source relative to the capacity nominated for Standby Service in the Electric Service Agreement. If this review shows a significant and consistent shortfall between the power source's actual performance and the nominated capacity due to factors reasonably within the customer's control, the Company will notify the customer of its intent to refuse to provide Standby Service. Upon receipt of such notice, the customer may agree to reduce the Standby Service nomination in its Electric Service Agreement or to take such action as necessary to operate the power source at or reasonably near the nominated Standby Service capacity. If the customer's power source does not operate at or reasonably near that level during the 12 months immediately following the Company's notice, the Company may refuse to provide Standby Service until such time as the customer agrees to reduce its Standby Service nomination or provide the Company with documentation demonstrating the power source's actual performance at or reasonably near the nominated Standby Service capacity for a trial period of three consecutive months.
- 8. Customer will remain on Standby Service for a period of not less than 12 months.

(Continued on Sheet No. 5-104)

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Section No. 5

7th8th Revised Sheet No. 104

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

9. Customer will be allowed annually a Grace Period as specified above for use of unscheduled Standby-Service without incurring additional demand charges for use of Standby Service. Use of this Grace Period-will be measured in terms of Standby energy used by customer with the maximum amount of grace energy being the hours specified above times the contracted Standby capacity. After the Grace Period has been-exhausted and customer uses unscheduled Standby Service, the customer shall pay the Demand Charge-specified in the Usage Rates instead of the Reservation Fees as listed above. In a billing month, when-customer uses Standby Service, the base tariff billing demand and the Standby Service billing demand will be determined individually. The base tariff billing demand will be the greatest 15 minute load determined after separating Standby Service usage from the total metered demands. The time of this determined greatest 15 minute demand for application to the base tariff may or may not occur at the same time when Standby Service is used. Billed demand charges for usage of Standby Service will be in addition to the billed demand charges for the base tariff as just described.

Customers contracting for Standby Service to back up a solar photovoltaic system have the option to-move their annual start date and subsequent Grace-Periods forward to June 1. However, a customer shall not receive two annual Grace-Periods for the same solar photovoltaic system in any rolling 12-month-billing period.

- 10. Notwithstanding the Grace Period noted in provision 9 above, in the event customer requires unscheduled Standby Service at the times of Company's system peak hours in which the Company would have insufficient accredited capacity under the Midwest Reliability Organization (MRO) or any successor organization, and the Company incurs additional capacity costs as a result of such unscheduled Standby Service, customer shall pay Peak Demand Charges described below for the month in which such unscheduled Standby Service occurs and for each of the five succeeding months, instead of the above listed demand charges, or the demand charges under Section 9 above. Such Peak Demand Charges shall be based upon the following:
- a. If customer has notified Company of an unscheduled outage at least three hours prior to Company's system peak hour, such Peak Demand Charges shall be based on one-sixth of any additional capacity costs incurred by the Company as a result of the unscheduled outage. Such additional capacity costs shall not include any after-the-fact capacity purchase costs incurred by the Company.
- b. If customer has not notified the Company of any unscheduled outage at least three hours prior to the Company's system peak hour, such peak demand charges shall be based on one-sixth of any additional capacity costs or after-the-fact purchase costs incurred by the Company as a result of the unscheduled outage. The demand for billing purposes for the succeeding five months shall be equal to the demand-placed on the system during the time of the Company's system peak hour in which the said additional capacity costs were incurred.
- In the event Company provides advance notice to customer of expected system peak load conditions for a specified time period and customer uses unscheduled standby backup demand during that time period, the

(Continued on Sheet No. 5-105)

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backup demand quantity used will be billed at the firm service demand charge from the base tariff to which this Rider is attached instead of the Reservation Demand charge. The quantity of unscheduled standby backup demand used for this provision will be the maximum 15-minute measured interval of unscheduled standby backup demand used during the specified system peak hours, measured as contracted standby capacity less the capacity provided by the customer-sited generation source. Company notice of expected system peak load conditions for this provision will be provided through the same means Company uses to notify interruptible customers of an interruption requirement.

(Continued on Sheet No. 5-105)

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Section No. 5

7th8th Revised Sheet No. 105

## TERMS AND CONDITIONS OF SERVICE (Continued)

The provisions of this Section 10 shall not apply if appropriate capacity accreditation has been obtained for the customer's generation from the Midwest Reliability Organization (MRO), or any successor-organization. Customer must take responsibility for the preparation of the information necessary for the accreditation filling. The Company will advise and assist the Customer in this process but failure of customer in the preparation of the information and/or failure to obtain accreditation of the customer's generation will result in the customer being ineligible for the exemption from the provisions of this Section 10.

- 11. In the event any portion of the capacity obtained by the Company, at additional costs, and which is attributable to the customer's use of Standby Service under Section 10 above, is subsequently also used to satisfy the requirements of the Company's other customers, the Peak Demand Charges under Section 10 above shall be reduced relative to the portion of said capacity used to serve other customers.
- 12. The Company shall provide notice to the Standby customers when peak load conditions are expected to occur through the same means that the Company notifies interruptible customers of the potential-interruption.
- 10. Company will install and charge customer for the additional metering necessary, to allow for determination of the separate billing demand applicable to the base tariff and Standby Rider and for determining Peak Period Standby Energy usage energy use under the Grace Period identified above. In particular, the Company will install a separate meter that measures the flow of power and energy from the customer's own generating facility. Customer shall reimburse the Company for the costs of installing, operating, and maintaining the required additional metering and for any other facilities required to serve the customer's Standby load. If, as a result of the customer's construction and installation of their generating facility, it is more practical for the customer to install some or all of the metering equipment required, the customer may be permitted to do so, subject to Company's approval of such equipment.

(Continued on Sheet No. 5-106)

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Section No. 5

7th8th Revised Sheet No. 106

## ADDITIONAL TERMS AND CONDITIONS OF SERVICE ASSOCIATED WITH THE SCHEDULED MAINTENANCE OPTION

- 1. The optional Scheduled Maintenance rates are available to Standby Service customers who agree to schedule maintenance of their power source during qualifying scheduled maintenance periods.
- 2. Qualifying Scheduled Maintenance Periods

<u>Customers With Greater Than 100 kW to 10,000 kW of Contracted Standby Capacity.</u> Maintenance must occur within the calendar months of April, May, October, and November. Customer must provide Company with written notice of scheduled maintenance prior to the beginning of the maintenance period.

Customers With Greater Than 10,000 kW of Contracted Standby Capacity. Maintenance must occur at a time period mutually agreed to by Company and customer. These time periods will normally not include those times when Company expects system seasonal peak load conditions to occur, nor at those times when Company is required to use generation or to purchase power, with production costs of \$70 or more per MWh.\_\_The Company may also approve as a qualified scheduled maintenance period the peak period hours of weekend days, and holidays as identified in the base tariff to which this Rider is attached, after receiving a documented customer request no less than 48 hours prior to the beginning of the peak period. Company will endeavor to approve or deny the customer request within 24 hours of receiving the request. Customer shall provide an annual projection of scheduled maintenance to the Company. Customer shall be allowed changes or additions to this projection upon notice to the Company based on the following schedule:

Outage LengthRequired NoticeLess than 48 hours24 hours2 days to 30 days7 daysOver 30 days90 days

- 3. The duration of qualifying scheduled maintenance periods may not exceed a total of sixeight weeks in any 12 month period.
- 4. An additional charge shall apply in customer does not comply with all terms and conditions for qualifying scheduled maintenance periods during any billing month, all use of Standby Service for the same month will be subject to the Peak Period Standby Energy charge provision. Company may determine partial non-compliance and limit the quantity of Standby Service usage subject to the Peak Period Standby Energy Surcharge. Company reserves the right to remove availability of the Scheduled Maintenance Option for any customer upon a determination of significant and multiple occurrences of failure to comply with all associated terms and conditions. The additional charge shall be determined by calculating the additional charges which would have applied if customer were billed on the Unscheduled Maintenance Option for the period extending back to the customer's last scheduled maintenance period.

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## **STANDBY SERVICE RIDER (Continued)**

Section No. 5 7th8th Revised Sheet No. 106

The demand charges of the base tariffs shall not apply to use of Standby Service during qualifyingscheduled maintenance periods. Also, The use of Standby Service during qualifying scheduled maintenance periods, will not count against the grace period be included in the determination of Peak Period Standby Energy usage.

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10-01-17

President, Northern States Power Company, a Minnesota corporation

Docket No. E002/GR-15-826M-13-315 & E999/CI-15-115

06-12-17 Order Date:

COMPETITIVE MARKET RIDER
(Continued)PHOTOVOLTAIC DEMAND CREDIT RIDER
RATE CODE A85 (CLOSED)

Section No. 5

3rd4th Revised Sheet No. 125

**RATE CODE A86** 

## **CANCELLED AVAILABILITY - GENERAL**

Applicable by customer request to demand-metered commercial and industrial customers that use Solar Photovoltaic as a customer-sited generation source with a capacity greater than 40 kW (AC) with a single production meter to serve all or a portion of customer's electric energy requirements. Not available to customer-sited generation that is the subject of another incentive program such as Solar\*Rewards.

