



414 Nicollet Mall
Minneapolis, MN 55401

December 19, 2014

—Via Electronic Filing—

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

RE: PETITION FOR APPROVAL OF THE FIRST AMENDMENT TO THE
INTERCONNECTION AGREEMENT WITH BEST POWER INT'L, LLC
DOCKET NO. E002/M-14-____

Dear Dr. Haar:

Enclosed is our Petition requesting approval of the First Amendment to the Interconnection Agreement between Xcel Energy, Best Power Int'l, LLC, and the Order of Saint Benedict which would increase the generator output of the St. John's solar installation from 400 kW to 500 kW.

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 me at (612) 330-7529 or paul.lehman@xcelenergy.com if you have any questions regarding this filing.

Sincerely,

/s/

PAUL J LEHMAN
MANAGER, REGULATORY COMPLIANCE & FILINGS

Enclosure
c: Service List

STATE OF MINNESOTA
BEFORE THE
MINNESOTA PUBLIC UTILITIES COMMISSION

Beverly Jones Heydinger	Chair
David C. Boyd	Commissioner
Nancy Lange	Commissioner
Dan Lipschultz	Commissioner
Betsy Wergin	Commissioner

IN THE MATTER OF THE PETITION OF
NORTHERN STATES POWER COMPANY
FOR APPROVAL OF THE FIRST
AMENDMENT TO THE
INTERCONNECTION AGREEMENT WITH
BEST POWER INT'L, LLC

DOCKET NO. E002/M-14-____

PETITION

INTRODUCTION

Northern States Power Company, doing business as Xcel Energy, submits this Petition requesting approval of the First Amendment to the Interconnection Agreement (IA) with Best Power Int'l, LLC and the Order of Saint Benedict. The First Amendment increases the total generator output of the St. John's solar installation from 400 kW to 500 kW. The Company requests the Minnesota Public Utilities Commission find that this Amendment is reasonable and in the public interest for the following reasons:

- The Commission has approved a Renewable Development Fund (RDF) grant to expand the St. John's Solar installation from 400 kW connected to 500 kW connected;
- The PPA Amendment which increased the nameplate capacity of the St. John's solar installation has already been approved by the Commission; and
- Best Power will be responsible for any costs incurred by NSP to modify the Xcel Energy distribution system as a result of this expansion.

We believe this amendment is in the public interest and respectfully request the Commission approve the First Amendment to the Interconnection Agreement.

In this Petition, we outline:

- The Project background;

- The terms of the First Amendment; and
- Why we believe the First Amendment is reasonable and should be approved.

I. SUMMARY OF FILING

A one-paragraph summary of this filing accompanies this petition pursuant to Minnesota Rule 7829.1300, subp. 1.

II. SERVICE ON OTHER PARTIES

Pursuant to Minnesota Rule 7829.1300, subp. 2, we have electronically filed this document with the Minnesota Public Utilities Commission, and copies have been served on the parties on the attached miscellaneous electric service list.

III. GENERAL FILING INFORMATION

Pursuant to Minn. R. 7829.1300, subp. 3, Xcel Energy provides the following required 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 R. Denniston
Assistant General Counsel
Xcel Energy
414 Nicollet Mall, 5th Floor
Minneapolis, MN 55401
(612) 215-4656

C. Date of Filing and Proposed Effective Date of Rates

Xcel Energy submits this petition for approval on December 19, 2014.

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 Minn. R.

7829.0100, subp. 11. Pursuant to Minn. R. 7829.0100, 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 the expiration of the original comment period.

E. Utility Employee Responsible for Filing

Paul J Lehman
Manager, Regulatory Compliance & Filings
Xcel Energy
414 Nicollet Mall, 7th Floor
Minneapolis, Minnesota 55401
612-330-7529

IV. MISCELLANEOUS INFORMATION

Pursuant to Minnesota Rule 7829.0700, Xcel Energy requests that the following persons be placed on the Commission’s official service list for this matter:

James R. Denniston
Assistant General Counsel
Xcel Energy
414 Nicollet Mall, 5th Floor
Minneapolis, Minnesota 55401
james.r.denniston@xcelenergy.com

Tiffany Hughes
Records Analyst
Xcel Energy
414 Nicollet Mall, 7th Floor
Minneapolis, Minnesota 55401
Regulatory.records@xcelenergy.com

V. DESCRIPTION AND PURPOSE OF FILING

A. Project Background

Best Power is currently a 400 kW solar project located at the Order of Saint Benedict at St. John’s Abbey and University in Stearns County in Collegeville, MN. Best Power is a single-purpose entity created by project participants to construct, own and operate this solar generation system. The PPA for solar generation with Best Power was the result of contract negotiations for the purchase of energy from a project selected to receive a grant award from Xcel Energy’s Renewable Development Fund (RDF)¹

¹ The RDF program was established in 1994 by the Minnesota legislature. As a condition of storing spent nuclear fuel in dry casks at both the Prairie Island plant and the Monticello Nuclear Power Plant, Minn. Stat. 116C.779 currently requires the Company to transfer \$26.0 million annually to the RDF account. The purpose of RDF is to provide financial support for new and emerging renewable energy production projects as well as renewable energy research and development projects.

program in 2008.² The Company submitted a request for approval of the Best Power PPA on December 30, 2009. The PPA was approved in Docket No. E002/M-09-1481 by the Commission on June 25, 2010. In that Order, the Commission also approved an interconnection agreement with Best Power and the Order of St. Benedict at St. John's Abbey, an electric service agreement with Best Power, and an addendum to an existing ESA with the Order of St. Benedict.

Best Power applied for and received an RDF grant in the fourth cycle grant round to increase the generator output of its facility to 500 kW.³ On June 11, 2014, the Company submitted a request for approval of the First Amendment to the PPA with Best Power which updated the stated Committed Nameplate Capacity from 400 kW to 500 kW⁴ in several sections of the PPA and its appendices.⁵ The Commission's September 8, 2014 Order in Docket No. E002/M-14-490 approved the First Amendment.

