

Minnesota Public Utilities Commission

Staff Briefing Papers

Meeting Date: October 5, 2017.....**Agenda Item #7

Company: Electric Utilities Subject to Minnesota’s Solar Energy Standard, Minn. Stat. [§216B.1691, Subd. 2f](#)

Docket No. **E999/M-17-283**
E999/CI-13-542

In the Matter of Utilities’ Annual Reports on Progress in Achieving the Solar Energy Standard

In the Matter of the Implementation of Solar Energy Standards Pursuant to 2013 Amendments to Minnesota Statutes, Section 216B.1691

Issue: What action should the Commission take on the utilities’ fourth annual solar energy standard reports?

Should the Commission allow Xcel Energy to count Community Solar Garden Subscriptions of under 20 kW towards their Small Scale Solar Carve Out under Minn. Stat. 216B.1691 Subd. 2f? Should the Commission otherwise Modify Xcel Energy’s requirement under 216B.1691 Subd. 2f?

Should the Commission take any other action?

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Relevant Documents

Order Clarifying Solar Energy Standard Requirements and Setting Annual Reporting Requirements, Docket No. E999/CI-13-542..... April 25, 2014

Annual Reports (Public and Trade Secret)

Otter Tail Power..... May 31, 2017
Minnesota Power June 1, 2017
Xcel Energy June 1, 2017

Response to Staff IRs

Otter Tail Power..... June 19, 2017
Minnesota Power June 20, 2017
Xcel Energy June 19, 2017

Comments

Department of Commerce.....	July 6, 2017
Minnesota Solar Industries Association (MnSEIA)	July 14, 2017
US Renewable Energy Credit Exchange (US REC-X).....	July 14, 2017
All Energy Solar	July 17, 2017

Reply Comments

Xcel Energy	July 31, 2017
Otter Tail Power.....	August 4, 2017

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Statement of the Issue

1. What action should the Commission take on the utilities' reports?
2. Should the Commission allow Xcel Energy to count Community Solar Garden Subscriptions of under 20 kW towards their Small Scale Solar Carve Out under Minn. Stat. 216B.1691 Subd. 2f? Should the Commission otherwise Modify Xcel Energy's requirement under 216B.1691 Subd. 2f?
3. Should the Commission take any other action?

Introduction and background

In 2013, legislation was passed which was codified as Minn. Stat. [§ 216B.1691, Subd. 2f](#), Minnesota's Solar Energy Standard (SES). The SES requires electric investor-owned utilities in Minnesota to procure 1.5% of their annual retail sales from solar energy.

That statute also states at Subd. 2f (g) that beginning in 2014 and through 2020, each of those utilities subject to the SES shall file a report with the Commission "reporting its progress in achieving the solar energy standard established under this subdivision."¹

The plain text of the statute gives little guidance on the information that should be in the reports, as long as it relates to a utility reporting its progress in achieving the solar standard. Therefore, the Commission solicited comments in [Docket E999/CI-13-542](#) on the content of the reports.

In two orders, the Commission outlined the information to be included in the reports. The list of reporting requirements can be found in Appendix A.

On June 1, 2017 the three IOUs (Minnesota Power, Otter Tail Power, and Xcel Energy) submitted their annual reports. In its annual report, Xcel also requested that the Commission make a determination on counting Community Solar Garden (CSG) subscriptions towards its compliance of the Small Scale Carve Out.

On May 30, 2017, the Governor signed SF 1456 (Laws of Minnesota 2017, Chapter 94, Article 10, Section 8) which amended the small scale carve out requirements for the standard, which impacted Minnesota Power and Otter Tail Power. The two utilities can now use small solar RECs from systems up to 40 kW in size to meet compliance, as well as community solar garden subscriptions of 40 kW or less. As the law was signed after the Annual Reports were due, Commission staff issued an IR asking the IOUs how the legislation would impact their forecasted compliance.

