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February 24, 2015

Mr. Daniel P. Wolf
Executive Secretary
Minnesota Public Utilities Commission
121 Seventh Place East, Suite 350
St. Paul, Minnesota 55101

RE: **Comments of the Minnesota Department of Commerce, Division of Energy Resources**
Docket No. E002/M-13-867

Dear Mr. Wolf:

On February 13, 2015, the Minnesota Public Utilities Commission (Commission) issued a Notice Seeking Comments in the above-referenced Docket. Attached are the comments of the Minnesota Department of Commerce, Division of Energy Resources (Department) in this matter.

Sincerely,

/s/ HOLLY LAHD
Rate Analyst

/s/ SUSAN L. PEIRCE
Rate Analyst

HL/SP/ja
Attachment

BEFORE THE MINNESOTA PUBLIC UTILITIES COMMISSION

**COMMENTS OF THE
MINNESOTA DEPARTMENT OF COMMERCE
DIVISION OF ENERGY RESOURCES**

DOCKET No. E002/M-13-867

I. BACKGROUND INFORMATION

In its February 10, 2015 letter, Northern States Power Company d/b/a Xcel Energy (Xcel or the Company) raised concerns with the response to its recent Solar*Rewards Community, community solar garden tariff. Specifically, Xcel raised concerns that the ability of garden operators to locate multiple 1 MW solar gardens in close proximity to each other resulted in the creation of large utility-scale solar projects. In addition, the Company expressed concern that the bill credit rates established by the Commission, when combined with the ability of solar gardens to co-locate next to each other, would result in significant rate impacts to customers, assuming that all of the projects are built.

The Department offers the following comments on the issues of rate pressure and solar garden co-location.

II. RATE PRESSURE

In its February 10, 2015 letter, Xcel raised concerns with the bill impacts to its customers of adding 430 MW of Solar Rewards Community (SRC) projects, and provided its estimate of the bill impact if all of these projects were built.

The Department has concerns with some of the assumptions Xcel made in its rate impact analysis. Specifically, the Company compared the bill credit rate for the Solar Rewards Community to the avoided cost rate available to qualifying facilities (QFs) of 100 kW or less, and to QF's with capacity greater than 100 kW only if firm power is provided. As Xcel notes, most of the proposed solar projects are much larger than 100 kW. Further, to qualify as providing firm power, these facilities would need to have on-peak capacity factors of at least 65 percent; a capacity factor that a 1 MW solar facility may not achieve.

Consequently, the appropriate comparison based on information available at this time is between a solar garden average bill credit of \$120 per MWh and the \$73 per MWh levelized cost that Xcel disclosed for the three utility-scale solar bids in the recent Solar Acquisition Docket (Docket No. E002/M-14-162). Using this figure would reduce the rate impact from Xcel's 1.5 to 1.8 percent to 0.92 to 1.17 percent.

In addition, Xcel assumed a 19 percent capacity factor for the solar projects, but in Xcel's July 11, 2014 report on its solar energy standard (Docket No. E999/M-14-321), Xcel assumed a 17 percent capacity factor. Thus, the Department concludes that the 17 percent capacity factor should be used until updated production data or accreditation from the Midcontinent Independent System Operator is available. Correction of this factor reduces the bill impact further, to 0.83 to 1.05 percent.

Finally, given the interconnection issues discussed in the Commission's February 13, 2015 Order in this docket, the likelihood that all proposed projects will make it through the interconnection process may be small.

Although the Department's analysis suggests a smaller rate impact, the Department acknowledges Xcel's concerns with the potential for solar garden participants to increase costs for non-subscribers. Xcel noted a disproportionate level of participation by large commercial customers; while changing the bill credit rate for large commercial customers currently subscribed to a SRC is not possible as it would constitute retroactive ratemaking, considering changes on a going-forward basis may be reasonable. One way to reduce the rate impact may be to use the Value of Solar rate as a transparent methodology intended to reflect the combined value to the utility, its customers and society of solar facilities. The Commission may wish to consider whether Value of Solar rates or other rate methodologies are a more reasonable means of compensating large commercial customers' participation in the SRC program on a going-forward basis.