In order to achieve the capacity increase, the existing 500 kW inverter installed in 2009 will be curtailed to output a maximum of 360 kW. The new system will consist of seven 20 kW inverters resulting in a maximum output of 140 kW from the new system. The project is still on time to achieve a Commercial Operation Date for the added array in late 2014, and approval of this First Amendment is important for the added installation to begin operations.

B. Relevant Amendment Terms

The original IA executed in 2009 was written for a 400 kW solar installation, but all components were sized for a 500 kW system. A three party Interconnection Agreement between Best Power, the Order of St. Benedict at St. John's Abbey, and Xcel Energy was required because the St. John's solar installation requires interconnection service to connect to the system and allow NSP to purchase the power from the solar installation owned by Best Power, but that solar installation is connected behind a primary metered service that serves the Order of St. Benedict.

² The Commission approved an RDF cycle three grant award in the amount of \$1,994,000 for Best Power's solar project in its Order dated April 1, 2008 (Docket No. E002/M-07-675).

³ The RDF fourth cycle grant round was approved by the Commission in its March 11, 2014 Order in Docket No. E002/M-12-1278.

⁴ As stated in the RDF grant request for this project expansion, Best Power is adding 198 kW to the existing 400 kW solar facility. However, the generator output of the project will be limited by the 500 kW rating of the existing inverter.

⁵ Article II, 2.5 and Appendices C & D

Now that the fourth cycle RDF grant and the corresponding PPA Amendment have been approved to expand the capacity of St. John's solar installation from 400 kW to 500 kW, we respectfully request approval of the First Amendment to the Interconnection Agreement with Best Power and the Order of Saint Benedict which increases the generator output from 400 kW to 500 kW. The First Amendment is included with this filing as Attachment A.

Updates reflecting this increase in the generator output have been made in the attached Exhibit A-1, which will replace Exhibit A in the existing IA, and to the attached Exhibit C-1, which will be added in addition to Exhibit C of the existing IA.

Furthermore, the IA stipulates that Best Power will be responsible for any costs incurred by NSP to modify the Xcel Energy distribution system as a result of this expansion.

C. Reasonableness of the First Amendment

The First Amendment to the Interconnection Agreement between Best Power, the Order of St. Benedict at St. John's Abbey, and Xcel Energy is reasonable because it is consistent with the First Amendment to the PPA which has already been approved by the Commission. Furthermore, the First Amendment to the IA stipulates that Best Power will be responsible for any costs incurred by NSP to modify the Xcel Energy distribution system as a result of this expansion, so other Xcel Energy customers will not bear any cost responsibility for changes resulting from this amendment.

In addition, this project has been funded by the Company's RDF program and the grant award to Best Power has already been approved by the Commission. The project has been vetted by the Commission as acceptable for purposes of the RDF grant award.

VI. EFFECT OF PROJECT ON XCEL ENERGY REVENUE

No net change in revenue to Xcel Energy in the Minnesota jurisdiction will result from this IA amendment. The IA stipulates that Best Power will be responsible for any costs incurred by NSP to modify the Xcel Energy distribution system as a result of this expansion.

CONCLUSION

Xcel Energy respectfully requests the Commission approve the First Amendment to the Interconnection Agreement with Best Power Int'l, LLC and the Order of Saint

Benedict. We believe the First Amendment is reasonable and in the public interest as it will not result in any additional costs to other customers and is consistent with past Commission approvals, including approval of the First Amendment to the Best Power PPA. Therefore, the Company respectfully requests the Commission find that the First Amendment to the Best Power Interconnection Agreement is reasonable and in the public interest.

Dated: December 19, 2014

Northern States Power Company

STATE OF MINNESOTA
BEFORE THE
MINNESOTA PUBLIC UTILITIES COMMISSION

Beverly Jones Heydinger
David C. Boyd
Nancy Lange
Dan Lipschultz
Betsy Wergin

Chair
Commissioner
Commissioner
Commissioner
Commissioner

IN THE MATTER OF THE PETITION OF
NORTHERN STATES POWER COMPANY
FOR APPROVAL OF THE FIRST
AMENDMENT TO THE
INTERCONNECTION AGREEMENT WITH
BEST POWER INT'L, LLC

DOCKET No. E002/M-14-____

PETITION

SUMMARY OF FILING

Please take note that on December 19, 2014, Northern States Power Company, doing business as Xcel Energy, filed with the Minnesota Public Utilities Commission a Petition for approval of the First Amendment to the Interconnection Agreement between Xcel Energy, Best Power Int'l, LLC and the Order of Saint Benedict which would increase the total generator output of the St. John's solar installation from 400 kW to 500 kW, consistent with the Commission-approved First Amendment to the Best Power Int'l, LLC PPA.

**FIRST AMENDMENT
TO INTERCONNECTION AGREEMENT**

**For the Interconnection of Extended Parallel Distributed Generation Systems With
Electric Utilities**

THIS FIRST AMENDMENT TO INTERCONNECTION AGREEMENT (“**First Amendment**”) is entered into among Northern States Power Company, a Minnesota corporation (“**Xcel Energy**”), Best Power Intl., LLC, a Minnesota limited liability company (“**Interconnection Customer**”) and Order of Saint Benedict, a Minnesota nonprofit corporation (“**Local EPS Operator**”). Xcel Energy, Interconnection Customer, and Local EPS Operator are hereinafter referred to individually as a “**Party**” and collectively as the “**Parties.**”

WITNESSETH:

WHEREAS, Xcel Energy, Interconnection Customer and Local EPS Operator are parties to that certain Interconnection Agreement signed in December 2009 as previously approved by the Minnesota Public Utilities Commission (“**MPUC**”) in Docket No. E002/M-09-1481 by order dated June 25, 2010 (the “**Interconnection Agreement**”);