Utility Reports

All three utilities submitted reports based on the new templates developed by the Commission and Department. Below is a chart compiled by staff with figures from the utilities reports, including amount necessary to meet the standard, current generation capacity, and a breakdown SRECs generated by facility type. Note that the utilities submitted the report before SF was passed, which revised upwards the size

¹ The statute requires the reports to be filed by July 1 of each year. However, as is explained further, the Commission established the reports to be due by June 1 of each year, which no utility objected to. The June 1 deadline was chosen because other reports required as part of the RES are due June 1.

limit to systems of less than 40 kW for Minnesota Power and Otter Tail Power’s small scale carve out. However, the amount of generation each would need to procure remains the same.

The Department reviewed the annual reports, provided a summary of the utilities efforts and recommends the Commission accept the reports as complete.

Staff agrees with the Department that the utilities have fulfilled their statutory reporting requirement, and recommends that the Commission accept these reports as complete.

TABLE 1: SUMMARY OF UTILITY REPORTING, 2016

	Minnesota Power	Otter Tail Power	Xcel Energy
Retail and Excluded Sales	MW	MW	MW
1. Annual MN retail sales for the reporting year	8,181,381,814	2,545,813	30,289,190
2. Annual Excluded customer sales for the reporting year	5,144,285,982	66,181	0
3. Annual Minnesota retail sales less exclusions	3,037,095,832	2,479,632	30,289,190

Est amount of solar generation a utility would be required to obtain in 2020	MW	MWh	MW	MWh	MW	MWh
1. Entire 1.5% Standard	31	53,208	30	40,000	236	453,967
2. Small Scale Carve-Out (10% of 1.5%)	4	5,321	3	4,000	32	45,397
3. 2030 Goal of 10%	208	354,722	230	303,000	1,570	3,026,443

Solar Capacity Registered in M-RETS	MW	MW	MW
Less than 20kW	0.333	0.011	6.06
Greater than 20kW	10.119	0	168.15

Breakdown of S-RECS generated - total balance	2016	Total	2016	Total	2016	Total
1. Utility-owned solar projects	1,719	1,719	0	0	0	0
2. Solar Facilities that have entered into a PPA with the utility	0	0	0	0	18,911	18,911
3. Community Solar Gardens (ARR)						
a. Receiving an incentive (any type)	0	0	0	0	1	1
b. Not receiving an incentive	0	0	0	0	244	244
6. Facilities under a net metering tariff						
a. Receiving an incentive (any type)	271	347	0	0	8,607	13,373
b. Not receiving an incentive	0	0	6	18	0	0
Total	1,990	2,066	6	18	27,763	32,529

Minnesota Power

Minnesota Power intends to meet the SES in 2020 through banked SRECs and 23 MW of installed capacity. The Company expects this strategy to fulfill compliance through 2023, with any deficits to be met through SREC purchases. The Commission’s approved 2016 IRP requires Minnesota Power to add an additional 12 MW of solar by 2020, MP has expanded its SolarSense rebate program in an effort to meet the small scale carve out. In its response to Staff’s June 5 IR MP responded that while they can now count CSG subscriptions, it plans to continue with SolarSense rebates as the primary method of achieving the small scale carve out. The company does not expect to generate solar energy outside of the state at this time. Minnesota Power states that it “is well-positioned for compliance with its SES requirements in 2020.”

