



March 1, 2019

—Via Electronic Filing—

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

RE: RESPONSE TO MPUC INFORMATION REQUEST No. 1

SOLAR*REWARDS PROGRAM & RULES ON COGENERATION AND SMALL

POWER PRODUCTION

E002/M-13-1015 & E002/M-16-222

Dear Mr. Wolf:

At Minnesota Public Utilities Commission request, we have e-filed our response to the information request in the above-noted dockets. Please contact Jessica Peterson at Jessica.k.peterson@xcelenergy.com or (612)330-6850 if you have any questions regarding this filing.

Sincerely,

/s/

SHAWN M. WHITE MANAGER, DSM & RENEWABLE REGULATORY STRATEGY AND PLANNING

Enclosures c: Service List

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Xcel Energy

Docket No.: E002/M-13-1015 & E002/M-16-222

Response To: MN Public Utilities Information Request No. 1

Commission

Requestor: Michelle Rosier
Date Received: February 19, 2019

Question:

Proposed Business Practice for Net Metering Rate Eligibility

- a) Please explain how the Company's proposed business practice change in determining net metering rate eligibility is consistent with how DER capacity is determined under Minn. Stat. 216B.164; Subd. 2a(c) and the Minnesota Distributed Energy Resource Interconnection Process (MN DIP) as filed in the November 30, 2018 Notice in Docket No. E002/M-18-714. (See MN DIP Glossary of Terms and 5.14.3). If it is not, please explain why the proposed business practice is appropriate.
- b) Under the proposed change to business practice, would a customer with an existing 40 kW solar array on the EXCESS GENERATION-AVERAGE RETAIL UTILITY ENERGY SERVICE (A50) rate be required to change rates if they added a 10 kW non-exporting storage system? Please explain why.

Response:

a) Net Metering eligibility capacity is not necessarily the same as the DER Nameplate Rating capacity as defined by the MN DIP. Technical review capacity found in process eligibility limits are not applied in the same manner as qualifying facility capacity eligibility. The rules and definitions that evolved around each are unique to the application. For example, it is possible for a site to contain multiple installed DER units, with some individual units being eligible as a Qualifying Facility (QF) while others are not. The total aggregate AC Nameplate Rating of the site as applied to MN DIP would be the total nameplate capacity of all DER, including QFs. In this situation, the aggregate QF capacity could be smaller than the aggregate site DER Nameplate Rating capacity. The MN DIP definition of Nameplate Rating, and maximum AC capacity in Section 5.14.3, relate to the aggregate DER power producing capabilities at a site. The maximum producing capability for MN DIP process

eligibility is determined by a DER nameplate rating. The aggregate nameplate rating of QFs at a site determines the total capacity which is compared against the net metering eligibility limit. Similar to how MN DIP process track eligibility is determined; the QF *nameplate rating* is used for determining QF eligibility rather than the *maximum AC capacity* referenced in MN DIP Section 5.14.3. This is aligned with the definition in Minnesota Public Utilities Commission Rules.

Our net metering rate codes (A50 – A56) apply a capacity restriction based on the capacity of the QF. A QF is defined by Minnesota Public Utilities Commission rules (Minn. R. 7835.0100) that in turn points to 18 CFR, Part 292, that states in part, "... the power production capacity of a facility for which qualification is sought, together with the power production capacity of any other small power production facilities that use the same energy resource, are owned by the same person(s) or its affiliates, and are located at the same site...." Therefore, if the same site has two or more DER systems powered by the same energy resource (like solar) and are owned by the same person or its affiliates, then these are considered to be part of the same QF.

The IR asks about the following definitions and provisions:

- The term "capacity" is defined at Minn. Stat. §216B.164, Subd. 2a(c) that states: "Capacity" means the number of megawatts alternating current (AC) at the point of interconnection between a distributed generation facility and a utility's electric system.
- The MN DIP Glossary of Terms provides the following definition: Nameplate Rating nominal voltage (V), current (A), maximum active power (kWac), apparent power (kVA), and reactive power (kvar) at which a DER is capable of sustained operation. For a Local EPS with multiple DER units, the aggregate nameplate rating is equal to the sum of all DERs nameplate rating in the Local EPS, not including aggregate capacity limiting mechanisms such as coincidence factors, plant controller limits, etc. that may be applicable for specific cases (Aggregate Nameplate Rating). The nameplate ratings referenced in the MN DIP are alternating current nameplate DER ratings. See Section 5.14 on Capacity of the Distributed Energy Resource and Minnesota Technical Requirements.