WHEREAS, Interconnection Customer and Local EPS Operator desire to increase the nameplate capacity of the facility’s Nameplate Capacity from 400 to 500 kW of solar generation and have entered into an amendment to the Power Purchase Agreement with Xcel Energy which was approved by the MPUC in Docket No. E002/M-14-490 by order dated September 8, 2014;

WHEREAS, the Interconnection Agreement is specific to a solar Generation System limited to a Nameplate Capacity of 400 kW and that to implement the amended Power Purchase Agreement the Interconnection Agreement needs to be amended to allow for interconnection of a solar Generation System of up to 500 kW;

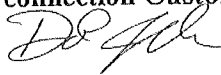
NOW, THEREFORE, in consideration of the foregoing and other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged by the Parties, and intending to be legally bound hereby, the Parties agree as follows:

1. **Capitalized Terms.** Capitalized terms used but not defined herein shall have the meanings set forth in the Interconnection Agreement.
2. **Modification of limit on Nameplate Capacity.**
 - (a) Article I.A of the Interconnection Agreement is amended by deleting the prior Article I.A and substituting a new Article I.A which is as follows:
 - A. Establishment of Point of Common Coupling. This Agreement is intended to provide for the Interconnection Customer to interconnect and operate a


8. **Counterparts.** This First Amendment may be executed in one or more counterparts, each of which shall be considered an original instrument, but all of which shall be considered one and the same agreement, and shall become binding when one or more counterparts have been signed by each of the Parties and delivered to each of them.
9. **Applicable Law.** Subject to applicable federal law, this First Amendment shall be governed by the laws of the State of Minnesota.

IN WITNESS WHEREOF, the Parties have caused this First Amendment to be executed as of the day and year shown below.

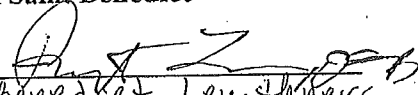
Interconnection Customer

By: 
Name: Dwight Jelle
Title: President
Date: 12/15/14

**NORTHERN STATES POWER
COMPANY, a Minnesota Corporation,
Xcel Energy Services Inc. as agent for
Northern States Power Company**

By: 
Name: Joel Limoges
Title: Area Engineering Mgr
Date: 12/15/2014

Order of Saint Benedict

By: 
Name: benedict Lew
Title: Treasurer
Date: 12/15/2014



ST. JOHN'S SOLAR FARM 2014
Collegeville, Minnesota

PRELIMINARY CD SET
ISSUED NOT FOR CONSTRUCTION

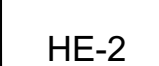
I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

DATE: PAUL BISSON
LICENSE # 26752 DATE: 8-13-14

NO.	REVISION	DATE
	REVISED XCEL SET	8-18-14
	REVISED UTI METER LABEL	9-11-14
	ELECTRICAL CONST. SET	10-8-14

PV SYSTEM ONE-LINE WIRING DIAGRAM

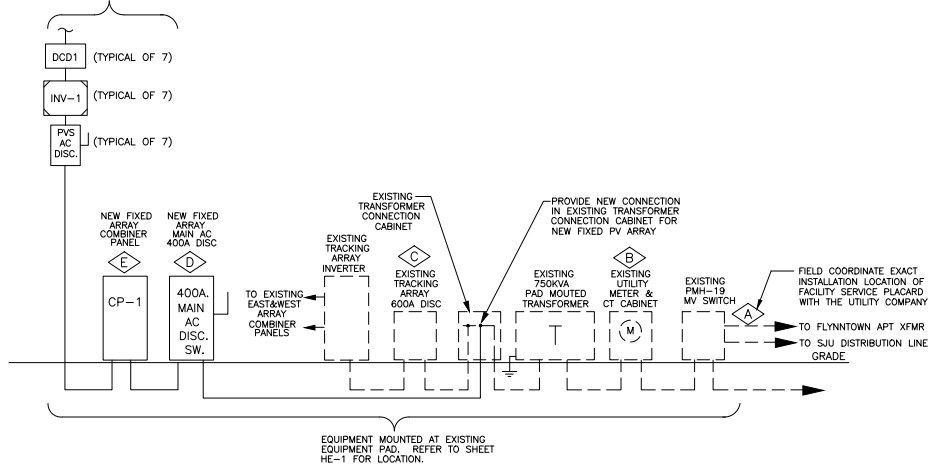
JOB NO: 899103DE
DATE: 8-13-2014
DESIGN: SJD
CHECKED: D.P.B./D.E.
SCALE: AS NOTED
SHEET:



HE-2

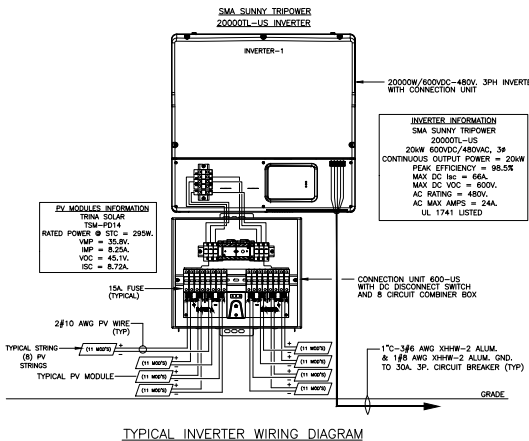
SYSTEM SUMMARY	
MODULE MODEL	TRINA SOLAR TSM-PD14
MODULE STC DC RATING	295 WATTS
MODULE PER SOURCE CIRCUIT	11 MODULES PER STRING
TOTAL MODULE COUNT	616
DC SYSTEM VOLTAGE	600V.
MAXIMUM SYSTEM VOLTAGE	480V.
TOTAL STC-DC SYSTEM SIZE	181,720 W.
TOTAL AC SYSTEM SIZE	140,000W.
INVERTER MODEL NO.	SMA SUNNY TRIPOWER 20000TL-US (OR EQUIVALENT)
TOTAL INVERTER COUNT	7
RACKING SYSTEM	DPW
AZIMUTH ANGLE	0°
MODULE TILT ANGLE	35°