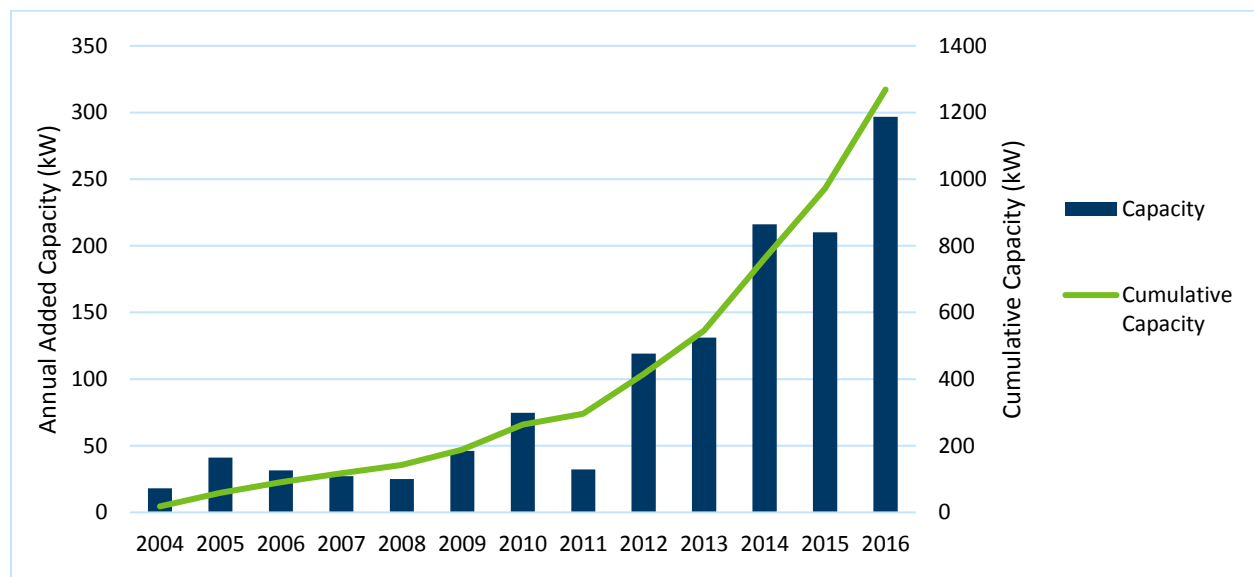
MnSEIA had the following comments about Minnesota Power’s path to compliance:

Minnesota Power, through its SolarSense program, has applied reasonable effort to attain compliance through construction in its service territory. So long as the program remains in place as is, or grows further, MnSEIA is generally supportive of Minnesota Power’s pathway to small-scale carve out compliance.

Staff Comment

As of 2016, Minnesota Power had over 1.2 MW of under 40 kW solar facilities installed in its service territory, although not all facilities are currently registered in M-RETS. MP has seen steady year over year small scale solar growth over the past decade and a half, as indicated through the figure below. Staff believes that Minnesota Power, through a combination of existing resources and banked SRECs will be able to meet its Small Scale Carve out in 2020.

FIGURE 1: MINNESOTA POWER, UNDER 40 kW SOLAR INSTALLATIONS²



² Docket No. E999/PR-17-10

Otter Tail Power

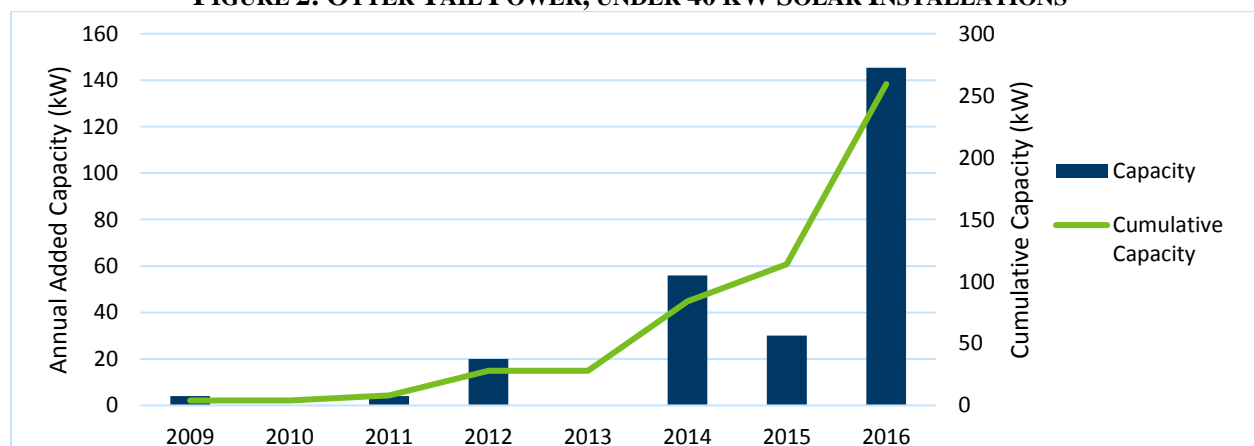
In its annual report, Otter Tail indicates while it is in talks with solar developers for a 20MW to 30MW array, it may purchase SRECs for SES compliance until solar is viewed as a least cost resource in all of its jurisdictions. Otter Tail also notes that meeting the small scale carve out will be a challenge, although it continues to work with its CIP solar incentive program, “POP Solar” (Public Owned Property) to install systems on public buildings. In its response to MPUC IR 1, Otter Tail replied that the increase in system sizes allowed towards the small scale carve out “is a significant positive change for Otter Tail’s compliance obligation” as several systems that qualified for Made in Minnesota, but were over 20 kW in size, now comply with the small scale carve out. Otter Tail indicated in its annual report that it plans to use SRECs from facilities within its three state territory, but is also contemplating SREC purchases in the broader M-RETS system if that proves to be cost effective.