## **AVAILABILITY - CLOSED RATE**

Availability of the closed rate is limited to qualifying customer account locations that: 1) are receiving Standby Service Rider tariff service with the Photovoltaic Solar Credit on the date this Rider is originally approved by the Commission, or 2) have enrolled for the Rider before the date the credit rate in this Rider is revised by the Commission. The closed rate will remain fixed for a six year period beginning with the original Commission order date approving this Rider, expiring \_\_\_\_\_\_\_, 2024. After expiration of the closed rate, the applicable standard rate will replace the closed rate.

The standard rate will apply to customer account locations that do not qualify for the closed rate. The standard rate may be revised at any time subject to approval by the Commission.

#### RATE

Customer Charge per Month \$25.75

| Credit per kWh of Peak Period Solar Photovoltaic Generation (A85 - Closed)   | \$0.07139 |
|--|-----------|
| Credit per kWh of Peak Period Solar Photovoltaic Generation (A86 - Standard) | \$0.07139 |

## **CREDIT KWH LIMIT**

The maximum kWh applied to the Rider credit per kWh each billing period is the Peak Period maximum 15-minute Solar Photovoltaic kW output for the billing period times 100 hours for billing periods ending in the months of June, July, August or September and 75 hours for billing periods ending in other months.

## **CREDIT LIMIT**

The maximum credit for each billing period is the applicable standard or on-peak billed demand charge from the base tariff associated with this Rider. For Peak-Controlled Service and Peak-Controlled Time of Day Service customers, the maximum credit for each billing period is the billed demand charge for Firm Demand.

## **DEFINITION OF PEAK PERIOD**

Peak period hours are the six hours between 1:00 p.m. and 7 p.m. for all days.

## TERMS AND CONDITIONS OF SERVICE

- 1. Customer will execute an Electric Service Agreement with the Company that will specify:
  - a) The base tariff associated with this Rider, and
  - b) The installed capacity (AC) of customer's Solar Photovoltaic generation.
- 2. Company will install, own, and maintain the metering to measure the electric power and energy supplied by customer generation to allow for proper billing of the customer under this Rider. If, as a result of the customer's construction and installation of their generating facility, it is more practical for the customer to install some or all of the metering equipment required, the customer may be permitted to do so, subject to Company's approval of such equipment.

Date Filed: 41-02-1205-19-16 By: David M. Sparby Christopher B. Clark Effective Date: 12-01-13

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

Docket No. E002/<del>GR 12-961M-13-315 &</del> Order Date: <del>09-03-13</del>

E999/CI-15-115

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

**PROPOSED** 

MINNESOTA ELECTRIC RATE BOOK - MPUC NO. 2

**COMPETITIVE MARKET RIDER** (Continued) PHOTOVOLTAIC DEMAND CREDIT RIDER **RATE CODE A85 (CLOSED)** 

**RATE CODE A86** 

Section No. 5 3rd4th Revised Sheet No. 125

- Company reserves the right to limit availability of this Rider to customer situations where the Solar Photovoltaic generation used by customer does not significantly affect the monthly peak demand of customer.
- For Solar Photovoltaic generation, this Rider supersedes other Standby Service tariff provisions.

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Date Filed: <del>11-02-12</del>05-19-16 By: David M. SparbyChristopher B. Clark Effective Date: 12-01-13

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

E002/<del>GR-12-961</del><u>M-13-315 &</u> 09-03-13 Docket No. Order Date:

E999/CI-15-115

Docket No. E999/CI-15-115 January 31, 2018 Compliance Filing Update Attachment A - Page 15 of 24

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17th Revised Sheet No. 3

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## (Continued on Sheet No. 1-4)

Date Filed: 05-19-16 By: Christopher B. Clark Effective Date:

President, Northern States Power Company, a Minnesota corporation

Docket No. E002/M-13-315 & Order Date:

E999/CI-15-115

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Date Filed: 05-19-16 By: Christopher B. Clark Effective Date:

President, Northern States Power Company, a Minnesota corporation

Docket No. E002/M-13-315 & E999/CI-15-115 Order Date:

#### STANDBY SERVICE RIDER

Section No. 5 18th Revised Sheet No. 101

## **AVAILABILITY**

Applicable to customers that use a customer-sited generation source with a capacity greater than 100 kW, where the customer-sited generation serves all or a portion of customer's electric energy requirements and where customer chooses to use the Company's electric service to serve that load when the customer-sited generation is either partly or wholly unavailable. Customer must select one of the following services types: Firm Unscheduled Maintenance, Firm Scheduled Maintenance, or Non-Firm service. This Rider is not available to solar photovoltaic generation systems and is closed to new wind generation systems.

Under this tariff the Company will provide Standby Service in accordance with the provisions of this tariff as well as those of Section 2.4 of the General Rules and Regulations.

RATE

|   | Firm S                            | <u>Standby</u>                  | Non-Firm       |
|---|-----------------------------------|---------------------------------|----------------|
|   | Unscheduled<br><u>Maintenance</u> | Scheduled<br><u>Maintenance</u> | <u>Standby</u> |
| Customer Charge per Month   | \$25.64                           | \$25.64                         | \$25.64        |
| Reservation Demand Charge per Month per kW of Contracted Standby Capacity |                                   |                                 |                |
| Secondary Voltage Service   | \$3.34                            | \$3.24                          | \$2.35         |
| Primary Voltage Service   | \$2.54                            | \$2.44                          | \$1.55         |
| Transmission Transformed Voltage Service                                  | \$1.79                            | \$1.69                          | \$0.80         |
| Transmission Voltage Service  | \$0.99                            | \$0.89                          | \$0.00         |
| Peak Period Standby Energy Surcharge per kWh                              |                                   |                                 |                |
| June – September  |                                   | \$0.06362                       |                |
| Other Months  |                                   | \$0.04123                       |                |

<u>Energy Charge per kWh.</u> All energy used under this Rider will be charged at the applicable energy rate of the base tariff to which this Rider is attached and is not applicable to the base tariff Energy Charge Credit.

## **DEFINITION OF PEAK PERIOD FOR STANDBY ENERGY**

Peak period hours are the six hours between 1:00 p.m. and 7 p.m. for all days. Standby Energy subject to the Peak Period Standby Energy Surcharge will be measured for each 15-minute interval of peak period hours, as the quantity of kWh energy produced by the customer-sited generation source that is below the quantity of kWh energy associated with operating the customer-sited generation source at the contracted Standby kW capacity level. The Peak Period Standby Energy Surcharge will apply to the total of such measured kWh for all qualifying 15-minute Peak Period intervals.

In addition, customer bills under this rate are subject to the following adjustments and/or charges.

### **FUEL CLAUSE**

Bills are subject to the adjustments provided for in the Fuel Clause Rider.

## (Continued on Sheet No. 5-102)

Date Filed: 05-19-16 By: Christopher B. Clark Effective Date:

President, Northern States Power Company, a Minnesota corporation

Docket No. E002/M-13-315 & E999/CI-15-115 Order Date:

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## STANDBY SERVICE RIDER (Continued)

Section No. 5 14th Revised Sheet No. 102

### **RESOURCE ADJUSTMENT**

Bills are subject to the adjustments provided for in the Conservation Improvement Program Adjustment Rider, the State Energy Policy Rate Rider, the Renewable Development Fund Rider, the Transmission Cost Recovery Rider, the Renewable Energy Standard Rider and the Mercury Cost Recovery Rider.

### **ENVIRONMENTAL IMPROVEMENT RIDER**

Bills are subject to the adjustments provided for in the Environmental Improvement Rider.

#### **SURCHARGE**

In certain communities, bills are subject to surcharges provided for in a Surcharge Rider.

#### LOW INCOME ENERGY DISCOUNT RIDER

Bills are subject to the adjustment provided for in the Low Income Energy Discount Rider.

In addition, customer bills under this rate are subject to the following adjustments and/or charges.

#### LATE PAYMENT CHARGE

Any unpaid balance over \$10.00 is subject to a 1.5% late payment charge or \$1.00, whichever is greater, after the date due. The charge may be assessed as provided for in the General Rules and Regulations, Section 3.5.

### **DETERMINATION OF DEMAND**

The billing demand applicable to this Standby Service Rider is determined separately from the billing demand applicable to the base tariff to which this Rider attaches. The demand associated with actual use of Standby Service will be subtracted from the total metered demand, to determine the demand for standard service, to which the base tariff demand charge applies. The maximum actual demand used in the base tariff provision for Determination of Demand is the total customer load less contracted Standby capacity.

For applying the Standby Service Reservation Rate, the billing demand will be the contracted Standby capacity specified in the customer's Electric Service Agreement, which is the maximum capacity of Standby Service the Company is obligated to supply, and is the amount of load served by the customer's alternative generation. In no case shall the contracted Standby capacity be established at more than the capacity of the customer's generation facility. This contracted Standby capacity may be different for the summer and winter seasons or by month.