(7) DC CONNECTION UNIT/INVERTERS
(8) STRINGS PER DC CONNECTION UNIT
(11) MODULES PER STRING
(86) TOTAL MODULES PER INVERTER (EQUIPMENT LOCATED AT ARRAY)

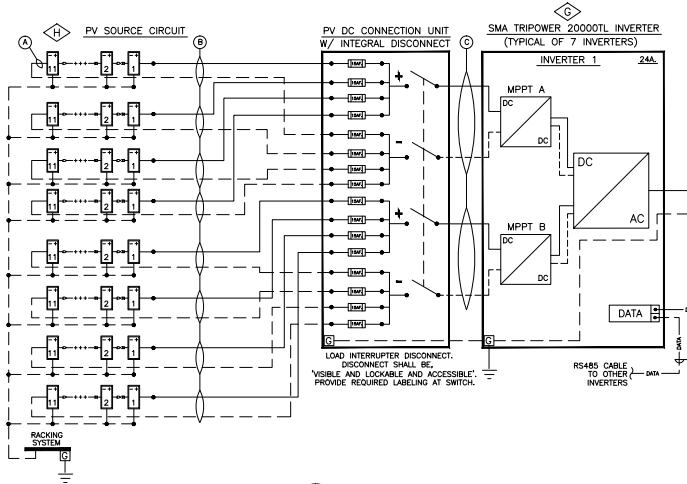


2 PV SYSTEM EQUIPMENT RISER DIAGRAM
HE-2 NOT TO SCALE

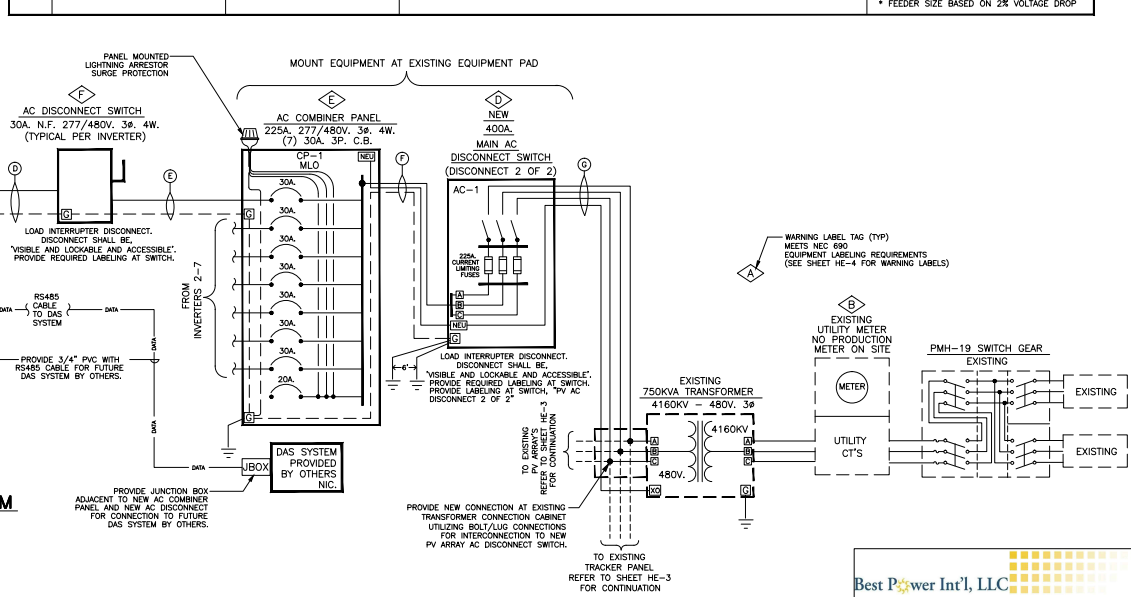
PV SYSTEM WIRE SCHEDULE				
ID	DESCRIPTION	FEEDER & CONDUIT SIZES	NOTES	
(A)	STRING WIRING	#10 AWG PV WIRE	PROVIDE WARNING LABELLING PER NEC REQ.	
(B)	MODULES	(2) #10 AWG PV WIRE	PROVIDE WARNING LABELLING PER NEC REQ.	
(C)	DC CONNECTION UNIT	(2) #10 AWG THHW-2 CU, (1) #10 AWG CU GND.	PROVIDE WARNING LABELLING PER NEC REQ.	
(D)	INVERTERS 1-7	1" (3) #6 AWG XHHW-2 ALUM, (1) #8 AWG ALUM GND.		
(E)	AC DISCONNECT SWITCH	1" (3) #6 AWG XHHW-2 ALUM, (1) #8 AWG ALUM GND.	* (7) INVERTERS FED TO PV COMBINER PANEL	
(F)	AC COMBINER PANEL CP-1	3 1/2" (3) #300 AWG XHHW-2 ALUM, (1) #300 AWG XHHW-2 NEU, (1) #2 AWG ALUM GND.		
(G)	MAIN AC DISCONNECT SWITCH	3 1/2" (3) #300 AWG XHHW-2 ALUM, (1) #300 AWG XHHW-2 NEU, (1) #2 AWG ALUM GND.		