- MN DIP 5.14 states:

- 5.14 Capacity of the Distributed Energy Resource
 - 5.14.1 If the Interconnection Application is for an increase in capacity for an existing DER, the Interconnection Application shall be evaluated on the basis of the new total alternating current ("AC") capacity of the Distributed Energy Resource. The

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

None of these definitions or provisions modify the definition of QF, nor do any of these definitions alter how our net metering tariff is to be applied.

b) Under the provisions of our tariff, the A50 rate code is only available to a QF that has a capacity under 40 kW. The capacity is determined by the AC nameplate rating of the aggregate onsite QF. While this may be the same nameplate rating as would be used for process track eligibility, as defined by MN DIP, the two eligibility limits based on capacity are not related. Similar, the concept of 'maximum AC capacity' described in MN DIP is not related to the QF capacity. A QF at or over 40 kW in capacity is not entitled to participate in the A50 rate code. If there currently is a DER system on site that is just less than 40 kW and that participates in the A50 rate code, and in the future this customer adds a 10kW non-exporting storage system, then the issue is whether the non-exporting storage system capacity is considered to be part of the QF capacity. If it is not considered to be QF capacity, then the customer may remain on the A50 rate code. Our understanding under current rules is that whether a non-exporting storage system is considered to be a QF would depend on the type of resource powering the storage. If the storage is being powered by the on-site renewable distributed generation that is from a QF, then it is supplementing the capacity of the QF and the two systems should be aggregated together for purposes of determining the QF capacity and eligibility under the A50 tariff. If on the other hand the storage is being powered by energy from the grid, then it is not QF capacity and should not be aggregated

together with QF capacity for purposes of determining eligibility under the A50 tariff.

Preparer: Jessica Peterson

Title: Sr. Regulatory Analyst
Department: Customer Solutions

Telephone: 612.330.6850 Date: March 1, 2019

CERTIFICATE OF SERVICE

- I, Paget Pengelly, hereby certify that I have this day served copies of the foregoing document on the attached list of persons.
 - <u>xx</u> by depositing a true and correct copy thereof, properly enveloped with postage paid in the United States mail at Minneapolis,
 Minnesota; or
 - <u>xx</u> by electronic filing.

Docket Nos.: E002/M-13-1015 & E002/M-16-222

Dated this 1st day of March.

Paget Pengelly
Regulatory Administrator

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Herbert	Minke	hminke@allete.com	Minnesota Power	30 W Superior St Duluth, MN 55802	Electronic Service	No	OFF_SL_16-222_Official Service List 16-222

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
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Dalene	Monsebroten	dalene@mncable.net	Northern Municipal Power Agency	123 2nd St W Thief River Falls, MN 56701	Electronic Service	No	OFF_SL_16-222_Official Service List 16-222
Andrew	Moratzka	andrew.moratzka@stoel.co m	Stoel Rives LLP	33 South Sixth St Ste 4200 Minneapolis, MN 55402	Electronic Service	No	OFF_SL_16-222_Official Service List 16-222
Ben	Nelson	benn@cmpasgroup.org	СММРА	459 South Grove Street Blue Earth, MN 56013	Electronic Service	No	OFF_SL_16-222_Official Service List 16-222
Carl	Nelson	cnelson@mncee.org	Center for Energy and Environment	212 3rd Ave N Ste 560 Minneapolis, MN 55401	Electronic Service	No	OFF_SL_16-222_Official Service List 16-222
Dale	Niezwaag	dniezwaag@bepc.com	Basin Electric Power Cooperative	1717 East Interstate Avenue Bismarck, ND 58503	Electronic Service	No	OFF_SL_16-222_Official Service List 16-222
David	Niles	david.niles@avantenergy.c om	Minnesota Municipal Power Agency	220 South Sixth Street Suite 1300 Minneapolis, Minnesota 55402	Electronic Service	No	OFF_SL_16-222_Official Service List 16-222
Rolf	Nordstrom	rnordstrom@gpisd.net	Great Plains Institute	2801 21ST AVE S STE 220 Minneapolis, MN 55407-1229	Electronic Service	No	OFF_SL_16-222_Official Service List 16-222
Samantha	Norris	samanthanorris@alliantene rgy.com	Interstate Power and Light Company	200 1st Street SE PO Box 351 Cedar Rapids, IA 524060351	Electronic Service	No	OFF_SL_16-222_Official Service List 16-222

