



414 Nicollet Mall  
Minneapolis, MN 55401

October 1, 2013

—Via Electronic Filing—

Burl W. Haar  
Executive Secretary  
Minnesota Public Utilities Commission  
121 7<sup>th</sup> Place East, Suite 350  
St. Paul, MN 55101

RE: RATE FOR LARGE SOLAR PHOTOVOLTAIC INSTALLATIONS  
DOCKET NO. E002/CI-13-315

Dear Dr. Haar:

Northern States Power Company, doing business as Xcel Energy, submits the attached petition to extend the interim solar Standby Service capacity credit of \$5.15 per kW per month for Large Solar Photovoltaic installations until the Commission has made a determination on the Department's Value of Solar methodology, which is expected in spring 2014. The Commission's May 13, 2013 Order in the current docket was issued prior to the passage of legislation establishing the timeline to develop a value of solar methodology. Since the capacity value of solar will be addressed in the Department's methodology, and is related to our calculation of a Large Photovoltaic rate, we believe a final rate proposal would be premature at this time.

The revised Effective Load Carrying Capability (ELCC) study that is necessary to support a final Large Solar Photovoltaic rate is not yet complete. We shared a preliminary version of the ELCC study on August 14, 2013, and since that time we have incorporated comments and suggestions received from stakeholders through the comment process and stakeholder meetings. We require additional time to adequately reflect these comments and vet the final model results. We propose to submit the final study by October 31, 2013.

Pursuant to Minn. Stat. § 216B.17, Xcel Energy has electronically filed this document with the Minnesota Public Utilities Commission, the Office of the Attorney General and the Department of Commerce. Copies of the Summary

Dr. Burl W. Haar  
Page 2 of 2  
October 1, 2013

of Filing have been served on parties listed on the attached service lists. Please contact me at [amy.a.liberkowski@xcelenergy.com](mailto:amy.a.liberkowski@xcelenergy.com) or 612-330-6613 if you have any questions regarding this filing.

Sincerely,

/s/

AMY LIBERKOWSKI  
MANAGER  
REGULATORY ANALYSIS

Enclosure  
c: Service List

STATE OF MINNESOTA  
BEFORE THE  
MINNESOTA PUBLIC UTILITIES COMMISSION

Beverly Jones Heydinger	Chair
David Boyd	Commissioner
Nancy Lange	Commissioner
J. Dennis O'Brien	Commissioner
Betsy Wergin	Commissioner

IN THE MATTER OF THE PETITION OF  
NORTHERN STATES POWER COMPANY  
FOR APPROVAL OF A RATE FOR LARGE  
SOLAR PHOTOVOLTAIC  
INSTALLATIONS

DOCKET No. E002/M-13-315

**PETITION**

**OVERVIEW**

Northern States Power Company, doing business as Xcel Energy, submits to the Minnesota Public Utilities Commission this Petition for approval to continue the interim solar Standby Service capacity credit of \$5.15 per kW/month for Large Solar Photovoltaic installations. We propose to revisit the credit once the Commission has approved a Value of Solar (VOS) methodology. In accordance with recent legislative changes, the Department must submit the methodology by January 31, 2014 and the Commission has 60 days to make its determination on the methodology. The VOS methodology is currently being developed by the Department with input from the Company and other stakeholders.

We respectfully request Commission approval of continuation of the current interim solar Standby Service capacity credit, which will provide compensation to large solar customers for the capacity value of their solar installations while the VOS methodology is developed and evaluated.

**I. SUMMARY OF FILING**

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

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

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

## **III. GENERAL FILING INFORMATION**

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

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

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

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

James Denniston  
Assistant General Counsel  
Xcel Energy  
414 Nicollet Mall, 5<sup>th</sup> Floor  
Minneapolis, MN 55401  
(612) 215-4656

### **C. Date of Filing**

The date of this filing is October 1, 2013. The proposed interim solar Standby Service capacity credit will be effective upon Commission approval.

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

Because no determination of Xcel Energy's general revenue requirement is necessary, this filing falls within the definition of a miscellaneous tariff filing under Min. R. 7829.0100, subp. 11. Pursuant to Minn. R. 7829.1400, subps. 1 and 4, initial comments on a miscellaneous tariff filing are due within 30 days of

filing, and replies are due 10 days from expiration of the original comment period.

**E. Utility Employee Responsible for Filing**

Amy Liberkowski  
Manager, Regulatory Analysis  
Xcel Energy  
414 Nicollet Mall, 7th Floor  
Minneapolis, MN 55401  
(612) 330-6613

**IV. MISCELLANEOUS INFORMATION**

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

James Denniston  
Assistant General Counsel  
Xcel Energy  
414 Nicollet Mall, 5<sup>th</sup> floor  
Minneapolis, MN 55401

[james.r.denniston@xcelenergy.com](mailto:james.r.denniston@xcelenergy.com)

SaGonna Thompson  
Records Analyst  
Xcel Energy  
414 Nicollet Mall, 7<sup>th</sup> Floor  
Minneapolis, MN 55401

[regulatory.records@xcelenergy.com](mailto:regulatory.records@xcelenergy.com)

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

**V. DESCRIPTION AND PURPOSE OF FILING**

**A. Background**

As part of the Settlement Agreement in our 2010 general electric rate case (Docket No. E002/GR-10-971), the Company agreed to study the load profile of larger solar generation facilities. The Commission's May 14, 2012 FINDINGS OF FACT, CONCLUSIONS AND ORDER in the rate case docket required the study results to be filed with the Commission and shared with the Department of Commerce. The Company filed public and non-public versions of the Solar Load Profile Study on August 24, 2012. The Company resubmitted the study on September 14, 2012 with all previously redacted information made public.