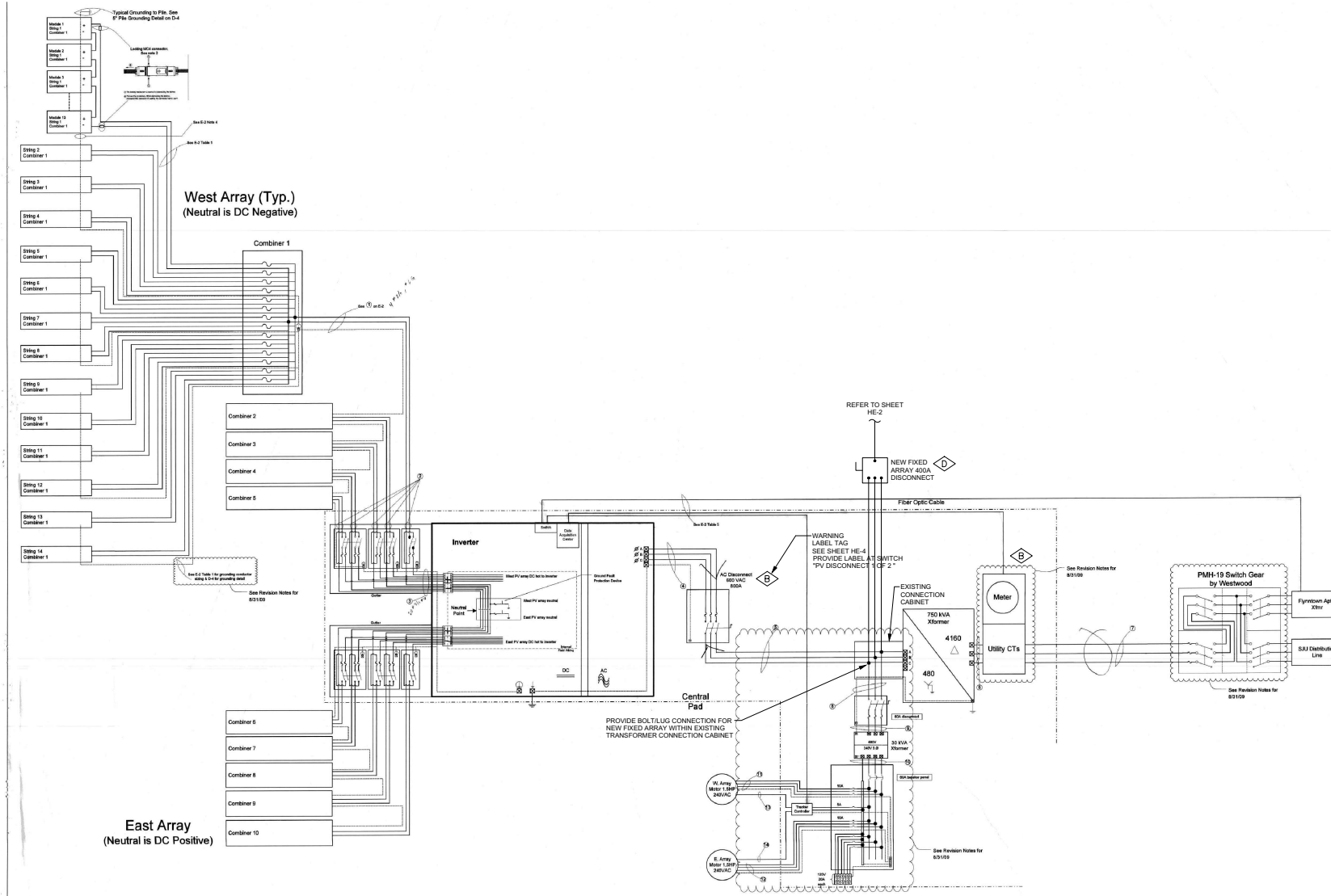
TYPICAL INVERTER WIRING DIAGRAM



1 PV SYSTEM ONE - LINE WIRING DIAGRAM
HE-2 NOT TO SCALE



TO EXISTING TRACKER PANEL REFER TO SHEET HE-3 FOR CONTINUATION



1
HE-3
EXISTING PV SYSTEM - ELECTRICAL SCHEMATIC
NOT TO SCALE

NOTE:
DRAWING PROVIDED FOR REFERENCE ONLY.
DOCUMENT NOT PRODUCED BY HUNT ELECTRIC

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

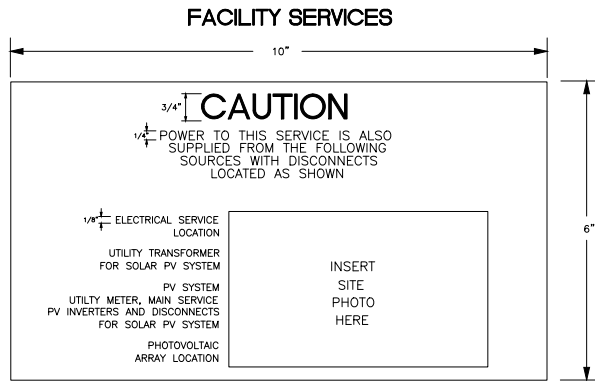
DATE: PAUL EYSSON
LICENSE # 26752 DATE: 8-13-14

NO.	REVISION	DATE
	REVISED XCEL SET	8-18-14
	REVISED UT METER LABEL	9-11-14
	ELECTRICAL CONST. SET	10-8-14

THIS DOCUMENT HAS BEEN PROVIDED BY HUNT ELECTRIC CORPORATION WITH THE UNDERSTANDING THAT THE QUALITY OF THE DATA REPORTED WILL BE DEPENDENT UPON THE QUALITY OF THE DATA PROVIDED BY THE CLIENT. HUNT ELECTRIC CORPORATION ASSUMES NO LIABILITY FOR THE ACCURACY, COMPLETENESS, OR DISTRIBUTION OF THIS DOCUMENT UNDER ANY OTHER CIRCUMSTANCES OR OTHERWISE.