## TERMS AND CONDITIONS OF SERVICE

 Standby Service Rider is applicable to any customer who requires greater than 100 kW of Standby capacity. Standby Service may not be used by a customer to serve controllable demand that is subject to interruption as determined by the Company under the Company's controllable service schedules.

(Continued on Sheet No. 5-103)

Date Filed: 05-19-16 By: Christopher B. Clark Effective Date:

President, Northern States Power Company, a Minnesota corporation

Docket No. E002/M-13-315 & E999/CI-15-115 Order Date:

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Section No. 5 7th Revised Sheet No. 103

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

- 2. Customer will execute an Electric Service Agreement with the Company which will specify:
  - a. Type of Standby Service elected by the customer and the base tariff to which this Rider is attached.
  - b. The total Standby capacity requirements for which Company will be providing Standby power and to which the Standby Service reservation rate applies as well as the expected level of standard service the customer will take, even if the standard service level is expected to be zero.
  - c. The process and requirements for nominating contracted Standby capacity, including seasonal or monthly levels.
- The Company's standard service meter will be detented to measure only the amount of capacity and energy provided by the Company to the customer.
- 4. Company will not be obligated to supply Standby Service to back-up a customer's generator at a level in excess of the Standby capacity for which customer has contracted. This restriction in no way limits the amount of standard service the customer requires from the Company under the standard service tariff to which this Rider is attached. Any limits on standard service are governed by the provisions contained in the standard service tariffs.
- 5. Customer will be liable for all damages allowed by law to the extent caused by customer's use of Standby power in excess of contracted Standby capacity.
- Company will require customer to revise the Electric Service Agreement to contract for additional Standby capacity if the customer exceeds the contract amount in any three of the preceding 12 months.
- 7. Customer will annually furnish documentation to Company confirming the maximum capacity and reliability of the power source for which customer requires Standby Service. The Company and the customer will review the actual output and performance of the power source relative to the capacity nominated for Standby Service in the Electric Service Agreement. If this review shows a significant and consistent shortfall between the power source's actual performance and the nominated capacity due to factors reasonably within the customer's control, the Company will notify the customer of its intent to refuse to provide Standby Service. Upon receipt of such notice, the customer may agree to reduce the Standby Service nomination in its Electric Service Agreement or to take such action as necessary to operate the power source at or reasonably near the nominated Standby Service capacity. If the customer's power source does not operate at or reasonably near that level during the 12 months immediately following the Company's notice, the Company may refuse to provide Standby Service until such time as the customer agrees to reduce its Standby Service nomination or provide the Company with documentation demonstrating the power source's actual performance at or reasonably near the nominated Standby Service capacity for a trial period of three consecutive months.
- 8. Customer will remain on Standby Service for a period of not less than 12 months.

(Continued on Sheet No. 5-104)

Date Filed: 05-19-16 By: Christopher B. Clark Effective Date:

President, Northern States Power Company, a Minnesota corporation

Docket No. E002/M-13-315 & E999/CI-15-115 Order Date:

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## **STANDBY SERVICE RIDER (Continued)**

Section No. 5 8th Revised Sheet No. 104

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

9. In the event Company provides advance notice to customer of expected system peak load conditions for a specified time period and customer uses unscheduled standby backup demand during that time period, the backup demand quantity used will be billed at the firm service demand charge from the base tariff to which this Rider is attached instead of the Reservation Demand charge. The quantity of unscheduled standby backup demand used for this provision will be the maximum 15-minute measured interval of unscheduled standby backup demand used during the specified system peak hours, measured as contracted standby capacity less the capacity provided by the customer-sited generation source. Company notice of expected system peak load conditions for this provision will be provided through the same means Company uses to notify interruptible customers of an interruption requirement.

(Continued on Sheet No. 5-105)

Date Filed: 05-19-16 By: Christopher B. Clark

Effective Date:

President, Northern States Power Company, a Minnesota corporation

Docket No. E002/M-13-315 & E999/CI-15-115

Order Date:

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## STANDBY SERVICE RIDER (Continued)

8th Revised Sheet No. 105

Section No. 5

## TERMS AND CONDITIONS OF SERVICE (Continued)

10. Company will install and charge customer for the additional metering necessary, to allow for determining Peak Period Standby Energy usage. In particular, the Company will install a separate meter that measures the flow of power and energy from the customer's own generating facility. Customer shall reimburse the Company for the costs of installing, operating, and maintaining the required additional metering and for any other facilities required to serve the customer's Standby load. If, as a result of the customer's construction and installation of their generating facility, it is more practical for the customer to install some or all of the metering equipment required, the customer may be permitted to do so, subject to Company's approval of such equipment.

(Continued on Sheet No. 5-106)

Date Filed: 05-19-16 By: Christopher B. Clark Effective Date:

President, Northern States Power Company, a Minnesota corporation

Docket No. E002/M-13-315 & E999/CI-15-115 Order Date:

Section No. 5 8th Revised Sheet No. 106

## ADDITIONAL TERMS AND CONDITIONS OF SERVICE ASSOCIATED WITH THE SCHEDULED MAINTENANCE OPTION

- 1. The optional Scheduled Maintenance rates are available to Standby Service customers who agree to schedule maintenance of their power source during qualifying scheduled maintenance periods.
- 2. Qualifying Scheduled Maintenance Periods

<u>Customers With Greater Than 100 kW to 10,000 kW of Contracted Standby Capacity.</u> Maintenance must occur within the calendar months of April, May, October, and November. Customer must provide Company with written notice of scheduled maintenance prior to the beginning of the maintenance period.

Customers With Greater Than 10,000 kW of Contracted Standby Capacity. Maintenance must occur at a time period mutually agreed to by Company and customer. These time periods will normally not include those times when Company expects system seasonal peak load conditions to occur, nor at those times when Company is required to use generation or to purchase power, with production costs of \$70 or more per MWh. The Company may also approve as a qualified scheduled maintenance period the peak period hours of weekend days, and holidays as identified in the base tariff to which this Rider is attached, after receiving a documented customer request no less than 48 hours prior to the beginning of the peak period. Company will endeavor to approve or deny the customer request within 24 hours of receiving the request. Customer shall provide an annual projection of scheduled maintenance to the Company. Customer shall be allowed changes or additions to this projection upon notice to the Company based on the following schedule:

Outage Length
Less than 48 hours
2 days to 30 days
Over 30 days

Required Notice
24 hours
7 days
90 days

- The duration of qualifying scheduled maintenance periods may not exceed a total of eight weeks in any 12 month period.
- 4. If customer does not comply with all terms and conditions for qualifying scheduled maintenance periods during any billing month, all use of Standby Service for the same month will be subject to the Peak Period Standby Energy surcharge. Company may determine partial non-compliance and limit the quantity of Standby Service usage subject to the Peak Period Standby Energy charge provision. Company reserves the right to remove availability of the Scheduled Maintenance Option for any customer upon a determination of significant and multiple occurrences of failure to comply with all associated terms and conditions.
- The use of Standby Service during qualifying scheduled maintenance period will not be included in the determination of Peak Period Standby Energy usage.

(Continued on Sheet No. 5-107)

Date Filed: 05-19-16 By: Christopher B. Clark Effective Date:

President, Northern States Power Company, a Minnesota corporation

Docket No. E002/M-13-315 & E999/CI-15-115 Order Date:

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PHOTOVOLTAIC DEMAND CREDIT RIDER RATE CODE A85 (CLOSED) RATE CODE A86 Section No. 5 4th Revised Sheet No. 125

#### **AVAILABILITY - GENERAL**

Applicable by customer request to demand-metered commercial and industrial customers that use Solar Photovoltaic as a customer-sited generation source with a capacity greater than 40 kW (AC) with a single production meter to serve all or a portion of customer's electric energy requirements. Not available to customer-sited generation that is the subject of another incentive program such as Solar\*Rewards.

### **AVAILABILITY - CLOSED RATE**

Availability of the closed rate is limited to qualifying customer account locations that: 1) are receiving Standby Service Rider tariff service with the Photovoltaic Solar Credit on the date this Rider is originally approved by the Commission, or 2) have enrolled for the Rider before the date the credit rate in this Rider is revised by the Commission. The closed rate will remain fixed for a six year period beginning with the original Commission order date approving this Rider, expiring \_\_\_\_ \_\_, 2024. After expiration of the closed rate, the applicable standard rate will replace the closed rate.

The standard rate will apply to customer account locations that do not qualify for the closed rate. The standard rate may be revised at any time subject to approval by the Commission.

#### **RATE**

Customer Charge per Month \$25.75

Credit per kWh of Peak Period Solar Photovoltaic Generation (A85 - Closed) \$0.07139 Credit per kWh of Peak Period Solar Photovoltaic Generation (A86 - Standard) \$0.07139

### **CREDIT KWH LIMIT**

The maximum kWh applied to the Rider credit per kWh each billing period is the Peak Period maximum 15-minute Solar Photovoltaic kW output for the billing period times 100 hours for billing periods ending in the months of June, July, August or September and 75 hours for billing periods ending in other months.