In comments, MnSEIA expressed concerns that Otter Tail has not made substantive efforts to comply with the small scale carve out of the SES, especially as it indicates that it may purchase out of state SRECs for compliance. However, MnSEIA remains optimistic that Otter Tail can reach the small scale carve out with Minnesota sourced small SRECs (S-SRECs) due to the passage of 2017 legislation, and expect the company to pursue in-state options in line with the new statutory allowances.

Staff Comment

Otter Tail has made good progress since 2013 in increasing the amount of solar on its system. However, they still remain far short of the capacity and SRECs needed to comply with both the Small Scale Carve out and general SES requirement. Staff believes that Otter Tail is making a good faith effort in meeting the standard, but would like specific goals in next year’s report on where it plans on procuring S-SRECs in the event it is short in 2020. Currently, M-RETS has very few available S-SRECs that are not already registered to Xcel, Otter Tail, or Minnesota Power. Staff would also like to recognize that Otter Tail has a system that is substantially different than the other Minnesota IOUs, including its multi-state service territory. Furthermore, due to a large number of SES-exempt customers, Minnesota Power and Otter Tail have nearly identical SES requirements, despite Otter Tail having a much smaller number of customers.

FIGURE 2: OTTER TAIL POWER, UNDER 40 kW SOLAR INSTALLATIONS³



³ Docket No. E999/PR-17-10

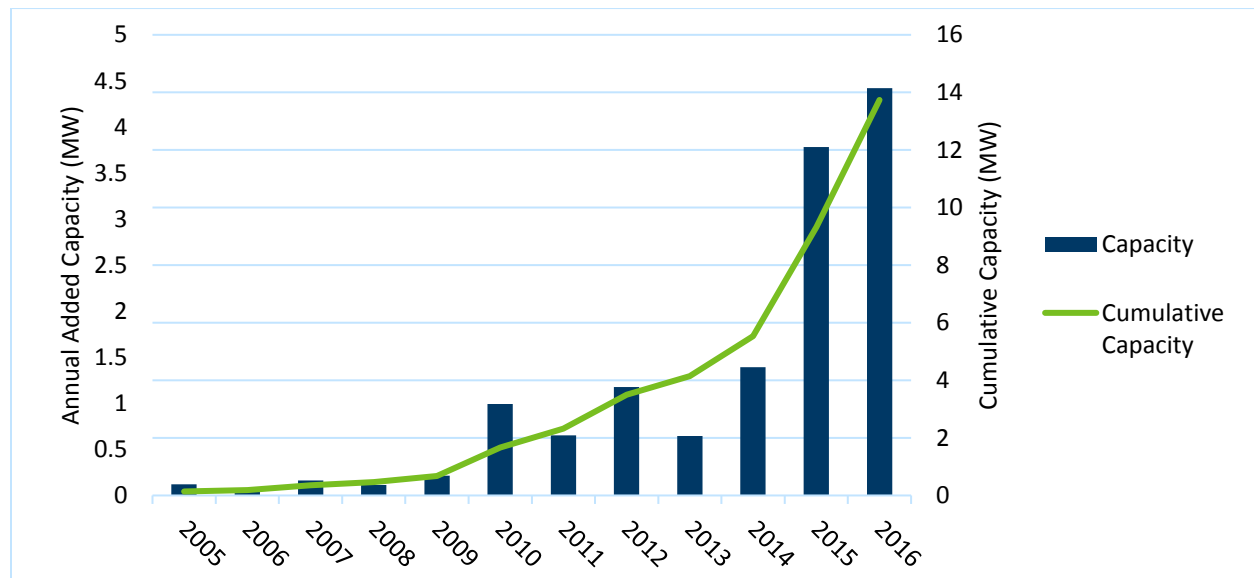
Xcel Energy

Xcel reports that by the end of 2017 it anticipates to have three large scale solar projects totaling over 260 MW online, giving it sufficient SRECs for 2020 compliance. However, Xcel also reports that it anticipates future problems meeting the small scale carve out, and as such is requesting a modification of the standard, as is discussed in a later section. In their response to Staff IR 1, Xcel maintains this position. Xcel also notes that the process for registering small scale solar systems in M-RETS remains burdensome, especially as the number of systems increases.