EXISTING PV SYSTEM ELECTRICAL SCHEMATIC

JOB NO: 59910DE
DATE: 8-13-2014
DESIGN: SJD
CHECKED: D.P.B./D.E.
SCALE: AS NOTED
SHEET:



CUSTOM SIGN PRODUCED BY HUNT ELECTRIC

UTILITY COMPANY METER



EXISTING TRACKER PV SYSTEM MAIN AC DISCONNECT SWITCH (1 OF 2)



LABEL AND MARKINGS GENERAL NOTE:

A. SIGNS PRODUCED BY HUNT ELECTRIC TO BE A IMPACT ACRYLIC SIGN WITH BLACK PRINTED LETTERS, TYPICAL. ALL OTHER LABELS TO BE PRE-PRINTED SOLAR LABELS RED BACKING WITH WHITE LETTERS.

LABEL AND MARKINGS LEGEND:

- ◇ A PROVIDES THE LOCATION OF THE SERVICE DISCONNECTING MEANS AND THE PHOTOVOLTAIC DISCONNECTING MEANS. THIS PLAQUE SHALL BE APPLIED AT THE MAIN PHOTOVOLTAIC AC SERVICE DISCONNECTING MEANS; 1 PER POCC (1 TOTAL).
- ◇ B WARNING LABEL FOR UTILITY COMPANY METER; 1 PER UTILITY METER. (1 TOTAL).
- ◇ C EXISTING PHOTOVOLTAIC SYSTEM MAIN AC DISCONNECT SWITCH WARNING LABEL WITH SYSTEM SPECIFICATIONS, APPLIED TO PHOTOVOLTAIC MAIN AC DISCONNECTS; 1 PER AC DISCONNECT (1 TOTAL).
- ◇ D NEW PHOTOVOLTAIC SYSTEM MAIN AC DISCONNECT SWITCH WARNING LABEL WITH SYSTEM SPECIFICATIONS, APPLIED TO PHOTOVOLTAIC MAIN AC DISCONNECTS; 1 PER AC DISCONNECT (1 TOTAL).
- ◇ E PHOTOVOLTAIC SYSTEM AC COMBINER PANEL WARNING LABEL, APPLIED TO THE AC COMBINER PANEL; 1 PER PANEL (1 TOTAL).
- ◇ F PHOTOVOLTAIC SYSTEM AC DISCONNECT WARNING LABEL WITH SYSTEM SPECIFICATIONS, APPLIED TO ALL PHOTOVOLTAIC AC DISCONNECTS; 1 PER AC DISCONNECT (7 TOTAL).
- ◇ G PHOTOVOLTAIC INVERTER WARNING LABELS APPLIED TO ALL INVERTERS; 1 PER INVERTER (7 TOTAL).
- ◇ H PHOTOVOLTAIC ELECTRICAL SYSTEM WARNING, IDENTIFYING ENERGIZED ELECTRICAL LINES THAT CONNECT THE SOLAR MODULES TO THE INVERTER. ELECTRICAL SHOCK HAZARD, DC CONDUCTORS OF THIS PHOTOVOLTAIC SYSTEM MAY BE ENERGIZED. 1 PER CONCEALED FEEDER MARKED EVERY 10 FEET.
- ◇ J LABEL FOR SECURITY OF PV SYSTEM ARRAY PERIMETER; INSTALL SIGNAGE AT PERIMETER OF ARRAY.

NEW PV SYSTEM MAIN AC DISCONNECT SWITCH (2 OF 2)