The Commission's May 13, 2013 ORDER SETTING INTERIM RATE AND ESTABLISHING NEW SOLAR RATE DOCKET approved the Company's solar load profile study as satisfying the requirements of the May 14 rate case Order and required the Company to implement an interim solar Standby Service capacity credit of \$5.15 per kW/ month beginning with bills issued on or after June 1, 2013. The Order also required the Company to 1) complete an Effective Load Carrying Capability (ELCC) study and file the preliminary results on May 1, and 2) meet with stakeholders to discuss the results and possible revisions. The Company convened stakeholders on June 11 to review the results and provided a written update on July 1, as required by the Order. A subsequent stakeholder meeting on August 14 reviewed the changes being made to the ELCC analysis to reflect stakeholder comments.

Related to this docket, on July 31, 2013 in Docket No. E002/M-13-642, the Company filed for approval of proposed tariff modifications necessary to provisionally implement certain requirements of the Omnibus Energy Bill, as represented in amendments to Minn. Stat. § 21B.164. Among the changes is the removal of mandatory standby service for systems up to 100 kW. However, we proposed that customers with systems less than 100 kW have the ability to opt-in to Standby Service, as the interim Standby Service solar capacity credit may result in lower bills if those customers take Standby Service. That matter is currently pending.

## **B. Purpose of Filing**

In accordance with Order Point No. 8 of the Commission's May 13 Order, we are filing a Large Solar Photovoltaic rate proposal that addresses the interim solar Standby Service capacity credit. In this Petition, we seek Commission approval to continue an interim solar Standby Service capacity credit of \$5.15 per kW/ month. The existing Tariff Sheet No. 101, revision 12, is provided as Attachment A.

## **C. Updated ELCC Results**

An ELCC analysis is performed using the Prosym dispatch simulation model to estimate the contribution of intermittent resources, such as solar and wind, to meet our customers' peak demand. The Midwest Independent System Operator (MISO) has used the ELCC methodology to set the accredited capacity for wind for several years and the methodology is generally accepted as

the industry standard. As a result of stakeholder comments on our preliminary ELCC study, we agreed to modify and expand the analysis to reflect their suggestions. These suggestions included the following:

- Use of actual hourly load from 2008, 2009, and 2010;
- Use of actual hourly solar radiation data from the same years to accurately correlate load and PV generation;
- Evaluation of multiple panel orientations to evaluate the impact on contribution to peak load; and
- Collection of solar data from multiple sites around the Xcel Energy service territory to evaluate the impact of geographic diversification.

We have completed collection of the load and solar radiation data and have begun model simulations to update our ELCC values. Final ELCC results are expected to be available soon and we plan to provide an update to our May 1<sup>st</sup> ELCC study by October 31, 2013.

**D. Rate Analysis**

The Commission’s May 13, 2013 Order in the current docket was issued prior to the passage of legislation establishing the timeline to develop a VOS methodology. Since the capacity value of solar will be addressed in the Department’s methodology, and is related to our calculation of a Large Photovoltaic rate, we believe a final rate proposal would be premature at this time.

In addition, without the revised final ELCC study, we are not able incorporate the results into the calculation of a final rate. The preliminary May 1<sup>st</sup> ELCC, which does not reflect the additional data and suggestions from stakeholders that we are now incorporating into the final ELCC, resulted in the following values:

May ELCC Results	ELCC Relative to Maximum AC Output	ELCC Relative to Maximum DC Output*
Fixed Panel PV	42.9%	36.5%
1-Axis Tracking PV	48.1%	40.9%

\* Assumes an inverter efficiency of 85%.

When the preliminary ELCC values are inserted into the four capacity credit methodologies proposed by parties, the result is a capacity credit range of \$2.14

to \$4.56 for fixed panel systems and \$2.40 to \$5.11 for a one-axis tracking system as shown below. Therefore, in this instance, since the \$5.15 interim credit is near the upper-end of the respective capacity credit ranges, we believe it to be a reasonable to continue to use this figure on an interim basis while the VOS methodology is in the development and approval phase.

### Capacity Credit Calculation Results

	Original Position	Preliminary - August 14, 2013			
		Fixed Panel		1-Axis	
		ELCC	MISO	ELCC	MISO
		42.9%	45.4%	48.1%	52.3%
Solar Rate Reform Group	\$8.14	\$4.37	\$4.62	\$4.89	\$5.32
Department of Commerce	\$7.44	\$4.56	\$4.83	\$5.11	\$5.56
Xcel Energy (Gen. Only - Low End)	\$2.14	\$2.14	\$2.27	\$2.40	\$2.61
Xcel Energy (Gen. + Trans.- High End)	\$3.93	\$3.22	\$3.41	\$3.61	\$3.93

Additionally, stakeholders have raised questions regarding the applicability of the photovoltaic solar credit during the grace period months when the Standby Service capacity charges are not applied to customer bills, and whether the credit should be based on the maximum kW of the solar facility or the billed kW used for the Standby Service capacity charges. The Company will work with stakeholders on these two issues to determine if a resolution can be reached prior to filing a final rate proposal.