Staff Comment

Based on projections from Xcel's annual distributed generation reports, they will have ample capacity to meet the small scale carve out in 2020 and beyond. As Solar*Rewards customers start to regain control of their S-SRECs after their 10 year contracts run out, Xcel will need to find a way to re-procure those S-SRECs. However, they will still have enough small scale solar generating capacity on their system to remain in compliance.

FIGURE 3: XCEL ENERGY, UNDER 20 kW SOLAR INSTALLATIONS⁴



Other issues

Three parties (aside from the Department of Commerce) submitted comments in this docket on a variety of SES related issues. Staff summarizes them by issue area below.

Alternative SREC tracking system

US REC-X provided comments on an alternative to using M-RETS to track small systems:

US REC-X believes that the development of small, distributed energy projects can be accounted for with a more simple approach that allows for initial third party verification of projects and

⁴ Docket No. E999/PR-17-10

annual reporting by project owners that can be easily verified through digital, time-stamped pictures of the various monitoring devices that are routinely used in small projects but do not meet the higher technology threshold of utility scale projects.

In reply comments, Otter Tail responded to US REC-X's suggestion that an alternate tracking system be developed:

Part (d) of the statute allows all electric utilities to participate in a commission-approved credit tracking system. This statute led to the approval of the Midwest Renewable Energy Tracking System's (M-RETS) policies and protocols through a Commission led proceeding, Docket No. E999/CI-04-1616. The Minnesota Public Utilities Commission (MPUC) issued an order October 9, 2007, requiring all Minnesota utilities to participate in M-RETS for tracking of RECs.

M-RETS is an organization used by multiple states for the tracking and retirement of RECs. Multiple utilities including Otter Tail have registered SRECs both large-scale and small-scale in M-RETS to be used for SES compliance. The M-RETS system is working as designed. Any deviation from the use of M-RETS would undermine the many years of work by numerous stakeholders to make M-RETS a credible tracking system.

Staff Comment

Staff agrees with Otter Tail. Furthermore, M-RETS is in the process of updating their platform, which may further reduce burdens for small scale solar registration.

In-state solar for SES compliance

Both MnSEIA and US REC-X bring up that the SES, and in particular the small scale carve out, was passed to encourage solar development within the state of Minnesota.

US REC-X asks that the Commission "clarify that the solar energy legislation passed by the Minnesota Legislature was intended to benefit Minnesota jobs and clean energy" given that Otter Tail Power is contemplating purchasing SRECs that are not from Minnesota. US REC-X goes on to suggest that the IOUs look to untapped S-SREC sources within Minnesota, including from rural electric cooperatives.

MnSEIA points to 216B.1691 subd. 2f(f) as to why the SES compliance is an instate initiative:

[A] solar renewable energy credit associated with a solar photovoltaic device installed and generating electricity *in Minnesota* after August 1, 2013, but before 2020 may be used to meet the solar energy standard established under this subdivision. (emphasis added)

Otter Tail responded to MnSEIA's comments:

[T]he statute states, "A solar renewable credit associated with a solar photovoltaic device installed and generating electricity in Minnesota after August 1, 2013, but before 2020 "may" be used to meet the solar energy standard established under this subdivision". Otter Tail interprets any potential geographic reference to this section of statute as meaning that any renewable energy credits generated in Minnesota "may" be used to meet the solar energy standard, not that the solar renewable energy credits in Minnesota must exclusively be used for the purpose of meeting the solar energy standard.

...