## **CREDIT LIMIT**

The maximum credit for each billing period is the applicable standard or on-peak billed demand charge from the base tariff associated with this Rider. For Peak-Controlled Service and Peak-Controlled Time of Day Service customers, the maximum credit for each billing period is the billed demand charge for Firm Demand.

## **DEFINITION OF PEAK PERIOD**

Peak period hours are the six hours between 1:00 p.m. and 7 p.m. for all days.

## TERMS AND CONDITIONS OF SERVICE

- 1. Customer will execute an Electric Service Agreement with the Company that will specify:
  - a) The base tariff associated with this Rider, and
  - b) The installed capacity (AC) of customer's Solar Photovoltaic generation.
- 2. Company will install, own, and maintain the metering to measure the electric power and energy supplied by customer generation to allow for proper billing of the customer under this Rider. If, as a result of the customer's construction and installation of their generating facility, it is more practical for the customer to install some or all of the metering equipment required, the customer may be permitted to do so, subject to Company's approval of such equipment.
- 3. Company reserves the right to limit availability of this Rider to customer situations where the Solar Photovoltaic generation used by customer does not significantly affect the monthly peak demand of customer.
- 4. For Solar Photovoltaic generation, this Rider supersedes other Standby Service tariff provisions.

Date Filed: 05-19-16 By: Christopher B. Clark Effective Date:

President, Northern States Power Company, a Minnesota corporation

Docket No. E002/M-13-315 & E999/CI-15-115 Order Date:

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## **CERTIFICATE OF SERVICE**

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

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

Docket No. E999/CI-15-115

Dated this 31st day of January 2018

/s/

Lynnette Sweet Regulatory Administrator

| First Name  | Last Name | Email                                | Company Name               | Address  | Delivery Method    | View Trade Secret | Service List Name      |
|-------------|-----------|--------------------------------------|----------------------------|--|--------------------|-------------------|------------------------|
| Michael     | Allen     | michael.allen@allenergysol<br>ar.com | All Energy Solar           | 721 W 26th st Suite 211  Minneapolis, Minnesota 55405              | Electronic Service | No                | OFF_SL_15-115_Official |
| Christopher | Anderson  | canderson@allete.com                 | Minnesota Power            | 30 W Superior St  Duluth, MN 558022191                             | Electronic Service | No                | OFF_SL_15-115_Official |
| Mara        | Ascheman  | mara.k.ascheman@xcelen<br>ergy.com   | Xcel Energy                | 414 Nicollet Mall FI 5  Minneapolis, MN 55401                      | Electronic Service | No                | OFF_SL_15-115_Official |
| John        | Aune      | johna@bluehorizonsolar.co<br>m       | Blue Horizon Energy        | 171 Cheshire Ln Ste 500  Plymouth, MN 55441                        | Electronic Service | No                | OFF_SL_15-115_Official |
| Kenneth     | Baker     | Ken.Baker@walmart.com                | Wal-Mart Stores, Inc.      | 2001 SE 10th St.  Bentonville, AR 72716-5530                       | Electronic Service | No                | OFF_SL_15-115_Official |
| Wissam      | Balshe    | wissam.balshe@cummins.com            |                            | N/A  | Electronic Service | No                | OFF_SL_15-115_Official |
| Gail        | Baranko   | gail.baranko@xcelenergy.c<br>om      | Xcel Energy                | 414 Nicollet Mall7th Floor  Minneapolis, MN 55401                  | Electronic Service | No                | OFF_SL_15-115_Official |
| Sara        | Bergan    | sebergan@stoel.com                   | Stoel Rives LLP            | 33 South Sixth Street<br>Suite 4200<br>Minneapolis,<br>MN<br>55402 | Electronic Service | No                | OFF_SL_15-115_Official |
| James J.    | Bertrand  | james.bertrand@stinson.co<br>m       | Stinson Leonard Street LLP | 50 S 6th St Ste 2600<br>Minneapolis,<br>MN<br>55402                | Electronic Service | No                | OFF_SL_15-115_Official |
| Amanda      | Bilek     | abilek@gpisd.net                     | Great Plains Institute     | 2801 21st Ave S Ste 220  Minneapolis, MN 55407-1229                | Electronic Service | No                | OFF_SL_15-115_Official |
| Thor        | Bjork     | Thor.S.Bjork@xcelenergy.c om         | Xcel Energy                | 414 Nicollet Mall  Minneapolis,  MN  55401                         | Electronic Service | No                | OFF_SL_15-115_Official |

| First Name     | Last Name          | Email                                 | Company Name                          | Address  | Delivery Method           | View Trade Secret | Service List Name      |
|----------------|--------------------|---------------------------------------|---------------------------------------|--|---------------------------|-------------------|------------------------|
| William        | Black              | bblack@mmua.org                       | MMUA                                  | Suite 400<br>3025 Harbor Lane No<br>Plymouth,<br>MN<br>554475142   | Electronic Service<br>tth | No                | OFF_SL_15-115_Official |
| William A.     | Blazar             | bblazar@mnchamber.com                 | Minnesota Chamber Of<br>Commerce      | Suite 1500<br>400 Robert Street Nor<br>St. Paul,<br>MN<br>55101    | Electronic Service<br>th  | No                | OFF_SL_15-115_Official |
| Jerry          | Boggs              | jerry.boggs@istate.com                |                                       | N/A  | Electronic Service        | No                | OFF_SL_15-115_Official |
| Michael J.     | Bull               | mbull@mncee.org                       | Center for Energy and<br>Environment  | 212 Third Ave N Ste 560  Minneapolis, MN 55401                     | Electronic Service        | No                | OFF_SL_15-115_Official |
| Jessica        | Burdette           | jessica.burdette@state.mn.<br>us      | Department of Commerce                | 85 7th Place East<br>Suite 500<br>St. Paul,<br>MN<br>55101         | Electronic Service        | No                | OFF_SL_15-115_Official |
| Michael        | Burr               | mtburr@microgridinstitute.o           |                                       | N/A  | Electronic Service        | No                | OFF_SL_15-115_Official |
| Ray            | Choquette          | rchoquette@agp.com                    | Ag Processing Inc.                    | 12700 West Dodge Road<br>PO Box 2047<br>Omaha,<br>NE<br>68103-2047 | Electronic Service        | No                | OFF_SL_15-115_Official |
| Steve W.       | Chriss             | Stephen.chriss@walmart.c              | Wal-Mart                              | 2001 SE 10th St.  Bentonville, AR 72716-5530                       | Electronic Service        | No                | OFF_SL_15-115_Official |
| Jennifer       | Christensen        | jchristensen@gpisd.net                | Great Plains Institute                | 2801 21st Ave S<br>Suite 220<br>Minneapolis,<br>MN<br>55407        | Electronic Service        | No                | OFF_SL_15-115_Official |
| City           | Clerk              | sschulte@ci.albertlea.mn.u<br>s       | City of Albert Lea                    | 221 E Clark St  Albert Lea, MN 56007                               | Electronic Service        | No                | OFF_SL_15-115_Official |
| Generic Notice | Commerce Attorneys | commerce.attorneys@ag.st<br>ate.mn.us | Office of the Attorney<br>General-DOC | 445 Minnesota Street Suite<br>1800<br>St. Paul,<br>MN<br>55101     | Electronic Service        | Yes               | OFF_SL_15-115_Official |

| First Name | Last Name    | Email                                    | Company Name                                   | Address   | Delivery Method          | View Trade Secret | Service List Name      |
|------------|--------------|--|--|---|--------------------------|-------------------|------------------------|
| William    | Crider       | William.Crider@target.com                | Target Corporation                             | 33 S 6th St<br>CC-2805<br>Minneapolis,<br>MN<br>55402               | Electronic Service       | No                | OFF_SL_15-115_Officia  |
| Carl       | Cronin       | Regulatory.records@xcele nergy.com       | Xcel Energy                                    | 414 Nicollet Mall FL 7  Minneapolis, MN 554011993                   | Electronic Service       | No                | OFF_SL_15-115_Official |
| Arthur     | Crowell      | Crowell.arthur@yahoo.com                 | A Work of Art Solar                            | 14333 Orchard Rd.  Minnetonka, MN 55345                             | Electronic Service       | No                | OFF_SL_15-115_Official |
| Leigh      | Currie       | Icurrie@mncenter.org                     | Minnesota Center for<br>Environmental Advocacy | 26 E. Exchange St., Suite<br>206<br>St. Paul,<br>Minnesota<br>55101 | Electronic Service       | No                | OFF_SL_15-115_Official |
| James      | Darabi       | james.darabi@solarfarm.co<br>m           | Solar Farm, LLC                                | 2355 Fairview Ave #101  St. Paul,  MN  55113                        | Electronic Service       | No                | OFF_SL_15-115_Official |
| Chris      | Davis        | christopher.davis@state.m<br>n.us        | Department of Commerce                         | Suite 280<br>85 Seventh Place Eas<br>St. Paul,<br>MN<br>551012198   | Electronic Service<br>st | No                | OFF_SL_15-115_Official |
| James      | Denniston    | james.r.denniston@xcelen ergy.com        | Xcel Energy Services, Inc.                     | 414 Nicollet Mall, Fifth<br>Floor<br>Minneapolis,<br>MN<br>55401    | Electronic Service       | No                | OFF_SL_15-115_Official |
| lan        | Dobson       | residential.utilities@ag.stat<br>e.mn.us | Office of the Attorney<br>General-RUD          | 1400 BRM Tower<br>445 Minnesota St<br>St. Paul,<br>MN<br>551012130  | Electronic Service       | Yes               | OFF_SL_15-115_Official |
| John R.    | Dunlop, P.E. | JDunlop@RESMinn.com                      | Renewable Energy<br>Services                   | Suite 300<br>448 Morgan Ave. S.<br>Minneapolis,<br>MN<br>554052030  | Electronic Service       | No                | OFF_SL_15-115_Official |