### E. Next Steps

As previously mentioned, the Department is currently developing the VOS methodology. In assessing the VOS, the Department must account for “the value of energy and its delivery, generation capacity, transmission capacity, transmission and distribution line losses, and environmental value.”<sup>1</sup> In addition, the Department “may, based on known and measurable evidence of the cost or benefit of solar operation to the utility, incorporate other values into the methodology, including credit for locally manufactured or assembled energy systems, systems installed at high-value locations on the distribution grid, and other factors.”<sup>2</sup> The Department is required by January 31, 2014 to establish the VOS methodology and the Commission has 60 days to take action on the proposal.

<sup>1</sup> Minn. Stat § 216B.164, Subd. 10

<sup>2</sup> *Id.*



Because the Department and stakeholders will be evaluating the capacity value of solar as part of the VOS development, we propose to revisit the solar Standby Service capacity credit upon Commission approval of a methodology.

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

There is no increase in Xcel Energy's revenue as a result of continued implementation of the solar Standby Service capacity credit.

### **CONCLUSION**

Xcel Energy respectfully requests that the Commission approve continuation of the existing solar Standby Service capacity credit of \$5.15 per kW/ month. The Company proposes to revisit the capacity credit upon Commission approval of a Value of Solar methodology.

Dated: October 1, 2013

Northern States Power Company

Respectfully submitted by:

/s/

AMY LIBERKOWSKI  
MANAGER  
REGULATORY ANALYSIS

STATE OF MINNESOTA  
BEFORE THE  
MINNESOTA PUBLIC UTILITIES COMMISSION

Beverly Jones Heydinger  
David Boyd  
Nancy Lange  
J. Dennis O'Brien  
Betsy Wergin

Chair  
Commissioner  
Commissioner  
Commissioner  
Commissioner

IN THE MATTER OF THE PETITION OF  
NORTHERN STATES POWER COMPANY  
FOR APPROVAL OF A RATE FOR LARGE  
SOLAR PHOTOVOLTAIC INSTALLATIONS

DOCKET No. E002/M-13-315

**PETITION**

**SUMMARY OF FILING**

Please take notice that on October 1, 2013, Northern States Power Company, doing business as Xcel Energy, filed with the Minnesota Public Utilities Commission a Petition for approval of continuation of the existing interim solar Standby Service capacity credit of \$5.15 per kW/ month. The Company proposes to revisit the capacity credit upon Commission approval of a Value of Solar methodology.

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

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

**STANDBY SERVICE RIDER**

Section No. 5  
12th Revised Sheet No. 101

**AVAILABILITY**

Applicable to customers that use an alternative generation source with a capacity greater than 60 kW, where the alternative 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 alternative generation is either partly or wholly unavailable.

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 Standby</u>		Non-Firm
	<u>Unscheduled Maintenance</u>	<u>Scheduled Maintenance</u>	<u>Standby</u>
Customer Charge per Month	\$24.61	\$24.61	\$24.61
Demand Charge per Month per kW of Contracted Standby Capacity			
Secondary Voltage Service	\$3.00	\$2.90	\$2.10
Primary Voltage Service	\$2.15	\$2.05	\$1.25
Transmission Transformed Voltage Service	\$1.50	\$1.40	\$0.60
Transmission Voltage Service	\$0.90	\$0.80	\$0.00
Hours per kW of Contracted Standby Capacity - Annual Grace	964	964	0
Period Use of Unscheduled Standby, Exemption from the Demand Charge Component of the "Usage Rates" below.			

**USAGE RATES**

Demand Charge per kW of Standby Capacity Used. 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.

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

**INTERIM 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 be applied to the applicable Demand Charge of the base tariff for the demand component of the Usage Rates.

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:	05-30-13	By: David M. Sparby	Effective Date:	06-01-13
		President and CEO of Northern States Power Company, a Minnesota corporation		
Docket No.	E002/GR-10-971, E002/M-10-1278 & E002/CI-13-315		Order Date:	05-13-13

## CERTIFICATE OF SERVICE

I, SaGonna Thompson, hereby certify that I have this day served copies of the foregoing document or a summary thereof on the attached lists of persons:

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

xx via electronic filing

**DOCKET No. E002/CI-13-315**

Dated this 1<sup>st</sup> day of October, 2013

/s/

---

SaGonna Thompson

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Michael	Allen	michael.allen@allenergysolar.com	All Energy Solar	721 W 26th st Suite 211  Minneapolis, Minnesota 55405	Electronic Service	No	SPL_SL_13-315_Interested Parties
Julia	Anderson	Julia.Anderson@ag.state.mn.us	Office of the Attorney General-DOC	1800 BRM Tower 445 Minnesota St St. Paul, MN 551012134	Electronic Service	Yes	SPL_SL_13-315_Interested Parties
John	Aune	johna@bluehorizonsolar.com	Blue Horizon Energy	7246 Washington Ave S  Eden Prairie, MN 55344	Paper Service	No	SPL_SL_13-315_Interested Parties
Gail	Baranko	gail.baranko@xcelenergy.com	Xcel Energy	414 Nicollet Mall7th Floor  Minneapolis, MN 55401	Electronic Service	No	SPL_SL_13-315_Interested Parties
William A.	Blazar	bblazar@mnchamber.com	Minnesota Chamber Of Commerce	Suite 1500 400 Robert Street North St. Paul, MN 55101	Electronic Service	No	SPL_SL_13-315_Interested Parties
Joel	Cannon	jcannon@tenksolar.com	Tenk Solar, Inc.	9549 Penn Avenue S  Bloomington, MN 55431	Electronic Service	No	SPL_SL_13-315_Interested Parties
John J.	Carroll	jcarroll@newportpartners.com	Newport Partners, LLC	9 Cushing, Suite 200  Irvine, California 92618	Electronic Service	No	SPL_SL_13-315_Interested Parties
Aakash	Chandarana	Aakash.Chandara@xcelenergy.com	Xcel Energy	414 Nicollet Maill 5th Floor Minneapolis, MN 55401	Electronic Service	No	SPL_SL_13-315_Interested Parties
Steve W.	Chriss	Stephen.chriss@walmart.com	Wal-Mart	2001 Southeast 10th St.  Bentonville, AZ 72716-5530	Paper Service	No	SPL_SL_13-315_Interested Parties
Ian	Dobson	ian.dobson@ag.state.mn.us	Office of the Attorney General-RUD	Antitrust and Utilities Division 445 Minnesota Street, BRM Tower St. Paul, MN 55101	Electronic Service 1400	Yes	SPL_SL_13-315_Interested Parties

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Rebecca	Eilers	rebecca.d.eilers@xcelenergy.com	Xcel Energy	414 Nicollet Mall, 7th Floor  Minneapolis, MN 55401	Electronic Service	No	SPL_SL_13-315_Interested Parties
Sharon	Ferguson	sharon.ferguson@state.mn.us	Department of Commerce	85 7th Place E Ste 500  Saint Paul, MN 551012198	Electronic Service	No	SPL_SL_13-315_Interested Parties
Benjamin	Gerber	bgerber@mnychamber.com	Minnesota Chamber of Commerce	400 Robert Street North Suite 1500 St. Paul, Minnesota 55101	Electronic Service	No	SPL_SL_13-315_Interested Parties
Elizabeth	Goodpaster	bgoodpaster@mncenter.org	MN Center for Environmental Advocacy	Suite 206 26 East Exchange Street St. Paul, MN 551011667	Electronic Service	No	SPL_SL_13-315_Interested Parties
Lloyd	Grooms	lgrooms@winthrop.com	Winthrop and Weinstine	Suite 3500 225 South Sixth Street Minneapolis, MN 554024629	Electronic Service	No	SPL_SL_13-315_Interested Parties
Burl W.	Haar	burl.haar@state.mn.us	Public Utilities Commission	Suite 350 121 7th Place East St. Paul, MN 551012147	Electronic Service	Yes	SPL_SL_13-315_Interested Parties
Sam	Hanson	shanson@briggs.com	Briggs and Morgan, PA	2200 IDS Center 80 South Eighth Street Minneapolis, MN 55402	Electronic Service	No	SPL_SL_13-315_Interested Parties
Jack	Hays	jack.hays@westwoodps.com	Westwood Professional Services	7699 Anagram Drive  Eden Prairie, MN 55344	Electronic Service	No	SPL_SL_13-315_Interested Parties
Jan	Hubbard	Jan@AppliedEnergyInnovations.org	Applied Energy Innovations, LLC	4000 Minnehaha Avenue South  Minneapolis, MN 55406	Paper Service	No	SPL_SL_13-315_Interested Parties
Alan	Jenkins	aj@jenkinsatlaw.com	Jenkins at Law	2265 Roswell Road Suite 100 Marietta, GA 30062	Electronic Service	No	SPL_SL_13-315_Interested Parties

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Linda	Jensen	linda.s.jensen@ag.state.mn.us	Office of the Attorney General-DOC	1800 BRM Tower 445 Minnesota Street  St. Paul, MN 551012134	Electronic Service	Yes	SPL_SL_13-315_Interested Parties
Richard	Johnson	johnsonr@moss-barnett.com	Moss & Barnett	4800 Wells Fargo Center90 South Seventh Street  Minneapolis, MN 55402	Electronic Service	No	SPL_SL_13-315_Interested Parties
Mara	Koeller	mara.n.koeller@xcelenergy.com	Xcel Energy	414 Nicollet Mall 5th Floor Minneapolis, MN 55401	Electronic Service	No	SPL_SL_13-315_Interested Parties
Jon	Kramer	jk2surf@aol.com	Sundial Solar	4708 york ave. S  Minneapolis, MN 55410	Electronic Service	No	SPL_SL_13-315_Interested Parties
John	Lindell	agorud.ecf@ag.state.mn.us	Office of the Attorney General-RUD	1400 BRM Tower 445 Minnesota St St. Paul, MN 551012130	Electronic Service	Yes	SPL_SL_13-315_Interested Parties
Matthew P	Loftus	matthew.p.loftus@xcelenergy.com	Xcel Energy	414 Nicollet Mall FL 5  Minneapolis, MN 55401	Electronic Service	No	SPL_SL_13-315_Interested Parties
Rebecca	Lundberg	rebecca.lundberg@powerfullygreen.com	Powerfully Green	11451 Oregon Ave N  Champlin, MN 55316	Electronic Service	No	SPL_SL_13-315_Interested Parties
Paula	Maccabee	Pmaccabee@visi.com	Just Change Law Offices	1961 Selby Avenue  St. Paul, MN 55104	Paper Service	No	SPL_SL_13-315_Interested Parties
Pam	Marshall	pam@energycents.org	Energy CENTS Coalition	823 7th St E  St. Paul, MN 55106	Paper Service	No	SPL_SL_13-315_Interested Parties
Mary	Martinka	mary.a.martinka@xcelenergy.com	Xcel Energy Inc	414 Nicollet Mall 7th Floor Minneapolis, MN 55401	Electronic Service	No	SPL_SL_13-315_Interested Parties