The Department acknowledges that the SRC program is new, with many unknowns about participation barriers and incentives. The Department recommends that Xcel be required to provide a breakdown of existing SRC subscribers by customer class in reply comments in order to better gauge the mix of customers participating in the SRC program, and to provide an update of this breakdown for existing and new applications on a quarterly basis. Such a breakdown could assist the Commission to understand better the mix of participating customers, and the significance large commercial customers play in the customer mix.

The Department may offer additional recommendations on how to address rate impact concerns in reply.

III. MULTIPLE SOLAR GARDENS AT ONE SITE

Xcel also raised concerns about the co-location of multiple solar gardens at one site, and questioned whether the co-location matches the intent of the community solar garden statute. The statute states that a solar garden must have a nameplate capacity of no more than one megawatt; the statute is silent on locating multiple solar gardens in close proximity to each other.

The Commission considered the issue of siting multiple solar gardens in close proximity in its September 17, 2014 Order in this docket:

The Commission concurs with Fresh Energy that the definition of “community solar garden site” should expressly state that solar gardens may be sited near each other in order to share distribution infrastructure. This clarification will allow solar gardens to be built more cost-effectively and is consistent with the statutory mandate that the program reasonably allow for the creation, financing, and accessibility of solar gardens.

The Commission also agrees with SunEdison that replacing the term “point of interconnection” with “point of common coupling,” a term that is defined and used elsewhere in Xcel’s tariffs, will add clarity to the definition of “community solar garden site.”

Accordingly, the Commission will require Xcel to replace the current definition of “community solar garden site” with the following definition:

“Community Solar Garden Site” is the location of the single point of common coupling located at the production meter for the Community Solar Garden associated with the parcel or parcels of real property on which the PV System will be constructed and located, including any easements, rights of way, and other real-estate interests reasonably necessary to construct, operate, and maintain the garden. Multiple Community Solar Garden Sites may be situated in close proximity to one another in order to share in distribution infrastructure.

The Department considers the Commission’s recent February 13, 2015 Order on the community solar interconnection application process to be helpful in evaluating the issue of siting multiple gardens in close proximity to each other. As noted in the Order, Xcel’s Section

9 Cogeneration tariff governs the Solar*Rewards Community program, and Xcel's Section 10 Distributed Resources tariff governs the interconnection process for distributed resources with a nameplate rating of 10 MW or less interconnecting to the Company's distribution system. In reviewing the engineering processing of community solar garden applications submitted under the Section 9 tariff, in its February 13, 2015 Order in this docket, the Commission found that only community solar garden applications deemed complete per the Section 10 tariff would advance to engineering review that all Section 10 applications receive.

For engineering review, the Department understands that Xcel engineers review co-located solar gardens as one system to evaluate the total projects' impacts on the distribution system. However, if the combined co-located gardens total over 10 MWs in capacity, it does not appear that Xcel's Section 10 tariff interconnection process can process the interconnection request. The Department understands that the interconnection of facilities with more than 10 MWs of nameplate capacity may require MISO involvement to ensure the interconnection does not affect the transmission system.

Given the relationship between the Sections 9 and Section 10 tariffs, the Department recommends that the Commission consider co-located solar gardens that collectively exceed 10 MW of nameplate capacity as out of scope with Xcel's distribution system interconnection requirements. Using 10 MW as a cut-off point is consistent with the distributed nature of community solar gardens. According to Table 1 of Xcel's January 31, 2015 *Supplemental Comments* in this docket, 16 proposed solar garden sites are at or above 10 MW nameplate capacity.

IV. DEPARTMENT RECOMMENDATIONS

The Department recommends that the Commission:

- Require Xcel to provide a breakdown by customer class of community solar garden subscribers in reply, and to update the breakdown on a quarterly basis.
- Determine that co-located solar gardens that collectively exceed 10 MW of nameplate capacity are outside the scope of Xcel's distribution system interconnection requirements.

The Department may offer additional recommendations in reply comments.

/ja

CERTIFICATE OF SERVICE

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

MINNESOTA DEPARTMENT OF COMMERCE – COMMENTS

Docket Nos. **E002/M-13-867**

Dated this **24th** day of **February, 2015**.

/s/Linda Chavez

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