| First Name | Last Name | Email                               | Company Name           | Address   | Delivery Method    | View Trade Secret | Service List Name      |
|------------|-----------|-------------------------------------|------------------------|---|--------------------|-------------------|------------------------|
| Rebecca    | Eilers    | rebecca.d.eilers@xcelener<br>gy.com | Xcel Energy            | 414 Nicollet Mall - 401 7th<br>Floor                            | Electronic Service | No                | OFF_SL_15-115_Officia  |
|            |           |                                     |                        | Minneapolis,<br>MN<br>55401                                     |                    |                   |                        |
| James C.   | Erickson  | jericksonkbc@gmail.com              | Kelly Bay Consulting   | 17 Quechee St<br>Superior,<br>WI<br>54880-4421                  | Electronic Service | No                | OFF_SL_15-115_Official |
| Rick       | Evans     | Rick.Evans@xcelenergy.co<br>m       | Xcel Energy            | 404 Nicollet Mall  Minneapolis, MN 55401                        | Electronic Service | No                | OFF_SL_15-115_Official |
| 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_15-115_Official |
| Vathan     | Franzen   | nathan@geronimoenergy.c om          | Geronimo Energy        | 7650 Edinborough Way<br>Suite 725<br>Edina,<br>MN<br>55435      | Electronic Service | No                | OFF_SL_15-115_Official |
| Stacey     | Fujii     | sfujii@grenergy.com                 | Great River Energy     | 12300 Elm Creek<br>Boulevard<br>Maple Grove,<br>MN<br>553694718 | Electronic Service | No                | OFF_SL_15-115_Official |
| Lee        | Gabler    | Lee.E.Gabler@xcelenergy.            | Xcel Energy            | 404 Nicollet Mall  Minneapolis, MN 55401                        | Electronic Service | No                | OFF_SL_15-115_Official |
| Mark       | Garofano  | mark.garofano@state.mn.u<br>s       | Department of Commerce | 85 7th Street East St Paul, MN 55101                            | Electronic Service | No                | OFF_SL_15-115_Official |
| Katie      | Gascoigne | KGascoigne@mnpower.co<br>m          | Minnesota Power        | 30 W Superior St  Duluth, MN 55802                              | Electronic Service | No                | OFF_SL_15-115_Official |

| First Name | Last Name  | Email                                  | Company Name                         | Address  | Delivery Method    | View Trade Secret | Service List Name      |
|------------|------------|--|--------------------------------------|--|--------------------|-------------------|------------------------|
| Bruce      | Gerhardson | bgerhardson@otpco.com                  | Otter Tail Power Company             | PO Box 496<br>215 S Cascade St<br>Fergus Falls,<br>MN<br>565380496 | Electronic Service | No                | OFF_SL_15-115_Official |
| Sam        | Gomberg    | sgomberg@ucsusa.org                    | Union of Concerned<br>Scientists     | N/A  | Electronic Service | No                | OFF_SL_15-115_Official |
| Bill       | Grant      | Bill.Grant@state.mn.us                 | Minnesota Department of Commerce     | 85 7th Place East, Suite<br>500<br>St. Paul,<br>MN<br>55101        | Electronic Service | No                | OFF_SL_15-115_Official |
| Alison     | Groebner   | alison.groebner@state.mn.<br>us        | Department of Commerce               | 85 7th Place E Ste 500<br>S. Paul,<br>MN<br>55101                  | Electronic Service | No                | OFF_SL_15-115_Official |
| David      | Grover     | dgrover@itctransco.com                 | ITC Midwest                          | 901 Marquette Avenue<br>Suite 1950<br>Minneapolis,<br>MN<br>55402  | Electronic Service | No                | OFF_SL_15-115_Official |
| Timothy    | Gulden     | info@winonarenewableene<br>rgy.com     | Winona Renewable<br>Energy, LLC      | 1449 Ridgewood Dr<br>Winona,<br>MN<br>55987                        | Electronic Service | No                | OFF_SL_15-115_Official |
| Cliff      | Haefke     | chaefk1@uic.edu                        | University of Illinois at<br>Chicago | 1309 S Halsted  Chicago, IL 60607                                  | Electronic Service | No                | OFF_SL_15-115_Official |
| Tony       | Hainault   | anthony.hainault@co.henn<br>epin.mn.us | Hennepin County DES                  | 701 4th Ave S Ste 700  Minneapolis, MN 55415-1842                  | Electronic Service | No                | OFF_SL_15-115_Official |
| Andrew     | Hall       | ahall@allete.com                       | Minnesota Power                      | 30 W Superior St  Duluth, MN 55802                                 | Electronic Service | No                | OFF_SL_15-115_Official |
| J Drake    | Hamilton   | hamilton@fresh-energy.org              | Fresh Energy                         | 408 St Peter St  Saint Paul, MN 55101                              | Electronic Service | No                | OFF_SL_15-115_Official |

| First Name | Last Name | Email                             | Company Name                      | Address   | Delivery Method         | View Trade Secret | Service List Name      |
|------------|-----------|-----------------------------------|-----------------------------------|---|-------------------------|-------------------|------------------------|
| Sam        | Hanson    | shanson@briggs.com                | Briggs And Morgan, P.A.           | 2200 IDS Center<br>80 South Eighth Stree<br>Minneapolis,<br>MN<br>55402 | Electronic Service<br>t | No                | OFF_SL_15-115_Official |
| Kim        | Havey     | kim.havey@state.mn.us             | Minnesota Department of Commerce  | 85 7th Place East  St. Paul, MN 55101                                   | Electronic Service      | No                | OFF_SL_15-115_Official |
| Jack       | Hays      | jack.hays@westwoodps.co<br>m      | Westwood Professional<br>Services | 7699 Anagram Drive  Eden Prairie, MN 55344                              | Electronic Service      | No                | OFF_SL_15-115_Official |
| Brandon    | Heath     | bheath@misoenergy.org             | MISO Energy                       | 2985 Ames Crossing Rd Eagan, MN 55121                                   | Electronic Service      | No                | OFF_SL_15-115_Official |
| Duane      | Hebert    | duane.hebert@novelenerg<br>y.biz  | Novel Energy Solutions            | 1628 2nd Ave SE<br>Rochester,<br>MN<br>55904                            | Electronic Service      | No                | OFF_SL_15-115_Official |
| Kimberly   | Hellwig   | kimberly.hellwig@stoel.co<br>m    | Stoel Rives LLP                   | 33 South Sixth Street<br>Suite 4200<br>Minneapolis,<br>MN<br>55402      | Electronic Service      | No                | OFF_SL_15-115_Official |
| Annete     | Henkel    | mui@mnutilityinvestors.org        | Minnesota Utility Investors       | 413 Wacouta Street<br>#230<br>St.Paul,<br>MN<br>55101                   | Electronic Service      | No                | OFF_SL_15-115_Official |
| Shane      | Henriksen | shane.henriksen@enbridge<br>.com  | Enbridge Energy Company,<br>Inc.  | 1409 Hammond Ave FL 2<br>Superior,<br>WI<br>54880                       | Electronic Service      | No                | OFF_SL_15-115_Official |
| Holly      | Hinman    | holly.r.hinman@xcelenergy<br>.com | Xcel Energy                       | 414 Nicollet Mall, 7th Floor<br>Minneapolis,<br>MN<br>55401             | Electronic Service      | No                | OFF_SL_15-115_Official |
| Adam       | Hook      | adam.hook@gmail.com               |                                   | N/A   | Electronic Service      | No                | OFF_SL_15-115_Official |