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Andrew	Moratzka	apmoratzka@stoel.com	Stoel Rives LLP	33 South Sixth Street Suite 4200 Minneapolis, MN 55402	Electronic Service	No	SPL_SL_13- 315_Interested Parties
Martin	Morud	mmorud@trunorthsolar.com	Tru North Solar	5115 45th Ave S  Minneapolis, MN 55417	Electronic Service	No	SPL_SL_13- 315_Interested Parties
Donna	Pickard	dpickard@aladdinsolar.com	Aladdin Solar	1215 Lilac Lane  Excelsior, MN 55331	Electronic Service	No	SPL_SL_13- 315_Interested Parties
Richard	Savelkoul	rsavelkoul@martinsquires.com	Martin & Squires, P.A.	332 Minnesota Street Ste W2750  St. Paul, MN 55101	Electronic Service	No	SPL_SL_13- 315_Interested Parties
Janet	Shaddix Elling	jshaddix@janetshaddix.com	Shaddix And Associates	Ste 122 9100 W Bloomington Frwy Bloomington, MN 55431	Electronic Service	Yes	SPL_SL_13- 315_Interested Parties
Gary	Shaver	N/A	Silicon Energy	3506 124th St NE  Marysville, WA 98271	Paper Service	No	SPL_SL_13- 315_Interested Parties
Chanti	Sourignavong	chantipal.sourignavong@honeywell.com	Honeywell	1985 Douglas Drive North MN10-111A Golden Valley, MN 55422-3992	Paper Service	No	SPL_SL_13- 315_Interested Parties
James M.	Strommen	jstrommen@kennedy-graven.com	Kennedy & Graven, Chartered	470 U.S. Bank Plaza 200 South Sixth Street Minneapolis, MN 55402	Electronic Service	No	SPL_SL_13- 315_Interested Parties
SaGonna	Thompson	Regulatory.Records@xcelenergy.com	Xcel Energy	414 Nicollet Mall FL 7  Minneapolis, MN 554011993	Electronic Service	No	SPL_SL_13- 315_Interested Parties
Kari L	Valley	kari.l.valley@xcelenergy.com	Xcel Energy Service Inc.	414 Nicollet Mall FL 5  Minneapolis, MN 55401	Electronic Service	No	SPL_SL_13- 315_Interested Parties



First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Scott M.	Wilensky	scott.wilensky@xcelenergy.com	Xcel Energy	7th Floor 414 Nicollet Mall Minneapolis, MN 554011993	Electronic Service	No	SPL_SL_13- 315_Interested Parties
Daniel	Williams	N/A	Powerfully Green	11451 Oregon Avenue N  Champlin, MN 55316	Paper Service	No	SPL_SL_13- 315_Interested Parties

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Ross	Abbey	abbey@fresh-energy.org	Fresh Energy	408 Saint Peter St Ste 220  St. Paul, MN 55102-1125	Paper Service	No	SPL_SL_13-315_Solar Stakeholders List
Michael	Allen	michael.allen@allenergysolar.com	All Energy Solar	721 W 26th st Suite 211  Minneapolis, Minnesota 55405	Electronic Service	No	SPL_SL_13-315_Solar Stakeholders List
John	Aune	johna@bluehorizonsolar.com	Blue Horizon Energy	7246 Washington Ave S  Eden Prairie, MN 55344	Paper Service	No	SPL_SL_13-315_Solar Stakeholders List
Sara	Bergan	sebergan@stoel.com	Stoel Rives LLP	33 South Sixth Street Suite 4200 Minneapolis, MN 55402	Paper Service	No	SPL_SL_13-315_Solar Stakeholders List
Thor	Bjork	Thor.S.Bjork@xcelenergy.com	Xcel Energy	414 Nicollet Mall  Minneapolis, MN 55401	Electronic Service	No	SPL_SL_13-315_Solar Stakeholders List
William A.	Blazar	bblazar@mnychamber.com	Minnesota Chamber Of Commerce	Suite 1500 400 Robert Street North St. Paul, MN 55101	Electronic Service	No	SPL_SL_13-315_Solar Stakeholders List
Michael J.	Bull	N/A	Center for Energy and Environment	212 Third Avenue North, Suite 560  Minneapolis, MN 55401	Paper Service	No	SPL_SL_13-315_Solar Stakeholders List
Jessica	Burdette	jessica.burdette@state.mn.us	Department of Commerce	85 7th Place East Suite 500 St. Paul, MN 55101	Electronic Service	No	SPL_SL_13-315_Solar Stakeholders List
Joel	Cannon	jcannon@tenksolar.com	Tenk Solar, Inc.	9549 Penn Avenue S  Bloomington, MN 55431	Electronic Service	No	SPL_SL_13-315_Solar Stakeholders List
John J.	Carroll	jcarroll@newportpartners.com	Newport Partners, LLC	9 Cushing, Suite 200  Irvine, California 92618	Electronic Service	No	SPL_SL_13-315_Solar Stakeholders List

