



85 7th Place East, Suite 500, St. Paul, MN 55101-2198
Main: 651.539.1500
Fax: 651.539.1549

mn.gov/commerce/energy

December 9, 2013

Burl W. Haar
Executive Secretary
Minnesota Public Utilities Commission
121 7th Place East, Suite 350
St. Paul, Minnesota 55101-2147

RE: **Supplemental Comments of the Minnesota Department of Commerce, Division of Energy Resources**
Docket No. E-002/M-13-315

Dear Dr. Haar:

Attached are the Supplemental Comments of the Minnesota Department of Commerce, Division of Energy Resources (the Department) in the following matter:

In the Matter of a Rate for Large Solar Photovoltaic Installations.

Based on our review of the reply comments of other parties, the Department recommends that the Commission **continue with the existing interim solar Standby Service capacity credit of \$5.15 per kW/month until the Commission has made a determination on a final value based on a complete Effective Load Carrying Capability report.** The Department expects to provide the Commission its recommendation for a final solar capacity credit by February 14, 2014. The Department is available to answer any questions the Commission may have.

Sincerely,

/s/ CHRISTOPHER T. DAVIS
Rates Analyst

CTD/lt

BEFORE THE MINNESOTA PUBLIC UTILITIES COMMISSION

COMMENTS OF THE
MINNESOTA DEPARTMENT OF COMMERCE
DIVISION OF ENERGY RESOURCES

DOCKET No. E-002/M-13-315

I. INTRODUCTION

On May 13, 2013, the Commission issued its ORDER SETTING INTERIM RATE AND ESTABLISHING NEW SOLAR RATE DOCKET, in the above-cited docket. In this Order, the Commission established an interim photovoltaic (PV) capacity credit of \$5.15 per kW/month and ordered Northern States Power Company d/b/a Xcel Energy (Xcel) to file a large customer PV rate proposal by October 1, 2013. On October 1, 2013, Xcel filed a letter explaining that the Commission's May 13 Order was issued prior to the passage of legislation establishing the timeline to develop a value of solar (VOS) methodology. Since the capacity value of solar will be addressed in the Minnesota Department of Commerce's (Department) VOS methodology, and is related to the calculation of a large customer PV rate, Xcel believes filing a final rate proposal at this time would be premature.

On October 29, 2013, the Department submitted initial comments on Xcel's proposal. In our comments, the Department recommended that the Commission approve Xcel's proposal to continue the existing interim solar Standby Service capacity credit of \$5.15 per kW/month until the Commission has made a determination on the Value of Solar methodology. The Commission also received comments from:

- Sundial Solar;
- Izaak Walton League of America, Midwest office (IWLA); Minnesota Center for Environmental Advocacy, and Fresh Energy (collectively, Environmental Intervenors);
- Solar Rate Reform Group;
- AEG Group, LLC; and
- Minnesota Solar Energy Industries Association.

None of the other commenters supported delaying approval of the final capacity credit for the solar standby rate until the Value of Solar (VOS) tariff is finalized.

In our November 12, 2013 reply comments the Department proposed the following process and schedule to follow to ensure that Xcel's Rate for Large Solar Photovoltaic Installations is based on a valid Effective Load Carrying Capability (ELCC) Study:

- On December 2, 2013, the Department and other parties would submit written comments and recommendations on Xcel's November 1, 2013 ELCC and address the issue of REC ownership and any other relevant issues.
- On January 15, 2014, Xcel would submit an updated ELCC along with the Company's recommendations for the final solar capacity value.
- On February 14, 2014, parties would submit recommendations on the final solar capacity value.

On November 25, 2013, the Commission set a deadline of December 9, 2013 for supplemental comments on this issue and established the following areas in which it was seeking additional comments:

- Xcel's recommendation to continue the interim solar Standby Service capacity credit of \$5.15 per kW/month until the Commission has made a determination on the Value of Solar (VOS) methodology, which will be filed by the Department of Commerce (DOC) by January 31, 2014.
- Whether the Commission should modify the level of the interim capacity credit to reflect Xcel's updated ELCC and other record evidence without waiting for results of the DOC VOS methodology.
- Responses to any additional reply comments/recommendations filed in this docket.

The Department's response to the Commission's request for supplemental comments is provided below.

II. DEPARTMENT SUPPLEMENTAL COMMENTS

As a general overview, the Department notes that calculating the appropriate rate for a large PV installation will require both proper methodology and proper estimates of the values to be used in the methodology. The three components that should be used in the methodology include:

- The percent of PV plant capacity.¹
- The value to which the percent of PV plant capacity should be applied.²

¹ The percent of PV plant capacity is determined through the proper administration of an ELCC.

² Xcel contends that the percent of PV plant capacity from the ELCC should be applied to the demand component of the customer's standby rate. Other parties contend that the percent of PV plant capacity should be applied to the Company's avoided capacity cost as represented by the capacity costs of a natural gas fired combustion turbine.