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
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Russell	Olson	rolson@hcpd.com	Heartland Consumers Power District	PO Box 248 Madison, SD 570420248	Electronic Service	No	OFF_SL_16-222_Official Service List 16-222
Priti	Patel	ppatel@grenergy.com	Great River Energy	12300 Elm Creek Blvd Maple Grove, MN 55369-4718	Electronic Service	No	OFF_SL_16-222_Official Service List 16-222
Dan	Patry	dpatry@sunedison.com	SunEdison	600 Clipper Drive Belmont, CA 94002	Electronic Service	No	OFF_SL_16-222_Official Service List 16-222
Jeffrey C	Paulson	jeff.jcplaw@comcast.net	Paulson Law Office, Ltd.	4445 W 77th Street Suite 224 Edina, MN 55435	Electronic Service	No	OFF_SL_16-222_Official Service List 16-222
Joyce	Peppin	joyce@mrea.org	Minnesota Rural Electric Association	11640 73rd Ave N Maple Grove, MN 55369	Electronic Service	No	OFF_SL_16-222_Official Service List 16-222
Mary Beth	Peranteau	mperanteau@wheelerlaw.c	Wheeler Van Sickle & Anderson SC	44 E. Mifflin Street, 10th Floor Madison, WI 53703	Electronic Service	No	OFF_SL_16-222_Official Service List 16-222
Jennifer	Peterson	jjpeterson@mnpower.com	Minnesota Power	30 West Superior Street Duluth, MN 55802	Electronic Service	No	OFF_SL_16-222_Official Service List 16-222
Hannah	Polikov	hpolikov@aee.net	Advanced Energy Economy Institute	1000 Vermont Ave, Third Floor Washington, DC 20005	Electronic Service	No	OFF_SL_16-222_Official Service List 16-222

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
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Mark	Rathbun	mrathbun@grenergy.com	Great River Energy	12300 Elm Creek Blvd Maple Grove, MN 55369	Electronic Service	No	OFF_SL_16-222_Official Service List 16-222
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John C.	Reinhardt		Laura A. Reinhardt	3552 26Th Avenue South Minneapolis, MN 55406	Paper Service	No	OFF_SL_16-222_Official Service List 16-222
Kevin	Reuther	kreuther@mncenter.org	MN Center for Environmental Advocacy	26 E Exchange St, Ste 206 St. Paul, MN 551011667	Electronic Service	No	OFF_SL_16-222_Official Service List 16-222
Michael	Riewer	MRiewer@otpco.com	Otter Tail Power Company	PO Box 4496 Fergus Falls, MN 56538-0496	Electronic Service	No	OFF_SL_16-222_Official Service List 16-222
Robert K.	Sahr	bsahr@eastriver.coop	East River Electric Power Cooperative	P.O. Box 227 Madison, SD 57042	Electronic Service	No	OFF_SL_16-222_Official Service List 16-222
Richard	Savelkoul	rsavelkoul@martinsquires.c om	Martin & Squires, P.A.	332 Minnesota Street Ste W2750 St. Paul, MN 55101	Electronic Service	No	OFF_SL_16-222_Official Service List 16-222
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First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
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Christopher	Schoenherr	cp.schoenherr@smmpa.or g	SMMPA	500 First Ave SW Rochester, MN 55902-3303	Electronic Service	No	OFF_SL_16-222_Official Service List 16-222
Kay	Schraeder	kschraeder@minnkota.com	Minnkota Power	5301 32nd Ave S Grand Forks, ND 58201	Electronic Service	No	OFF_SL_16-222_Official Service List 16-222
Dean	Sedgwick	N/A	Itasca Power Company	PO Box 455 Spring Lake, MN 56680	Paper Service	No	OFF_SL_16-222_Official Service List 16-222
Maria	Seidler	maria.seidler@dom.com	Dominion Energy Technology	120 Tredegar Street Richmond, Virginia 23219	Electronic Service	No	OFF_SL_16-222_Official Service List 16-222
William	Seuffert	Will.Seuffert@state.mn.us		75 Rev Martin Luther King Jr Blvd 130 State Capitol St. Paul, MN 55155	Electronic Service	No	OFF_SL_16-222_Official Service List 16-222
David	Shaffer	shaff081@gmail.com	Minnesota Solar Energy Industries Project	1005 Fairmount Ave Saint Paul, MN 55105	Electronic Service	No	OFF_SL_16-222_Official Service List 16-222
Patricia F.	Sharkey	N/A	Midwest Cogeneration Association	P.O. Box 87374 Carol Stream, IL 60188	Paper Service	No	OFF_SL_16-222_Official Service List 16-222
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First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
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Mrg	Simon	mrgsimon@mrenergy.com	Missouri River Energy Services	3724 W. Avera Drive P.O. Box 88920 Sioux Falls, SD 571098920	Electronic Service	No	OFF_SL_16-222_Official Service List 16-222
Anne	Smart	anne.smart@chargepoint.c om	ChargePoint, Inc.	254 E Hacienda Ave Campbell, CA 95008	Electronic Service	No	OFF_SL_16-222_Official Service List 16-222
Ken	Smith	ken.smith@districtenergy.c om	District Energy St. Paul Inc.	76 W Kellogg Blvd St. Paul, MN 55102	Electronic Service	No	OFF_SL_16-222_Official Service List 16-222
Joshua	Smith	joshua.smith@sierraclub.or		85 Second St FL 2 San Francisco, California 94105	Electronic Service	No	OFF_SL_16-222_Official Service List 16-222
Trevor	Smith	trevor.smith@avantenergy.com	Avant Energy, Inc.	220 South Sixth Street Suite 1300 Minneapolis, Minnesota 55402	Electronic Service	No	OFF_SL_16-222_Official Service List 16-222
Ken	Smith	ken.smith@ever- greenenergy.com	Ever Green Energy	305 Saint Peter St Saint Paul, MN 55102	Electronic Service	No	OFF_SL_16-222_Official Service List 16-222
Beth H.	Soholt	bsoholt@windonthewires.or g	Wind on the Wires	570 Asbury Street Suite 201 St. Paul, MN 55104	Electronic Service	No	OFF_SL_16-222_Official Service List 16-222
Sky	Stanfield	stanfield@smwlaw.com	Shute, Mihaly & Weinberger	396 Hayes Street San Francisco, CA 94102	Electronic Service	No	OFF_SL_16-222_Official Service List 16-222