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Steve W.	Chriss	Stephen.chriss@wal-mart.com	Wal-Mart	2001 Southeast 10th St.  Bentonville, AZ 72716-5530	Paper Service	No	SPL_SL_13-315_Solar Stakeholders List
Steve	Coleman	scoleman@appliedenergyinnovations.org	Applied Energy Innovations	4000 Minnehaha Ave S  Minneapolis, MN 55406	Paper Service	No	SPL_SL_13-315_Solar Stakeholders List
Chris	Davis	christopher.davis@state.mn.us	Department of Commerce	Suite 500 85 Seventh Place East St. Paul, MN 551012198	Electronic Service	No	SPL_SL_13-315_Solar Stakeholders List
Dustin	Denison	N/A	Applied Energy Innovations	4000 Minnehaha Ave S  Minneapolis, MN 55406	Paper Service	No	SPL_SL_13-315_Solar Stakeholders List
Dan	Donkers	N/A	Saint Paul - Ramsey County Public Health	Environmental Health Section 2785 White Bear Ave. Suite 350 Maplewood, MN 55109	Paper Service	No	SPL_SL_13-315_Solar Stakeholders List
Bill	Droessler	N/A	Izaak Walton League of America-MWO	1619 Dayton Ave Ste 202  Saint Paul, MN 55104	Paper Service	No	SPL_SL_13-315_Solar Stakeholders List
Rick	Evans	Rick.Evans@xcelenergy.com	Xcel Energy	404 Nicollet Mall  Minneapolis, MN 55401	Electronic Service	No	SPL_SL_13-315_Solar Stakeholders List
Nathan	Franzen	nathan@geronimoenergy.com	Geronimo Energy	7650 Edinborough Way Suite 725 Edina, MN 55435	Paper Service	No	SPL_SL_13-315_Solar Stakeholders List
Lee	Gabler	Lee.E.Gabler@xcelenergy.com	Xcel Energy	404 Nicollet Mall  Minneapolis, MN 55401	Electronic Service	No	SPL_SL_13-315_Solar Stakeholders List
Benjamin	Gerber	bgerber@mnchamber.com	Minnesota Chamber of Commerce	400 Robert Street North Suite 1500 St. Paul, Minnesota 55101	Electronic Service	No	SPL_SL_13-315_Solar Stakeholders List

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Elizabeth	Goodpaster	bgoodpaster@mncenter.org	MN Center for Environmental Advocacy	Suite 206 26 East Exchange Street St. Paul, MN 551011667	Electronic Service	No	SPL_SL_13-315_Solar Stakeholders List
Bill	Grant	Bill.Grant@state.mn.us	Minnesota Department of Commerce	85 7th Place East, Suite 500  St. Paul, MN 55101	Electronic Service	No	SPL_SL_13-315_Solar Stakeholders List
Lloyd	Grooms	lgrooms@winthrop.com	Winthrop and Weinstine	Suite 3500 225 South Sixth Street Minneapolis, MN 554024629	Electronic Service	No	SPL_SL_13-315_Solar Stakeholders List
Tony	Hainault	anthony.hainault@co.hennepin.mn.us	Hennepin County DES	701 Fourth Ave. S., Ste 700  Minneapolis, MN 55415-1842	Paper Service	No	SPL_SL_13-315_Solar Stakeholders List
J Drake	Hamilton	hamilton@fresh-energy.org	Fresh Energy	408 St Peter St  Saint Paul, MN 55101	Paper Service	No	SPL_SL_13-315_Solar Stakeholders List
Samuel	Hanson	N/A	Briggs And Morgan, P.A.	2200 IDS Center E 80 South Eighth Street Minneapolis, MN 55402	Paper Service	No	SPL_SL_13-315_Solar Stakeholders List
Brandon	Heath	bheath@misoenergy.org	MISO Energy	1125 Energy Park Drive  St. Paul, MN 55108-5001	Paper Service	No	SPL_SL_13-315_Solar Stakeholders List
Lynn	Hinkle	lhinkle@mnseia.org	Minnesota Solar Energy Industries Association	2512 33rd Ave South #2  Minneapolis, MN 55406	Paper Service	No	SPL_SL_13-315_Solar Stakeholders List
Holly	Hinman	holly.r.hinman@xcelenergy.com	Xcel Energy	414 Nicollet Mall, 6th Floor  Minneapolis, MN 55401	Electronic Service	No	SPL_SL_13-315_Solar Stakeholders List
David	Horneck	david.g.horneck@xcelenergy.com	Xcel Energy	1800 Larimer Street  Denver, CO 80202	Electronic Service	No	SPL_SL_13-315_Solar Stakeholders List