| First Name | Last Name | Email                              | Company Name                            | Address  | Delivery Method              | View Trade Secret | Service List Name      |
|------------|-----------|------------------------------------|---|--|------------------------------|-------------------|------------------------|
| Michael    | Норре     | il23@mtn.org                       | Local Union 23, I.B.E.W.                | 932 Payne Avenue<br>St. Paul,<br>MN<br>55130                           | Electronic Service           | No                | OFF_SL_15-115_Official |
| Jim        | Horan     | Jim@MREA.org                       | Minnesota Rural Electric<br>Association | 11640 73rd Ave N<br>Maple Grove,<br>MN<br>55369                        | Electronic Service           | No                | OFF_SL_15-115_Official |
| David      | Horneck   | david.g.horneck@xcelener<br>gy.com | Xcel Energy                             | 1800 Larimer Street  Denver, CO 80202                                  | Electronic Service           | No                | OFF_SL_15-115_Official |
| Lori       | Hoyum     | lhoyum@mnpower.com                 | Minnesota Power                         | 30 West Superior Street  Duluth, MN 55802                              | Electronic Service           | No                | OFF_SL_15-115_Official |
| Anne       | Hunt      | anne.hunt@ci.stpaul.mn.us          | City of St. Paul                        | 390 City Hall<br>15 West Kellogg Bou<br>Saint Paul,<br>MN<br>55102     | Electronic Service<br>levard | No                | OFF_SL_15-115_Official |
| Steve      | Huso      | steve.huso@xcelenergy.co<br>m      | Xcel Energy                             | G.O. 7th Floor<br>414 Nicollet Mall<br>Minneapolis,<br>MN<br>554011993 | Electronic Service           | No                | OFF_SL_15-115_Official |
| Ralph      | Jacobson  | ralphj@ips-solar.com               |   | 2126 Roblyn Avenue Saint Paul, Minnesota 55104                         | Electronic Service           | No                | OFF_SL_15-115_Official |
| Dwight     | Jelle     | dkjelle@gmail.com                  | Best Power International,<br>LLC        | P.O. 5126<br>Hopkins,<br>MN<br>55343                                   | Electronic Service           | No                | OFF_SL_15-115_Official |
| Alan       | Jenkins   | aj@jenkinsatlaw.com                | Jenkins at Law                          | 2265 Roswell Road<br>Suite 100<br>Marietta,<br>GA<br>30062             | Electronic Service           | No                | OFF_SL_15-115_Official |

| First Name | Last Name | Email                              | Company Name                          | Address   | Delivery Method    | View Trade Secret | Service List Name      |
|------------|-----------|------------------------------------|---------------------------------------|---|--------------------|-------------------|------------------------|
| Linda      | Jensen    | linda.s.jensen@ag.state.m<br>n.us  | Office of the Attorney<br>General-DOC | 1800 BRM Tower 445<br>Minnesota Street<br>St. Paul,<br>MN<br>551012134                  | Electronic Service | Yes               | OFF_SL_15-115_Officia  |
| Cindy      | Jepsen    | ccjepsen@capitolresource<br>mn.com | Capitol Resources                     | Box 254  Marine On St. Croix, MN 55047  | Electronic Service | No                | OFF_SL_15-115_Officia  |
| Richard    | Johnson   | Rick.Johnson@lawmoss.co<br>m       | Moss & Barnett                        | 150 S. 5th Street<br>Suite 1200<br>Minneapolis,<br>MN<br>55402                          | Electronic Service | No                | OFF_SL_15-115_Officia  |
| Cliff      | Kaehler   | cliff.kaehler@novelenergy.<br>biz  | Novel Energy Solutions                | N/A   | Electronic Service | No                | OFF_SL_15-115_Officia  |
| Michael    | Kampmeyer | mkampmeyer@a-e-<br>group.com       | AEG Group, LLC                        | 260 Salem Church Road  Sunfish Lake,  Minnesota 55118                                   | Electronic Service | No                | OFF_SL_15-115_Official |
| Mark J.    | Kaufman   | mkaufman@ibewlocal949.o            | IBEW Local Union 949                  | 12908 Nicollet Avenue<br>South<br>Burnsville,<br>MN<br>55337                            | Electronic Service | No                | OFF_SL_15-115_Official |
| John       | Kearney   | jmkearney@MnSEIA.org               | MnSEIA                                | 2512 33rd Ave S<br>Minneapolis,<br>MN<br>55406  | Electronic Service | No                | OFF_SL_15-115_Officia  |
| Kevin      | Keene     | kevin.keene@cummins.co             |                                       | N/A   | Electronic Service | No                | OFF_SL_15-115_Official |
| Jennifer   | Kefer     | jennifer@dgardiner.com             | Alliance for Industrial<br>Efficiency | David Gardiner &<br>Associates, LLC<br>2609 11th St N<br>Arlington,<br>VA<br>22201-2825 | Electronic Service | No                | OFF_SL_15-115_Official |
| Brad       | Klein     | bklein@elpc.org                    | Environmental Law & Policy Center     | 35 E. Wacker Drive, Suite<br>1600<br>Suite 1600<br>Chicago,<br>IL<br>60601              | Electronic Service | No                | OFF_SL_15-115_Officia  |

| First Name | Last Name | Email                         | Company Name                           | Address  | Delivery Method    | View Trade Secret | Service List Name      |
|------------|-----------|-------------------------------|--|--|--------------------|-------------------|------------------------|
| Kerry      | Klemm     | kerry.r.klemm@xcelenergy.com  | Xcel Energy Services, Inc              | 414 Nicollet Mall  Minneapolis,  MN  55401                           | Electronic Service | No                | OFF_SL_15-115_Official |
| Jack       | Kluempke  | Jack.Kluempke@state.mn.<br>us | Minnesota Department of Commerce       | 85 7th Place East<br>Suite 600<br>St. Paul,<br>MN<br>55101           | Electronic Service | No                | OFF_SL_15-115_Official |
| Thomas     | Koehler   | TGK@IBEW160.org               | Local Union #160, IBEW                 | 2909 Anthony Ln  St Anthony Village, MN 55418-3238                   | Electronic Service | No                | OFF_SL_15-115_Official |
| Jon        | Kramer    | sundialjon@gmail.com          | Sundial Solar                          | 3209 W 76th St<br>Edina,<br>MN<br>55435                              | Electronic Service | No                | OFF_SL_15-115_Official |
| Michael    | Krause    | michaelkrause61@yahoo.c<br>om | Kandiyo Consulting, LLC                | 433 S 7th Street<br>Suite 2025<br>Minneapolis,<br>Minnesota<br>55415 | Electronic Service | No                | OFF_SL_15-115_Official |
| Michael    | Krikava   | mkrikava@briggs.com           | Briggs And Morgan, P.A.                | 2200 IDS Center<br>80 S 8th St<br>Minneapolis,<br>MN<br>55402        | Electronic Service | No                | OFF_SL_15-115_Official |
| Jim        | Krueger   | jkrueger@fmcs.coop            | Freeborn-Mower<br>Cooperative Services | Box 611  Albert Lea, MN 56007  | Electronic Service | No                | OFF_SL_15-115_Official |
| Allen      | Krug      | allen.krug@xcelenergy.co<br>m | Xcel Energy                            | 414 Nicollet Mall-7th fl Minneapolis, MN 55401                       | Electronic Service | No                | OFF_SL_15-115_Official |
| Scott      | Kurtz     | Scott.J.Kurtz@xcelenergy.com  | Xcel Energy                            | 825 Rice Street St. Paul, MN 55117                                   | Electronic Service | No                | OFF_SL_15-115_Official |
| Holly      | Lahd      | holly.lahd@target.com         | Target Corporation                     | 33 South 6th St<br>CC-28662<br>Minneapolis,<br>MN<br>55402           | Electronic Service | No                | OFF_SL_15-115_Official |

| First Name | Last Name   | Email                                | Company Name                       | Address  | Delivery Method    | View Trade Secret | Service List Name      |
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| Douglas    | Larson      | dlarson@dakotaelectric.co<br>m       | Dakota Electric Association        | 4300 220th St W Farmington, MN 55024                                       | Electronic Service | No                | OFF_SL_15-115_Official |
| James D.   | Larson      | james.larson@avantenergy<br>.com     | Avant Energy Services              | 220 S 6th St Ste 1300  Minneapolis, MN 55402                               | Electronic Service | No                | OFF_SL_15-115_Official |
| Amy        | Liberkowski | amy.a.liberkowski@xcelen<br>ergy.com | Xcel Energy                        | 414 Nicollet Mall<br>7th Floor<br>Minneapolis,<br>MN<br>554011993          | Electronic Service | No                | OFF_SL_15-115_Official |
| Carl       | Linvill     | clinvill@raponline.org               | Regulatory Assistance<br>Project   | 50 State Street Suite #3  Montpelier, VT 05602                             | Electronic Service | No                | OFF_SL_15-115_Official |
| Matthew P  | Loftus      | matthew.p.loftus@xcelener<br>gy.com  | Xcel Energy                        | 414 Nicollet Mall FL 5  Minneapolis, MN 55401                              | Electronic Service | No                | OFF_SL_15-115_Official |
| Bob        | Long        | rlong@larkinhoffman.com              | Larkin Hoffman (Silicon<br>Energy) | 1500 Wells Fargo Plaza<br>7900 Xerxes Ave S<br>Bloomington,<br>MN<br>55431 | Electronic Service | No                | OFF_SL_15-115_Official |
| Susan      | Ludwig      | sludwig@mnpower.com                  | Minnesota Power                    | 30 West Superior Street  Duluth, MN 55802                                  | Electronic Service | No                | OFF_SL_15-115_Official |
| Paula      | Maccabee    | Pmaccabee@justchangela<br>w.com      | Just Change Law Offices            | 1961 Selby Ave Saint Paul, MN 55104  | Electronic Service | No                | OFF_SL_15-115_Official |
| Susan      | Mackenzie   | susan.mackenzie@state.m<br>n.us      | Public Utilities Commission        | 121 7th Place E Ste 350  St. Paul,  MN  551012147                          | Electronic Service | No                | OFF_SL_15-115_Official |
| Kavita     | Maini       | kmaini@wi.rr.com                     | KM Energy Consulting LLC           | 961 N Lost Woods Rd Oconomowoc, WI 53066                                   | Electronic Service | No                | OFF_SL_15-115_Official |