[T]he statute is very clear that all eligible energy technologies must be treated equally and shall not be given more or less credit regardless of what state the energy was generated or regardless of the technology with which the energy was generated. This clearly allows for RECs from any state to be eligible for compliance in Minnesota, and secondly RECs from solar systems SRECs are eligible to count towards compliance in Minnesota. ...[I]t should be noted that the Minnesota policy makers were very deliberate in drafting this statute to ensure it did not discriminate or excessively burden interstate commerce which is protected by provisions of the United States' Interstate Commerce Clause.

Staff Comment

Staff suggests the Commission decline to require in-state solar for any utility subject to the SES, for two reasons. First, this docket is a reporting docket with a smaller service list, not appropriate for making significant legal or policy interpretations of the solar energy statute. Second, the Commission already clearly allowed out of state solar in a previous order in its generic SES docket, where it put the matter out for comment to a service list of diverse stakeholders.

In that generic SES docket, commenters (including out of state solar developers) raised policy reasons and Interstate Commerce clause concerns with a possible restriction of the SES to in-state solar. The Commission agreed with those concerns, clearly stating that S-RECs outside Minnesota would be treated the same as S-RECs within Minnesota:

Solar renewable energy credits attributable to generation facilities located outside Minnesota shall have a shelf life identical to the shelf life of credits attributable to Minnesota facilities.⁵

The Commission further stated that S-RECS must be generated from facilities registered in M-RETS to qualify for the SES, further reinforcing the point that facilities and S-RECs did not need to be restricted to Minnesota.

Staff agrees, however, with the commenters that it may be time to update some of the information in the SES reports since they were first filed, and there may be additional questions that could be put out for clarification in the generic SES docket. Staff has included some administrative decision options to this effect.

Should the Commission allow Xcel Energy to count solar garden subscriptions of 20 kW or less towards their small scale carve out, or modify the statutory obligation?

In their report, Xcel asked for a determination on using SRECs associated with Community Solar Garden subscriptions to fulfill its small scale solar carve out under 216B.1691 Subd. 2f. In its initial comments, Xcel indicated that while it could meet compliance in 2021, starting in 2022 it would fail to do so. In response to Staff IR 1 Xcel indicated that due to 2017 legislation⁶ it could now probably meet the

⁵ Ordering Paragraph 3, Docket E999/CI-13-542, Order Issued April 25, 2014.

⁶ Solar*Rewards funding was expanded through 2021, with an increase of funding to \$15 million for 2018, \$10 million for 2019 and 2020, and \$5 million for 2021.

requirement through 2028, but still requested that “the Commission allows solar garden subscriptions of 20 kW or less to be counted toward this requirement or modifies the requirement in recognition of the costs and extent of subscriptions in the solar gardens program.” Xcel also added that “the Company cannot predict what the market installation rate will be for small solar rooftop.”

Xcel indicates that modifying the standard is the public interest because:

1. The solar garden subscriptions of 20 kW or less meet the spirit of the small solar carve out legislation which is to promote residential and small commercial customer participation in the production of distributed solar generation.
2. The Solar*Rewards Community program has been undertaken at significant expense to our customers, and additional expense would be necessary to meet the small solar carve out if we are unable to use the solar garden subscriptions toward our requirement.
3. Significant funds have been spent to bring other small solar on to the system through the Solar*Rewards and Made in Minnesota programs.

The Company also claims that solar installations of under 20 kW in their service territory have decreased over time, and that current Solar*Rewards installation levels would have to nearly double to meet the carveout.

The Department had the following comments in response to Xcel’s proposal:

The Commission addressed the issue of applying individual CSG subscriptions towards the small solar carve-out requirement in its July 27, 2016 Order regarding Minnesota Power’s CSG Pilot Program.⁷ MP requested the ability to count its individual subscriptions of 20 kW or less towards its Small Solar Carve-out requirements under the SES Statute. At the time MP’s solar garden proposal was considered by the Commission, however, the small solar carve-out as stated above applied to MP. Under Minn. Stat. §216B.1641, CSGs may have a nameplate capacity of no more than 1 MW. In its July 27, 2016 Order, the Commission rejected MP’s request to allow CSG subscriptions of 20 kW or less to satisfy the small solar carve-out requirements, stating:

Allowing projects with generating systems of this size to satisfy this small-scale requirement is inconsistent with the plain language of the statute, and the purpose of the requirement - to promote small scale (*e.g.*, rooftop) distributed solar generation. The statute provides a means by which the Commission may delay or modify standard obligations if doing so is in the public interest, [Minn. Stat. 216B.1691, subd. 2b] so effectively undermining the statute’s goal of promoting small-scale solar, in anticipation of a possible failure to meet the under-20-kW SES requirement, is unwarranted.