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Jan	Hubbard	Jan@AppliedEnergyInnovations.org	Applied Energy Innovations, LLC	4000 Minnehaha Avenue South  Minneapolis, MN 55406	Paper Service	No	SPL_SL_13-315_Solar Stakeholders List
Anne	Hunt	anne.hunt@ci.stpaul.mn.us	City of Saint Paul	390 City Hall 15 West Kellogg Boulevard  Saint Paul, MN 55102	Electronic Service	No	SPL_SL_13-315_Solar Stakeholders List
Steve	Huso	steve.huso@xcelenergy.com	Xcel Energy	G.O. 7th Floor 414 Nicollet Mall Minneapolis, MN 554011993	Electronic Service	No	SPL_SL_13-315_Solar Stakeholders List
Ralph	Jacobson	N/A	Innovative Power Systems, Inc.	1413 Hunting Valley Rd Ste 1  Saint Paul, MN 55109-1555	Paper Service	No	SPL_SL_13-315_Solar Stakeholders List
Dwight	Jelle	dkjelle@gmail.com	Best Power International, LLC	P.O. 5126  Hopkins, MN 55343	Electronic Service	No	SPL_SL_13-315_Solar Stakeholders List
Alan	Jenkins	aj@jenkinsatlaw.com	Jenkins at Law	2265 Roswell Road Suite 100 Marietta, GA 30062	Electronic Service	No	SPL_SL_13-315_Solar Stakeholders List
Linda	Jensen	linda.s.jensen@ag.state.mn.us	Office of the Attorney General-DOC	1800 BRM Tower 445 Minnesota Street  St. Paul, MN 551012134	Electronic Service	No	SPL_SL_13-315_Solar Stakeholders List
Richard	Johnson	johnsonr@moss-barnett.com	Moss & Barnett	4800 Wells Fargo Center 90 South Seventh Street  Minneapolis, MN 55402	Electronic Service	No	SPL_SL_13-315_Solar Stakeholders List
Kerry	Klemm	kerry.r.klemm@xcelenergy.com	Xcel Energy Services, Inc	414 Nicollet Mall  Minneapolis, MN 55401	Electronic Service	No	SPL_SL_13-315_Solar Stakeholders List

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Mara	Koeller	mara.n.koeller@xcelenergy.com	Xcel Energy	414 Nicollet Mall 5th Floor Minneapolis, MN 55401	Electronic Service	No	SPL_SL_13-315_Solar Stakeholders List
Jon	Kramer	jk2surf@aol.com	Sundial Solar	4708 york ave. S  Minneapolis, MN 55410	Electronic Service	No	SPL_SL_13-315_Solar Stakeholders List
Allen	Krug	allen.krug@xcelenergy.com	Xcel Energy	414 Nicollet Mall-7th fl  Minneapolis, MN 55401	Electronic Service	No	SPL_SL_13-315_Solar Stakeholders List
Scott	Kurtz	Scott.J.Kurtz@xcelenergy.com	Xcel Energy	825 Rice Street  St. Paul, MN 55117	Electronic Service	No	SPL_SL_13-315_Solar Stakeholders List
Amy	Liberkowski	amy.a.liberkowski@xcelenergy.com	Xcel Energy	414 Nicollet Mall 7th Floor Minneapolis, MN 554011993	Electronic Service	No	SPL_SL_13-315_Solar Stakeholders List
Bob	Long	rlong@larkinhoffman.com	Larkin Hoffman (Silicon Energy)	1500 Wells Fargo Plaza 7900 Xerxes Ave S Bloomington, MN 55431	Paper Service	No	SPL_SL_13-315_Solar Stakeholders List
Rebecca	Lundberg	rebecca.lundberg@powerfullygreen.com	Powerfully Green	11451 Oregon Ave N  Champlin, MN 55316	Electronic Service	No	SPL_SL_13-315_Solar Stakeholders List
Paula	Maccabee	Pmaccabee@visi.com	Just Change Law Offices	1961 Selby Avenue  St. Paul, MN 55104	Paper Service	No	SPL_SL_13-315_Solar Stakeholders List
Casey	Maccullum	casey@appliedenergyinnovations.org	Applied Energy Innovations	4000 Minnehaha Ave S  Minneapolis, MN 55406	Paper Service	No	SPL_SL_13-315_Solar Stakeholders List
Susan	Mackenzie	susan.mackenzie@state.mn.us	Public Utilities Commission	Suite 350121 7th Place East  St. Paul, MN 551012147	Electronic Service	No	SPL_SL_13-315_Solar Stakeholders List

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Kavita	Maini	kmaini@wi.rr.com	KM Energy Consulting LLC	961 N Lost Woods Rd Oconomowoc, WI 53066	Electronic Service	No	SPL_SL_13-315_Solar Stakeholders List
Pam	Marshall	pam@energycents.org	Energy CENTS Coalition	823 7th St E St. Paul, MN 55106	Paper Service	No	SPL_SL_13-315_Solar Stakeholders List
Natalie	McIntire	natalie.mcintire@gmail.com	Wind on the Wires	570 Asbury St Ste 201 St. Paul, MN 55104-1850	Paper Service	No	SPL_SL_13-315_Solar Stakeholders List
Brian	Millberg	Brian.Millberg@minneapolismn.gov	City of Minneapolis	350 South 5th St, #315 Minneapolis, MN 55415	Paper Service	No	SPL_SL_13-315_Solar Stakeholders List
Stacy	Miller	stacy.miller@state.mn.us	Department of Commerce	State Energy Office 85 7th Place East, Suite 500 St. Paul, MN 55101	Electronic Service	No	SPL_SL_13-315_Solar Stakeholders List
Andrew	Moratzka	apmoratzka@stoel.com	Stoel Rives LLP	33 South Sixth Street Suite 4200 Minneapolis, MN 55402	Electronic Service	No	SPL_SL_13-315_Solar Stakeholders List
Martin	Morud	mmorud@trunorthsolar.com	Tru North Solar	5115 45th Ave S Minneapolis, MN 55417	Electronic Service	No	SPL_SL_13-315_Solar Stakeholders List
Michael	Noble		Fresh Energy	Hamm Bldg., Suite 220 408 St. Peter Street St. Paul, MN 55102	Paper Service	No	SPL_SL_13-315_Solar Stakeholders List
Rolf	Nordstrom	rnordstrom@gpisd.net	Great Plains Institute	2801 21ST AVE S STE 220 Minneapolis, MN 55407-1229	Electronic Service	No	SPL_SL_13-315_Solar Stakeholders List

