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May 26, 2016



Daniel P. Wolf Executive Secretary Minnesota Public Utilities Commission 121 7<sup>th</sup> Place East, Suite 350 St. Paul, MN 55101-2147

RE: In the Matter of Utilities' Annual Reports on Progress in Achieving the Solar Energy Standard
Docket Number E999/M-16-342

Dear Mr. Wolf:

In response to the Minnesota Public Utilities Commission Notice issued May 20, 2016 in above described matter, Otter Tail Power Company hereby submits its Solar Energy Standard Report.

This filing has been served on all persons on the attached service list by electronic service or by First Class mail. A Certificate of Service is also enclosed.

Should you have any questions, please contact me at bhdraxten@otpco.com or (218) 739-8417.

Sincerely,

/s/ BRIAN DRAXTEN
Brian Draxten
Manager Resource Planning

nlo
Enclosures
By Electronic filing
c: Service List



# OTTER TAIL POWER COMPANY Annual Report on Progress in Achieving the Solar Energy Standard 2015 DOCKET NO. E999/M-16-342

Otter Tail Power Company (Otter Tail or Company) submits this report in compliance with the Minnesota Public Utilities Commission's Order issued October 23, 2014 in the above described docket.

1) Annual Minnesota retail sales for the previous calendar year:

Minnesota retail sales 2,383,370 MWh

2) Annual excluded customer sales for the previous year:

Estimated excluded customer sales

0 MWh

3) A list of customers requesting exclusion from the requirements of the SES, the NAICS code associated with their manufacturing activity and their annual kWh usage:

At this time, the Company has not had any customers request the exclusion from the SES requirements. The Company has projected a list of customers we believe will qualify for the exclusion.

4) The total Minnesota retail sales for customers excluded from the SES requirement:

Minnesota retail sales less estimated excluded sales: 2,383,370 MWh (Note: The Company interprets this to be 2015 energy sales less exempt customers.)

5) Annual solar generation on the utilities' system for the previous calendar year (including the total number of units registered in M-RETS to that utility and S-RECs generated in the past year from those units):

The Company had a total of 96 MWh of solar generation for the year of 2015. The Company has one small solar facility registered in M-RETS at this time.

# 6) Estimated amount of solar generation (expressed as capacity) a utility would be required to obtain in 2020:

The Company estimates that 30 MW of nameplate solar capacity would be needed to meet the Company's SES requirements. This assumes Company MN retail sales of 2,709,000 MWh in 2020 less estimated excluded sales of 84,632 MWh and a 15 percent net capacity factor for solar generation facilities.

### 7) Estimated solar energy requirements to meet the SES in 2020:

The Company estimates that 39,366 MWh of solar energy will be needed to meet the Company's SES requirements in 2020.

# 8) Short summary of ongoing efforts to obtain solar energy (including a brief summary of the anticipated mix of project sizes for SES compliance):

The Company has had discussions with various solar developers about projects that could be in operation prior to the end of 2019 to take advantage of the 30% ITC. The solar renewable energy credit (SREC) market has not yet evolved and may prove to be a more cost effective way for Otter Tail to meet Minnesota's solar mandate. In addition, Otter Tail intends to continue operating as one integrated system with one resource mix. Otter Tail will evaluate solar as well as other resources to meet our customers' future need for energy in the most cost-effective manner while satisfying regulatory requirements in all the jurisdictions in which it serves.

#### 9) Progress towards the ten (10) percent carveout for systems less than 20 kw:

Research covering residential and commercial solar PV market potential indicates that meeting the ten percent carve out by 2020 will be a challenge for Otter Tail and its customers.

The Company continues to evaluate strategies to meet the ten percent carve out for systems less than 20 kW in size. The Company believes that multiple approaches and programs will need to be implemented to meet the ten percent carve out by 2020. The

Company's objective in this legislative requirement is to meet the objective as cost effectively as possible while minimizing upward pressure on customer rates and cross subsidization between different classes of ratepayers. The Company is monitoring forecasts from numerous sources in the solar industry indicating a continued decline in costs of solar PV systems.