⁷ *In the Matter of a Petition by Minnesota Power for Approval of a Community Solar Garden Pilot Program, Small-Scale Solar Energy Standard Compliance Eligibility, and a Method for Program Cost Recovery, Docket No. E015/M- 15-825, Order Approving Pilot Program with Modifications, July 27, 2016.*

The Commission's reasoning from its July 27th Order continues to hold true for Xcel. The Department recommends that the Commission reject Xcel's request to count CSG subscriptions less than 20 kW towards its small solar carve-out requirements.

MnSEIA's comments aligned with the Department's, while they also added that:

Xcel might meet its SES goal immediately, or in short order, if it can apply CSG subscription to the small-scale carve out... contrary to the intent of the SES small-scale carve out, which aims to encourage small distributed generation projects like rooftop solar.

Furthermore, MnSEIA adds that Xcel itself has indicated they will be able to meet its small scale requirements through 2029, and as such, "At this time, there is no demonstrated need for Xcel to receive an exemption from the SES small-scale carve out rules."

In reply comments, Xcel stated that the "decision needs to be made individually for each utility" in response to parties pointing to the Minnesota Power Order as precedent. Furthermore, they state that "the Commission has the option to modify the statutory obligation and allow the Company to use S*RC subscriptions to count towards the carve-out if it is in the public interest to do so." The Company claims that "using community solar garden subscriptions of 20 kW or less towards the carveout meets the spirit of the legislation which is to promote residential and small commercial customer participation in the production of distributed solar generation" and that it believes "the Company programs should be viewed equally in terms of compliance."

216B.1691 Subd. 2f states:

At least ten percent of the 1.5 percent goal must be met by solar energy generated by or procured from solar photovoltaic devices with a nameplate capacity of 20 kilowatts or less.

Staff Comment

Staff agrees with the Department's analysis, including the Commission's order in Docket No. 15-825 and cannot think of any reason why Xcel's request differs from Minnesota Power's.

Staff would also like to address the statutory requirements for modification of the standard. Xcel is asking for a modification of the Solar Energy Standard under 216B.1691 "in recognition of the costs" from the Community Solar Garden Program created under 216B.1641. Xcel has not outlined what type of modification they are seeking, only that they are requesting one. Thus, their request appears to be incomplete.

216B.1691 provides conditions the Commission must consider when deciding whether it will delay or modify the standard. The Commission affirmed in its April 25, 2014 Order that subd. 2b of that statute applies to the SES.⁸

⁸ Docket No. 13-542, Order, Clarifying Solar Energy Standard Requirements and Setting Annual Reporting Requirements, April 25, 2014. "Finally, the Commission clarifies that its investigative and enforcement authority under Minn. Stat. §216B.1691, subd. 7 applies in the event of utility noncompliance with the SES, under the authority conferred in subd. 2f (b), which states that "[t]he solar energy standard established in this subdivision is subject to all the provision of this section governing a utility's standard obligation under subdivision 2a."

Subd. 2b. **Modification or delay of standard.** (a) The commission shall modify or delay the implementation of a standard obligation, in whole or in part, if the commission determines it is in the public interest to do so. The commission, when requested to modify or delay implementation of a standard, must consider:

- (1) the impact of implementing the standard on its customers' utility costs, including the economic and competitive pressure on the utility's customers;
- (2) the effects of implementing the standard on the reliability of the electric system;
- (3) technical advances or technical concerns;
- (4) delays in acquiring sites or routes due to rejection or delays of necessary siting or other permitting approvals;
- (5) delays, cancellations, or nondelivery of necessary equipment for construction or commercial operation of an eligible energy technology facility;
- (6) transmission constraints preventing delivery of service; and
- (7) other statutory obligations imposed on the commission or a utility.