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Byron E.	Starns	byron.starns@stinson.com	Stinson Leonard Street LLP	50 S 6th St Ste 2600 Minneapolis, MN 55402	Electronic Service	No	OFF_SL_16-222_Official Service List 16-222
James M.	Strommen	jstrommen@kennedy- graven.com	Kennedy & Graven, Chartered	470 U.S. Bank Plaza 200 South Sixth Stree Minneapolis, MN 55402	Electronic Service	No	OFF_SL_16-222_Official Service List 16-222
Eric	Swanson	eswanson@winthrop.com	Winthrop & Weinstine	225 S 6th St Ste 3500 Capella Tower Minneapolis, MN 554024629	Electronic Service	No	OFF_SL_16-222_Official Service List 16-222
Thomas P.	Sweeney III	tom.sweeney@easycleane nergy.com	Clean Energy Collective	P O Box 1828 Boulder, CO 80306-1828	Electronic Service	No	OFF_SL_16-222_Official Service List 16-222
Lynnette	Sweet	Regulatory.records@xcele nergy.com	Xcel Energy	414 Nicollet Mall FL 7 Minneapolis, MN 554011993	Electronic Service	No	OFF_SL_16-222_Official Service List 16-222
Steve	Thompson	stevet@cmpasgroup.org	Central Minnesota Municipal Power Agency	459 S Grove St Blue Earth, MN 56013-2629	Paper Service	No	OFF_SL_16-222_Official Service List 16-222
Stuart	Tommerdahl	stommerdahl@otpco.com	Otter Tail Power Company	215 S Cascade St PO Box 496 Fergus Falls, MN 56537	Electronic Service	No	OFF_SL_16-222_Official Service List 16-222
Pat	Treseler	pat.jcplaw@comcast.net	Paulson Law Office LTD	4445 W 77th Street Suite 224 Edina, MN 55435	Electronic Service	No	OFF_SL_16-222_Official Service List 16-222
Lise	Trudeau	lise.trudeau@state.mn.us	Department of Commerce	85 7th Place East Suite 500 Saint Paul, MN 55101	Electronic Service	No	OFF_SL_16-222_Official Service List 16-222

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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	OFF_SL_16-222_Official Service List 16-222
Roger	Warehime	warehimer@owatonnautiliti es.com	Owatonna Public Utilities	208 South WalnutPO Box 800 Owatonna, MN 55060	Electronic Service	No	OFF_SL_16-222_Official Service List 16-222
Jenna	Warmuth	jwarmuth@mnpower.com	Minnesota Power	30 W Superior St Duluth, MN 55802-2093	Electronic Service	No	OFF_SL_16-222_Official Service List 16-222
Robyn	Woeste	robynwoeste@alliantenerg y.com	Interstate Power and Light Company	200 First St SE Cedar Rapids, IA 52401	Electronic Service	No	OFF_SL_16-222_Official Service List 16-222
Daniel P	Wolf	dan.wolf@state.mn.us	Public Utilities Commission	121 7th Place East Suite 350 St. Paul, MN 551012147	Electronic Service	Yes	OFF_SL_16-222_Official Service List 16-222
Thomas J.	Zaremba	TZaremba@wheelerlaw.co m	WHEELER, VAN SICKLE & ANDERSON	44 E. Mifflin Street, 10th Floor Madison, WI 53703	Electronic Service	No	OFF_SL_16-222_Official Service List 16-222
Christopher	Zibart	czibart@atcllc.com	American Transmission Company LLC	W234 N2000 Ridgeview Pkwy Court Waukesha, WI 53188-1022	Electronic Service	No	OFF_SL_16-222_Official Service List 16-222