| First Name | Last Name | Email                                | Company Name                         | Address   | Delivery Method           | View Trade Secret | Service List Name      |
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| Jerome     | Malmquist | malmq003@umn.edu                     | University of Minnesota              | 319 15th Ave SE<br>400 Donhowe<br>Minneapolis,<br>MN<br>55455                   | Electronic Service        | No                | OFF_SL_15-115_Official |
| Pam        | Marshall  | pam@energycents.org                  | Energy CENTS Coalition               | 823 7th St E<br>St. Paul,<br>MN<br>55106  | Electronic Service        | No                | OFF_SL_15-115_Official |
| Mary       | Martinka  | mary.a.martinka@xcelener<br>gy.com   | Xcel Energy Inc                      | 414 Nicollet Mall<br>7th Floor<br>Minneapolis,<br>MN<br>55401                   | Electronic Service        | No                | OFF_SL_15-115_Official |
| Natalie    | McIntire  | natalie.mcintire@gmail.com           | Wind on the Wires                    | 570 Asbury St Ste 201  Saint Paul,  MN  55104-1850                              | Electronic Service        | No                | OFF_SL_15-115_Official |
| Graeme     | Miller    | gmille7@uic.edu                      | University of Illinois at<br>Chicago | 1309 S Halsted Chicago, IL 60607  | Electronic Service        | No                | OFF_SL_15-115_Official |
| Stacy      | Miller    | stacy.miller@state.mn.us             | Department of Commerce               | State Energy Office<br>85 7th Place East, Su<br>500<br>St. Paul,<br>MN<br>55101 | Electronic Service<br>ite | No                | OFF_SL_15-115_Official |
| Herbert    | Minke     | hminke@allete.com                    | Minnesota Power                      | 30 W Superior St  Duluth, MN 55802  | Electronic Service        | No                | OFF_SL_15-115_Official |
| David      | Moeller   | dmoeller@allete.com                  | Minnesota Power                      | 30 W Superior St  Duluth, MN 558022093  | Electronic Service        | No                | OFF_SL_15-115_Official |
| Curt       | Monteith  | curtis.g.monteith@xcelener<br>gy.com | Xcel Energy                          | 414 Nicollet Mall  Minneapolis, MN 55401  | Electronic Service        | No                | OFF_SL_15-115_Official |
| Andrew     | Moratzka  | andrew.moratzka@stoel.co<br>m        | Stoel Rives LLP                      | 33 South Sixth St Ste 4200  Minneapolis, MN 55402                               | Electronic Service        | No                | OFF_SL_15-115_Official |

| First Name | Last Name | Email                                | Company Name                          | Address  | Delivery Method    | View Trade Secret | Service List Name      |
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| Martin     | Morud     | mmorud@trunorthsolar.co<br>m         | Tru North Solar                       | 5115 45th Ave S  Minneapolis, MN 55417                                     | Electronic Service | No                | OFF_SL_15-115_Official |
| Carl       | Nelson    | cnelson@mncee.org                    | Center for Energy and<br>Environment  | 212 3rd Ave N Ste 560  Minneapolis, MN 55401                               | Electronic Service | No                | OFF_SL_15-115_Official |
| David      | Niles     | david.niles@avantenergy.c<br>om      | Minnesota Municipal Power<br>Agency   | 220 South Sixth Street<br>Suite 1300<br>Minneapolis,<br>Minnesota<br>55402 | Electronic Service | No                | OFF_SL_15-115_Official |
| Will       | Nissen    | nissen@fresh-energy.org              | Fresh Energy                          | 408 St. Peter Street Ste<br>220<br>Saint Paul,<br>MN<br>55102              | Electronic Service | No                | OFF_SL_15-115_Official |
| Michael    | Noble     | noble@fresh-energy.org               | Fresh Energy                          | Hamm Bldg., Suite 220<br>408 St. Peter Street<br>St. Paul,<br>MN<br>55102  | Electronic Service | No                | OFF_SL_15-115_Official |
| Rolf       | Nordstrom | rnordstrom@gpisd.net                 | Great Plains Institute                | 2801 21ST AVE S STE 220  Minneapolis, MN 55407-1229                        | Electronic Service | No                | OFF_SL_15-115_Official |
| Samantha   | Norris    | samanthanorris@alliantene<br>rgy.com | Interstate Power and Light<br>Company | 200 1st Street SE PO Box<br>351<br>Cedar Rapids,<br>IA<br>524060351        | Electronic Service | No                | OFF_SL_15-115_Official |
| Kate       | O'Connell | kate.oconnell@state.mn.us            | Department of Commerce                | Suite 50085 Seventh Place<br>East St. Paul, MN 551012198                   | Electronic Service | No                | OFF_SL_15-115_Official |
| Greg       | Padden    | gpadden@grenergy.com                 | Great River Energu                    | 12300 Elm Creek Blvd<br>Maple Grove,<br>MN<br>55369                        | Electronic Service | No                | OFF_SL_15-115_Official |

| First Name | Last Name | Email                                 | Company Name                    | Address   | Delivery Method             | View Trade Secret | Service List Name      |
|------------|-----------|---------------------------------------|---------------------------------|---|-----------------------------|-------------------|------------------------|
| Nick       | Paluck    | nick.paluck@xcelenergy.co<br>m        | Xcel Energy                     | 7th Floor<br>414 Nicollet Mall<br>Minneapolis,<br>MN<br>554011993       | Electronic Service          | No                | OFF_SL_15-115_Official |
| James      | Pearson   | james.g.pearson@xcelener<br>gy.com    | Xcel Energy                     | 414 Nicollet Mall  Minneapolis, MN 55401                                | Electronic Service          | No                | OFF_SL_15-115_Official |
| Susan      | Peirce    | Susan.Peirce@state.mn.us              | Department of Commerce          | 85 Seventh Place East St. Paul, MN 55101                                | Electronic Service          | No                | OFF_SL_15-115_Official |
| John       | Pendray   | john.pendray@cummins.co               |                                 | N/A   | Electronic Service          | No                | OFF_SL_15-115_Official |
| Jessica    | Peterson  | jessica.k.peterson@xcelen<br>ergy.com | Xcel Energy                     | 414 Nicollet Mall<br>GO 6<br>Minneapolis,<br>MN<br>55401                | Electronic Service          | No                | OFF_SL_15-115_Official |
| Leah       | Peterson  | lpeterson11@gmail.com                 |                                 | N/A   | Electronic Service          | No                | OFF_SL_15-115_Official |
| Donna      | Pickard   | dpickardgsss@gmail.com                | Genie Solar Support<br>Services | 1215 Lilac Lane Excelsior, MN 55331                                     | Electronic Service          | No                | OFF_SL_15-115_Official |
| Jerry      | Pittman   | jerry.pittman@charter.net             |                                 | N/A   | Electronic Service          | No                | OFF_SL_15-115_Official |
| Marcia     | Podratz   | mpodratz@mnpower.com                  | Minnesota Power                 | 30 W Superior S  Duluth, MN 55802                                       | Electronic Service          | No                | OFF_SL_15-115_Official |
| David G.   | Prazak    | dprazak@otpco.com                     | Otter Tail Power Company        | P.O. Box 496<br>215 South Cascade S<br>Fergus Falls,<br>MN<br>565380496 | Electronic Service<br>treet | No                | OFF_SL_15-115_Official |
| Gayle      | Prest     | gayle.prest@minneapolism<br>n.gov     | City of Mpls Sustainability     | 350 South 5th St, #315  Minneapolis, MN 55415                           | Electronic Service          | No                | OFF_SL_15-115_Official |
| Chris      | Psihos    | Chris.psihos@idealenergie<br>s.com    | Ideal Energies, LLC             | 5810 Nicollet Ave<br>Minneapolis,<br>MN<br>55419                        | Electronic Service          | No                | OFF_SL_15-115_Official |