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Kate	O'Connell	kate.oconnell@state.mn.us	Department of Commerce	Suite 50085 Seventh Place East  St. Paul, MN 551012198	Electronic Service	No	SPL_SL_13-315_Solar Stakeholders List
Nick	Paluck	nick.paluck@xcelenergy.com	Xcel Energy	7th Floor 414 Nicollet Mall Minneapolis, MN 554011993	Electronic Service	No	SPL_SL_13-315_Solar Stakeholders List
James	Pearson	james.g.pearson@xcelenergy.com	Xcel Energy	414 Nicollet Mall  Minneapolis, MN 55401	Electronic Service	No	SPL_SL_13-315_Solar Stakeholders List
Donna	Pickard	dpickard@aladdinsolar.com	Aladdin Solar	1215 Lilac Lane  Excelsior, MN 55331	Electronic Service	No	SPL_SL_13-315_Solar Stakeholders List
Charlie	Pickard	cpickard@aladdinsolar.com	Aladdin Solar	1215 Lilac Lane  Excelsior, MN 55331	Electronic Service	No	SPL_SL_13-315_Solar Stakeholders List
Gayle	Prest	gayle.prest@minneapolismn.gov	City of Mpls Sustainability	350 South 5th St, #315  Minneapolis, MN 55415	Paper Service	No	SPL_SL_13-315_Solar Stakeholders List
Richard	Savelkoul	rsavelkoul@martinsquires.com	Martin & Squires, P.A.	332 Minnesota Street Ste W2750  St. Paul, MN 55101	Electronic Service	No	SPL_SL_13-315_Solar Stakeholders List
Larry L.	Schedin	Larry@LLSResources.com	LLS Resources, LLC	12 S 6th St Ste 1137  Minneapolis, MN 55402	Electronic Service	No	SPL_SL_13-315_Solar Stakeholders List
Matthew J.	Schuerger P.E.	mjsreg@earthlink.net	Energy Systems Consulting Services, LLC	PO Box 16129  St. Paul, MN 55116	Electronic Service	No	SPL_SL_13-315_Solar Stakeholders List
Kevin	Schwain	Kevin.D.Schwain@xcelenergy.com	Xcel Energy	404 Nicollet Mall  Minneapolis, MN 55401	Electronic Service	No	SPL_SL_13-315_Solar Stakeholders List



First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Janet	Shaddix Elling	jshaddix@janetshaddix.com	Shaddix And Associates	Ste 122 9100 W Bloomington Frwy Bloomington, MN 55431	Electronic Service	No	SPL_SL_13-315_Solar Stakeholders List
Erin	Shea	eshea@silicon-energy.com	Silicon Energy	11168 Sumter Circle  Bloomington, MN 55438	Electronic Service	No	SPL_SL_13-315_Solar Stakeholders List
Doug	Shoemaker	dougs@mnRenewables.org	MRES	2928 5th Avenue South  Minneapolis, MN 55408	Paper Service	No	SPL_SL_13-315_Solar Stakeholders List
Chanti	Sourignavong	chantipal.sourignavong@honeywell.com	Honeywell	1985 Douglas Drive North MN10-111A Golden Valley, MN 55422-3992	Paper Service	No	SPL_SL_13-315_Solar Stakeholders List
Erin	Stojan Ruccolo		Fresh Energy	408 Saint Peter St Ste 220  Saint Paul, MN 55102-1125	Paper Service	No	SPL_SL_13-315_Solar Stakeholders List
James M.	Strommen	jstrommen@kennedy-graven.com	Kennedy & Graven, Chartered	470 U.S. Bank Plaza 200 South Sixth Street Minneapolis, MN 55402	Electronic Service	No	SPL_SL_13-315_Solar Stakeholders List
Deb	Sundin	deb.sundin@xcelenergy.com	Xcel Energy	414 Nicollet Mall  Minneapolis, MN 55401	Electronic Service	No	SPL_SL_13-315_Solar Stakeholders List
SaGonna	Thompson	Regulatory.Records@xcelenergy.com	Xcel Energy	414 Nicollet Mall FL 7  Minneapolis, MN 554011993	Electronic Service	No	SPL_SL_13-315_Solar Stakeholders List
Lise	Trudeau	lise.trudeau@state.mn.us	Department of Commerce	85 7th Place East Suite 500 Saint Paul, MN 55101	Electronic Service	No	SPL_SL_13-315_Solar Stakeholders List
Jason	Willett	N/A	Metropolitan Council	390 Robert St N  Saint Paul, MN 55101-1805	Paper Service	No	SPL_SL_13-315_Solar Stakeholders List

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Daniel	Williams	N/A	Powerfully Green	11451 Oregon Avenue N Champlin, MN 55316	Paper Service	No	SPL_SL_13-315_Solar Stakeholders List
Steven	Wishart	steven.w.wishart@xcelenergy.com	Xcel Energy	7th Floor 414 Nicollet Mall Minneapolis, MN 554011993	Electronic Service	No	SPL_SL_13-315_Solar Stakeholders List