- The period during which the percent of PV plant capacity should be applied.³

A. Xcel's Updated Solar ELCC Study, filed October 31, 2013.

In general, the Department agrees with Xcel's assessment that for the three years analyzed in Xcel's updated ELCC study (2008, 2009, and 2010), only the 2010 results demonstrated a valid reliability risk distribution. The years 2008 and 2009 showed significantly uncharacteristic distribution of system reliability risk hours and the ELCC study results for those two years should not be used. Although a proper ELCC study should be based on more than one year of data, the Department understands that data for 2011 and 2012 is not presently available. Thus, for now, it is reasonable for the ELCC study to be based on only one year of data. In future years the ELCC study should be updated to include additional years of data.

The Department notes that in general the capacity value (credit) for a generator is the amount of additional load that can be served due the addition of a generator while maintaining the same level of reliability. The ELCC methodology for a PV generator results in a capacity value which is expressed as a percentage of the PV plant (including module, inverter, etc.) capacity (also in kW-AC). Tables 3 (page 3) and 5 (page 11) of Xcel's October 31, 2013 study incorrectly state that the ELCC is a percentage of "AC nameplate capacity." The Department recommends that Xcel correct these tables to clearly state that ELCC is "AC capacity value as percentage of AC PV plant capacity."

B. Length of Interim Solar Standby Service Capacity Credit

While the Department understands the desire for a final rate as soon as possible, it is important for rates to be accurate and for the final solar Standby Service capacity credit to be recalculated based on a proper vetting of the issues before the Commission and the best currently available data and analysis. Thus, the Department recommends that the Commission maintain the interim solar Standby Service capacity credit of \$5.15 per kW per month at this time and revisit the interim rate after the Commission has made a determination on the Value of Solar (VOS) methodology, which will be filed by the Department by January 31, 2014.

C. Whether the Interim Capacity Credit Should be Modified to Reflect Xcel's Updated ELCC and Other Record Evidence

The Department recommends that the Commission maintain the interim rate of \$5.15 per kW per month until the Commission approves the final rate based on the best available methodology, analysis, and data, including the following key components:

³ Some parties contend the percent of PV plant capacity should be applied during all months. Xcel contends that the percent of PV plant capacity should not be applied during grace periods. Standby service demand charges are applied after the annual grace period. Xcel calculates the grace period from the forced outage rate of its generation fleet (generation fleet Force Outage Rate of 11% times 8760 hours = 964 hours per year).

1. The percentage capacity value,⁴
2. Avoided costs,
3. Avoided transmission, and
4. Avoided line losses.

D. Response to Comments from Other Parties

The Department notes that the issue of Renewable Energy Credit (REC) ownership has been raised in this docket. However, the issue of REC ownership has also been raised in other solar energy dockets before the Commission, including Xcel's Community Solar Garden Proposal (Docket No. E002/M-13-867) and Xcel's Solar Rewards project (Docket No. E002/M-13-1015). The Department believes that the issue of RECs will be further explored in these dockets and in the Value of Solar tariff methodology filing which the Department will present to the Commission in January 2014.

III. DEPARTMENT RECOMMENDATIONS

The Department recommends that the Commission maintain the present Standby Service capacity credit of \$5.15 per kW until Xcel's October 31, 2013 ELCC study is properly vetted and a final Standby Service capacity credit is established based on the best available methodology and data. The Department will make its recommendation concerning final solar capacity values on February 14, 2014.

/t

⁴ The percentage capacity value should be determined by applying either the 2010 fixed panel average ELCC (Table 5 of Xcel's October 31, 2013 updated study) or, the MISO rating methodology (SRRG Information Request 22, November 18, 2013; Section 4.2.2.4 of the MISO Resource Adequacy Business Practices Manual, BPM-011) to the specific PV plant.

CERTIFICATE OF SERVICE

I, Sharon Ferguson, hereby certify that I have this day, served copies of the following document on the attached list of persons by electronic filing, certified mail, e-mail, or by depositing a true and correct copy thereof properly enveloped with postage paid in the United States Mail at St. Paul, Minnesota.

**Minnesota Department of Commerce
Supplemental Comments**

Docket No. E002/M-13-315

Dated this 9th day of **December, 2013**

/s/Sharon Ferguson

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	Electronic 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	dustin@appliedenergyinnovations.org	Applied Energy Innovations	4000 Minnehaha Ave S Minneapolis, MN 55406	Electronic 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	Electronic 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 4th Ave S Ste 700 Minneapolis, MN 55415-1842	Electronic 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	Electronic 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	Electronic 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	Rick.Johnson@lawmoss.com	Moss & Barnett	90 South 7th Street Suite #4800 Minneapolis, MN 554024129	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@justchangela.w.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	Electronic 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	noble@fresh-energy.org	Fresh Energy	Hamm Bldg., Suite 220 408 St. Peter Street St. Paul, MN 55102	Electronic 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	ruccolo@fresh-energy.org	Fresh Energy	408 Saint Peter St Ste 220 Saint Paul, MN 55102-1125	Electronic 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	jason.willett@metc.state.mn.us	Metropolitan Council	390 Robert St N Saint Paul, MN 55101-1805	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
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

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	Rick.Johnson@lawmoss.com	Moss & Barnett	90 South 7th Street Suite #4800 Minneapolis, MN 554024129	Electronic Service	No	SPL_SL_13-315_Interested Parties
Michael	Kampmeyer	mkampmeyer@a-e-group.com	AEG Group, LLC	260 Salem Church Road Sunfish Lake, Minnesota 55118	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@justchangela.w.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	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
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
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

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
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
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