PV SYSTEM AC COMBINER PANEL



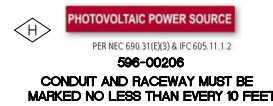
PV SYSTEM AC DISCONNECT SWITCH



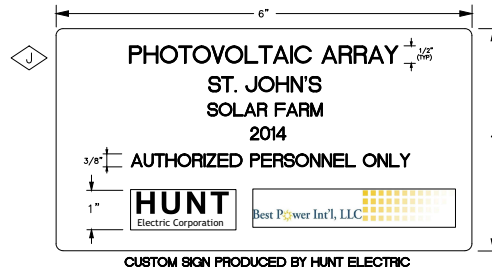
PV SYSTEM INVERTER



PV SYSTEM SOLAR ELECTRIC FEEDERS



PV SYSTEM ARRAY PERIMETER SIGNAGE



CUSTOM SIGN PRODUCED BY HUNT ELECTRIC

I HEREBY CERTIFY THAT THIS PLAN SPECIFICATION OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

DANIEL PAUL BISSARD
LICENSE # 28752 DATE: 8-13-14

NO.	REVISION	DATE
	REVISED XCEL SET	8-18-14
	REVISED UT METER LABEL	9-11-14
	ELECTRICAL CONST. SET	10-8-14

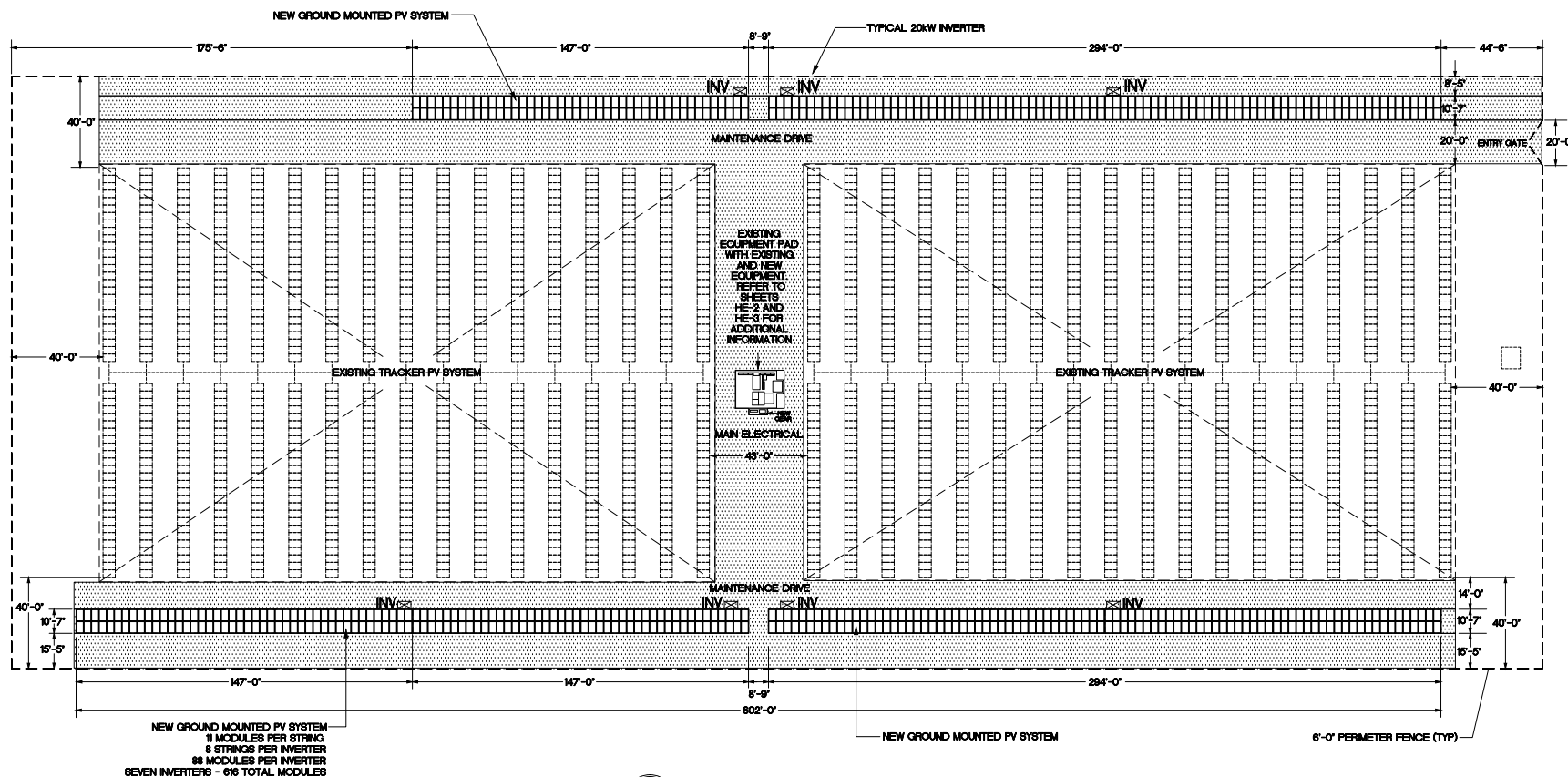
WARNING LABEL SHEET

JOB NO.: 599150E
DATE: 8-13-2014
DESIGN: SJG
CHECKED: D.P.B./D.E.
SCALE: AS NOTED
SHEET:

GENERAL NOTES

- REFER TO DETAIL 2/HE-2 (PV SYSTEM RISER) FOR BASIC SCOPE OF WORK SHOWING INTERCONNECTION OF EXISTING AND NEW PV SYSTEMS.
- REFER TO DETAIL 1/HE-2 (PV SYSTEM ONE-LINE) FOR DETAILED INFORMATION INCLUDING FIXED PV ARRAY, CABLING AND EQUIPMENT.
- REFER TO SHEET HE-3 (ISSUED FOR REFERENCE ONLY) FOR EXISTING TRACKING PV SYSTEM AND AC EQUIPMENT INFORMATION.
- REFER TO DIM RACKING DRAWINGS FOR RACKING LAYOUT DIMENSIONS. INFORMATION ON THIS SHEET FOR SITE LAYOUT ARE APPROXIMATE.

SYSTEM SUMMARY	
MODULE MODEL	TRINA SOLAR TSM-PD14
MODULE STC DC RATING	295 WATTS
MODULE PER SOURCE CIRCUIT	11 MODULES PER STRING
TOTAL MODULE COUNT	616
DC SYSTEM VOLTAGE	600V.
MAXIMUM SYSTEM VOLTAGE	480V.
TOTAL STC-DC SYSTEM SIZE	181,720 W.
TOTAL AC SYSTEM SIZE	140,000W.
INVERTER MODEL NO.	SMA SUNNY TRIPOWER 2000TL-US (OR EQUIVALENT)
TOTAL INVERTER COUNT	7
RACKING SYSTEM	DFW
AZIMUTH ANGLE	0°
MODULE TILT ANGLE	35°