The commission may modify or delay implementation of a standard obligation under clauses (1) to (3) only if it finds implementation would cause significant rate impact, requires significant measures to address reliability, or raises significant technical issues. The commission may modify or delay implementation of a standard obligation under clauses (4) to (6) only if it finds that the circumstances described in those clauses were due to circumstances beyond an electric utility's control and make compliance not feasible.

(b) When considering whether to delay or modify implementation of a standard obligation, the commission must give due consideration to a preference for electric generation through use of eligible energy technology and to the achievement of the standards set by this section.

(c) An electric utility requesting a modification or delay in the implementation of a standard must file a plan to comply with its standard obligation in the same proceeding that it is requesting the delay.

Modification of the SES is serious undertaking and Staff does not think that the record is sufficiently developed in accordance with statute to modify or delay the Standard at this time. If a utility wishes to make a formal petition to modify or delay the standard, Staff believes that a separate filing in Docket 13-542, containing the required justifications noted above, should be made instead of through the annual reports.

Decision Options

1. Accept the utilities' 2016 Solar Energy Standard reports as complete. (*Department, Staff*)
2. Delegate authority to the Executive Secretary to modify the SES reporting form used by utilities to eliminate outdated questions and update information as needed. Direct staff to confer with stakeholders to determine if any further questions should be put out for comment in the Commission's generic SES docket, Docket E999/CI-13-542. (*Staff*)
3. Require Otter Tail in next year's report to report on either a facility install date or on a source for small SREC purchases to meet the SES. (*Staff*)

4. Deny Xcel's request to count CSG subscriptions less than 20 kW towards its small solar carve-out. (*Department, MnSEIA*)
OR
5. Allow the RECS generated under Xcel Energy customers' Solar*Rewards Community subscriptions of 20 kW or less to be applied to the small solar carve out requirement. (*Xcel*)

6. Find that SES compliance is an in-state initiative. (*MnSEIA*)
7. Clarify that the original intent of the 2013 (Minn. Stat. § 216B.1691) legislation was to invigorate the Minnesota solar industry by developing solar projects in Minnesota that benefit the Citizens of Minnesota. (*US REC-X*)
8. Find that the IOUs must submit annual numeric goals from 2017 to 2020 leading up to the 2020 SES small-scale carve out date. (*MnSEIA*)

Staff recommends decision options 1-4.

Appendix A: Complete SES Reporting Requirements

Complete SES Reporting Requirements
From April 25, 2014 Order, Ordering Paragraphs 4 and 5
Annual Minnesota retail sales for the previous calendar year
Annual excluded customer sales for the previous calendar year
A list of customers requesting exclusion from the requirements of the SES, the North American Industry Classification System (NAICS) code associated with their manufacturing activity, and their annual kWh usage
The total Minnesota retail sales for customers excluded from the SES requirement
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
Estimated amount of solar generation (expressed as capacity) a utility would be required to obtain in 2020
Estimated solar energy requirements to meet the SES in 2020
A short summary of ongoing efforts to obtain solar energy, including a brief summary of the anticipated mix of project sizes for SES compliance
A summary of progress toward compliance with the ten percent carve out for systems under 20 kW
A brief summary of the state(s) in which the solar generation is located or anticipated to be located
Purchases and sales of S-RECs to meet the SES
The SES annual reports shall also include a breakdown of S-RECs, identifying which credits were associated with each of the following: <ul style="list-style-type: none"> • Facilities receiving a Value of Solar rate; • Community Solar Gardens; • Facilities under a net metering tariff; • Utility-owned solar projects; • Solar facilities that have entered into a purchased power agreement with the utility; and • Facilities receiving an incentive, such as Solar Rewards or Made in Minnesota.
From October 23, 2014 Order Accepting SES Reports
Excluded sales only from customers that have requested and been approved by utilities for exclusion from the Solar Energy Standards requirements
Additional information supporting each utility's assumed capacity factor
More detailed information on each utility's ongoing efforts to obtain solar energy on their systems
Information on the effective load carrying capability and MISO capacity accreditation for existing or planned solar facilities
Additional discussion on any challenges utilities face in registering small solar facilities
A discussion of how utilities weigh the uncertainty of the solar investment tax credit benefit to awaiting the potential for technology improvements which may reduce the costs of adding solar resources