Otter Tail is working with a university to install a 20 kW solar PV system. Otter Tail and the university have formed a partnership to use the 20 kW solar PV system to promote educational opportunities on the campus and throughout the community. Developing this project has helped Otter Tail to recognize the need for additional community solar education opportunities. In April 2016, Otter Tail filed a modification to its 2016 Conservation Improvement Program (CIP) to include incentives for Publically Owned Property Solar (POP Solar) projects. The POP Solar program is an example of universal solar which shares the benefits of solar with all members of the community, university, public school, tribal properties, or other public owned properties.

In addition to the POP Solar program in CIP, Otter Tail has researched many strategies to meet the solar carve out. These strategies include a utility-scale solar PV project with customer subscriptions to generation benefits; added funding from Otter Tail to the Made in Minnesota account above and beyond legislative requirements; and Otter Tail administering its own solar incentive program outside of CIP. At this time the Company is unsure of the appropriate mechanism to recover the costs of solar PV incentive programs that are not included within CIP. The Company looks forward to future interaction with Minnesota policy makers and regulators to identify an appropriate recovery mechanism. The Company anticipates that next year's SES report will have greater detail on the expected mix of project sizes and plans to meet the SES requirements.

# 10) Brief summary of the state (s) in which the solar generation is located or anticipated to be located:

For customer-owned and Company-owned solar generating facilities or purchased power agreement (PPA) facilities, the Company expects those facilities to be located within the three states the Company serves (Minnesota, North Dakota and South Dakota). If solar renewable energy credit (S-REC) procurement proves to be a component of a cost effective means to meet the SES, then the solar facilities could be located outside of the three states the company serves.

#### 11) Purchases and sales of S-RECs to meet the SES.

Otter Tail has not purchased any S-RECs to date. If S-REC procurement proves to be a component of a cost effective means to meet the SES, then Otter Tail would consider purchasing S-RECs.

# 12) A breakdown of solar RECs generated in the previous calendar year under each of the following categories:

#### a. Facilities receiving the Value of Solar rate

The Company does not have a Value of Solar rate in place at this time.

#### b. Community Solar Gardens

The Company does not have a Community Solar Garden in place at this time.

#### c. Facilities under a Net metering tariff

The Company has 18 customer-owned solar facilities with a nameplate capacity totaling 166 kW with generation of 96 MWh for the year 2015. Four of the customer-owned facilities (with solar generation totaling 46 MWh in 2015) are on tariffed rates in either North Dakota or South Dakota where the tariff allows for the customer to retain the RECs and the customer has chosen to do so.

### d. Utility-owned solar projects

The Company does not have any utility-owned solar projects at this time.

### e. Solar facilities that have entered into a PPA with the utility

The Company does not have any solar PPAs at this time.

## f. Facilities receiving an incentive, such as SolarRewards or Made in Minnesota

Otter Tail contributed \$116,741 toward the Made in Minnesota program in January 2015. For 2015, one Otter Tail customer was selected by the lottery process to receive incentives from the Made in Minnesota fund. Otter Tail currently has three customers in total receiving payments from the Made in Minnesota fund. At this time Otter Tail has not provided any other incentives outside of the Made in Minnesota program to solar facilities.

### **CERTIFICATE OF SERVICE**

RE: In the Matter of Utilities' Annual Reports on Progress in Achieving the Solar Energy Standard
Docket Number E999/M-16-342

I, Nancy L. Olson, hereby certify that I have this day served a copy of the following, or a summary thereof, on Daniel P. Wolf and Sharon Ferguson by e-filing, and to all other persons on the attached service lists by electronic service or by first class mail.

Otter Tail Power Company Report

Dated this 26th day of May, 2016.

/s/ NANCY L. OLSON

Nancy L. Olson Regulatory Filing Coordinator Otter Tail Power Company 215 South Cascade Street Fergus Falls MN 56537 (218) 739-8376

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