1 PV ARRAY LAYOUT
HE-1 SCALE 1" = 20'-0"

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

DATE: PAUL BISSON
LICENSE # 26752 DATE: 8-13-14

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	REVISED UT METER LABEL	9-11-14
	ELECTRICAL CONST SET	10-8-14

PV ARRAY LAYOUT

JOB NO.	59910DE
DATE	8-13-2014
DESIGN	SJD
CHECKED	D.P.B.D.E.
SCALE	AS NOTED
SHEET	



CERTIFICATE OF SERVICE

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

xx 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. E002/M-14-___

MISCELLANEOUS ELECTRIC SERVICE LIST

Dated this 19th day of December 2014

/s/

Tiffany Hughes

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
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	No	GEN_SL_Northern States Power Company dba Xcel Energy-Elec_Xcel Miscl Electric
Christopher	Anderson	canderson@allete.com	Minnesota Power	30 W Superior St Duluth, MN 558022191	Electronic Service	No	GEN_SL_Northern States Power Company dba Xcel Energy-Elec_Xcel Miscl Electric
James J.	Bertrand	james.bertrand@leonard.com	Leonard Street & Deinard	150 South Fifth Street, Suite 2300 Minneapolis, MN 55402	Electronic Service	No	GEN_SL_Northern States Power Company dba Xcel Energy-Elec_Xcel Miscl Electric
Michael	Bradley	mike.bradley@lawmoss.com	Moss & Barnett	150 S. 5th Street, #1200 Minneapolis, MN 55402	Electronic Service	No	GEN_SL_Northern States Power Company dba Xcel Energy-Elec_Xcel Miscl Electric
Jeffrey A.	Daugherty	jeffrey.daugherty@centerpointenergy.com	CenterPoint Energy	800 LaSalle Ave Minneapolis, MN 55402	Electronic Service	No	GEN_SL_Northern States Power Company dba Xcel Energy-Elec_Xcel Miscl Electric
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	No	GEN_SL_Northern States Power Company dba Xcel Energy-Elec_Xcel Miscl Electric
Sharon	Ferguson	sharon.ferguson@state.mn.us	Department of Commerce	85 7th Place E Ste 500 Saint Paul, MN 551012198	Electronic Service	No	GEN_SL_Northern States Power Company dba Xcel Energy-Elec_Xcel Miscl Electric
Burl W.	Haar	burl.haar@state.mn.us	Public Utilities Commission	Suite 350 121 7th Place East St. Paul, MN 551012147	Electronic Service	No	GEN_SL_Northern States Power Company dba Xcel Energy-Elec_Xcel Miscl Electric
Michael	Hoppe	il23@mtn.org	Local Union 23, I.B.E.W.	932 Payne Avenue St. Paul, MN 55130	Electronic Service	No	GEN_SL_Northern States Power Company dba Xcel Energy-Elec_Xcel Miscl Electric
Tiffany	Hughes	Regulatory.Records@xcelenergy.com	Xcel Energy	414 Nicollet Mall FL 7 Minneapolis, MN 554011993	Electronic Service	No	GEN_SL_Northern States Power Company dba Xcel Energy-Elec_Xcel Miscl Electric

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Alan	Jenkins	aj@jenkinsatlaw.com	Jenkins at Law	2265 Roswell Road Suite 100 Marietta, GA 30062	Electronic Service	No	GEN_SL_Northern States Power Company dba Xcel Energy-Elec_Xcel Miscl Electric
Richard	Johnson	Rick.Johnson@lawmoss.com	Moss & Barnett	150 S. 5th Street Suite 1200 Minneapolis, MN 55402	Electronic Service	No	GEN_SL_Northern States Power Company dba Xcel Energy-Elec_Xcel Miscl Electric
Mark J.	Kaufman	mkaufman@ibewlocal949.org	IBEW Local Union 949	12908 Nicollet Avenue South Burnsville, MN 55337	Electronic Service	No	GEN_SL_Northern States Power Company dba Xcel Energy-Elec_Xcel Miscl Electric
Thomas G.	Koehler	TGK@IBEW160.org	Local Union #160, IBEW	2909 Anthony Ln St Anthony Village, MN 55418-3238	Electronic Service	No	GEN_SL_Northern States Power Company dba Xcel Energy-Elec_Xcel Miscl Electric
Michael	Krikava	mkrikava@briggs.com	Briggs And Morgan, P.A.	2200 IDS Center 80 S 8th St Minneapolis, MN 55402	Electronic Service	No	GEN_SL_Northern States Power Company dba Xcel Energy-Elec_Xcel Miscl Electric
Douglas	Larson	dlarson@dakotaelectric.com	Dakota Electric Association	4300 220th St W Farmington, MN 55024	Electronic Service	No	GEN_SL_Northern States Power Company dba Xcel Energy-Elec_Xcel Miscl Electric
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	No	GEN_SL_Northern States Power Company dba Xcel Energy-Elec_Xcel Miscl Electric
Pam	Marshall	pam@energycents.org	Energy CENTS Coalition	823 7th St E St. Paul, MN 55106	Electronic Service	No	GEN_SL_Northern States Power Company dba Xcel Energy-Elec_Xcel Miscl Electric
Andrew	Moratzka	apmoratzka@stoel.com	Stoel Rives LLP	33 South Sixth Street Suite 4200 Minneapolis, MN 55402	Electronic Service	No	GEN_SL_Northern States Power Company dba Xcel Energy-Elec_Xcel Miscl Electric
David W.	Niles	david.niles@avantenergy.com	Minnesota Municipal Power Agency	Suite 300 200 South Sixth Street Minneapolis, MN 55402	Electronic Service	No	GEN_SL_Northern States Power Company dba Xcel Energy-Elec_Xcel Miscl Electric

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Richard	Savelkoul	rsavelkoul@martinsquires.com	Martin & Squires, P.A.	332 Minnesota Street Ste W2750 St. Paul, MN 55101	Electronic Service	No	GEN_SL_Northern States Power Company dba Xcel Energy-Elec_Xcel Misc Electric
Ken	Smith	ken.smith@districtenergy.com	District Energy St. Paul Inc.	76 W Kellogg Blvd St. Paul, MN 55102	Electronic Service	No	GEN_SL_Northern States Power Company dba Xcel Energy-Elec_Xcel Misc Electric
Ron	Spangler, Jr.	rlspangler@otpc.com	Otter Tail Power Company	215 So. Cascade St. PO Box 496 Fergus Falls, MN 565380496	Electronic Service	No	GEN_SL_Northern States Power Company dba Xcel Energy-Elec_Xcel Misc Electric
Byron E.	Starns	byron.starns@leonard.com	Leonard Street and Deinard	150 South 5th Street Suite 2300 Minneapolis, MN 55402	Electronic Service	No	GEN_SL_Northern States Power Company dba Xcel Energy-Elec_Xcel Misc Electric
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	GEN_SL_Northern States Power Company dba Xcel Energy-Elec_Xcel Misc Electric
Eric	Swanson	eswanson@winthrop.com	Winthrop Weinstine	225 S 6th St Ste 3500 Capella Tower Minneapolis, MN 554024629	Electronic Service	No	GEN_SL_Northern States Power Company dba Xcel Energy-Elec_Xcel Misc Electric
Lisa	Veith	lisa.veith@ci.stpaul.mn.us	City of St. Paul	400 City Hall and Courthouse 15 West Kellogg Blvd. St. Paul, MN 55102	Electronic Service	No	GEN_SL_Northern States Power Company dba Xcel Energy-Elec_Xcel Misc Electric