| First Name | Last Name      | Email                                    | Company Name                                 | Address  | Delivery Method    | View Trade Secret | Service List Name      |
|------------|----------------|--|--|--|--------------------|-------------------|------------------------|
| Doug       | Renier         | doug.renier@state.mn.us                  | Department of Commerce                       | 85 7th Place E Ste 500  St. Paul,  MN  55101                         | Electronic Service | No                | OFF_SL_15-115_Official |
| Richard    | Savelkoul      | rsavelkoul@martinsquires.c<br>om         | Martin & Squires, P.A.                       | 332 Minnesota Street Ste<br>W2750<br>St. Paul,<br>MN<br>55101        | Electronic Service | No                | OFF_SL_15-115_Official |
| Thomas     | Scharff        | thomas.scharff@versoco.c<br>om           | Verso Corp                                   | 600 High Street  Wisconsin Rapids, WI 54495                          | Electronic Service | No                | OFF_SL_15-115_Official |
| Larry L.   | Schedin        | Larry@LLSResources.com                   | LLS Resources, LLC                           | 332 Minnesota St, Ste<br>W1390<br>St. Paul,<br>MN<br>55101           | Electronic Service | No                | OFF_SL_15-115_Official |
| Kevin      | Schwain        | Kevin.D.Schwain@xcelene rgy.com          | Xcel Energy                                  | 404 Nicollet Mall  Minneapolis, MN 55401                             | Electronic Service | No                | OFF_SL_15-115_Official |
| Janet      | Shaddix Elling | jshaddix@janetshaddix.co<br>m            | Shaddix And Associates                       | 7400 Lyndale Ave S Ste<br>190<br>Richfield,<br>MN<br>55423           | Electronic Service | Yes               | OFF_SL_15-115_Official |
| David      | Shaffer        | shaff081@gmail.com                       | Minnesota Solar Energy<br>Industries Project | 1005 Fairmount Ave Saint Paul, MN 55105                              | Electronic Service | No                | OFF_SL_15-115_Official |
| Patricia   | Sharkey        | psharkey@environmentalla<br>wcounsel.com | Midwest Cogeneration<br>Association.         | 180 N. LaSalle Street<br>Suite 3700<br>Chicago,<br>Illinois<br>60601 | Electronic Service | No                | OFF_SL_15-115_Official |
| Gary       | Shaver         | gshaver@silicon-<br>energy.com           | Silicon Energy                               | 3506 124th St NE  Marysville, WA 98271                               | Electronic Service | No                | OFF_SL_15-115_Official |

| First Name | Last Name  | Email                            | Company Name                   | Address   | Delivery Method    | View Trade Secret | Service List Name      |
|------------|------------|----------------------------------|--------------------------------|---|--------------------|-------------------|------------------------|
| Erin       | Shea       | eshea@silicon-energy.com         | Silicon Energy                 | PO Box 376<br>8787 Silicon Way<br>Mt Iron,<br>MN<br>55768                   | Electronic Service | No                | OFF_SL_15-115_Official |
| Doug       | Shoemaker  | dougs@mnRenewables.or<br>g       | MRES                           | 2928 5th Ave S<br>Minneapolis,<br>MN<br>55408                               | Electronic Service | No                | OFF_SL_15-115_Official |
| Sara       | Smith      | sara.smith@metc.state.mn.        | Metropolitan Council           | 390 Robert St N St. Paul, MN 55101-1805                                     | Electronic Service | No                | OFF_SL_15-115_Official |
| Ken        | Smith      | ken.smith@districtenergy.com     | District Energy St. Paul Inc.  | 76 W Kellogg Blvd<br>St. Paul,<br>MN<br>55102                               | Electronic Service | No                | OFF_SL_15-115_Official |
| Byron E.   | Starns     | byron.starns@stinson.com         | Stinson Leonard Street LLP     | 50 S 6th St Ste 2600<br>Minneapolis,<br>MN<br>55402                         | Electronic Service | No                | OFF_SL_15-115_Official |
| James M.   | Strommen   | jstrommen@kennedy-<br>graven.com | Kennedy & Graven,<br>Chartered | 470 U.S. Bank Plaza<br>200 South Sixth Stree<br>Minneapolis,<br>MN<br>55402 | Electronic Service | No                | OFF_SL_15-115_Official |
| Eric       | Swanson    | eswanson@winthrop.com            | Winthrop & Weinstine           | 225 S 6th St Ste 3500<br>Capella Tower<br>Minneapolis,<br>MN<br>554024629   | Electronic Service | No                | OFF_SL_15-115_Official |
| Craig      | Tarr, PE   | ctarr@energyconcepts.us          | Energy Concepts                | 2349 Willis Niller Dr<br>Hudson,<br>WI<br>54016                             | Electronic Service | No                | OFF_SL_15-115_Official |
| Leisa      | Thompson   | N/A                              | Metropolitan Council           | 390 Robert St N Saint Paul, MN 55101-1805                                   | Paper Service      | No                | OFF_SL_15-115_Official |
| Stuart     | Tommerdahl | stommerdahl@otpco.com            | Otter Tail Power Company       | 215 S Cascade St<br>PO Box 496<br>Fergus Falls,<br>MN<br>56537              | Electronic Service | No                | OFF_SL_15-115_Official |

| First Name | Last Name | Email                               | Company Name                              | Address  | Delivery Method    | View Trade Secret | Service List Name      |
|------------|-----------|-------------------------------------|---|--|--------------------|-------------------|------------------------|
| Daniel     | Tonder    | d.tonder@mnpower.com                | Minnesota Power                           | PO Box 60<br>Little Falls,<br>MN<br>56345  | Electronic Service | No                | OFF_SL_15-115_Official |
| Lise       | Trudeau   | lise.trudeau@state.mn.us            | Department of Commerce                    | 85 7th Place East<br>Suite 500<br>Saint Paul,<br>MN<br>55101                         | Electronic Service | No                | OFF_SL_15-115_Official |
| Karen      | Turnboom  | karen.turnboom@versoco.c<br>om      | Verso Corporation                         | 100 Central Avenue  Duluth, MN 55807   | Electronic Service | No                | OFF_SL_15-115_Official |
| Erick      | Van Meter | evanmete@umn.edu                    | University of Minnesota                   | N/A  | Electronic Service | No                | OFF_SL_15-115_Official |
| Lisa       | Veith     | lisa.veith@ci.stpaul.mn.us          | City of St. Paul                          | 400 City Hall and<br>Courthouse<br>15 West Kellogg Blvd.<br>St. Paul,<br>MN<br>55102 | Electronic Service | No                | OFF_SL_15-115_Official |
| Kevin      | Walli     | kwalli@fryberger.com                | Fryberger, Buchanan,<br>Smith & Frederick | 380 St. Peter St Ste 710  St. Paul, MN 55102   | Electronic Service | No                | OFF_SL_15-115_Official |
| Elizabeth  | Wefel     | eawefel@flaherty-<br>hood.com       | Missouri River Energy<br>Services         | 3724 W Avera Drive<br>PO Box 88920<br>Sioux Falls,<br>SD<br>57109-8920               | Electronic Service | No                | OFF_SL_15-115_Official |
| Scott M.   | Wilensky  | scott.wilensky@xcelenergy.com       | Xcel Energy                               | 7th Floor<br>414 Nicollet Mall<br>Minneapolis,<br>MN<br>554011993                    | Electronic Service | No                | OFF_SL_15-115_Official |
| Cam        | Winton    | cwinton@mnchamber.com               | Minnesota Chamber of<br>Commerce          | 400 Robert Street North<br>Suite 1500<br>St. Paul,<br>Minnesota<br>55101             | Electronic Service | No                | OFF_SL_15-115_Official |
| Steven     | Wishart   | steven.w.wishart@xcelener<br>gy.com | Xcel Energy                               | 7th Floor<br>414 Nicollet Mall<br>Minneapolis,<br>MN<br>554011993                    | Electronic Service | No                | OFF_SL_15-115_Official |

| First Name | Last Name | Email                             | Company Name                          | Address   | Delivery Method    | View Trade Secret | Service List Name      |
|------------|-----------|-----------------------------------|---------------------------------------|---|--------------------|-------------------|------------------------|
| Robyn      | Woeste    | robynwoeste@alliantenerg<br>y.com | Interstate Power and Light<br>Company | 200 First St SE  Cedar Rapids, IA 52401                         | Electronic Service | No                | OFF_SL_15-115_Official |
| Daniel P   | Wolf      | dan.wolf@state.mn.us              | Public Utilities Commission           | 121 7th Place East<br>Suite 350<br>St. Paul,<br>MN<br>551012147 | Electronic Service | Yes               | OFF_SL_15-115_Official |
| Adam       | Zoet      | adam.zoet@state.mn.us             | Department of Commerce                | 85 7th Place E Ste 500<br>St. Paul,<br>MN<br>55101              | Electronic Service | No                | OFF_SL_15-115_Official |