

**STATE OF MINNESOTA
BEFORE THE PUBLIC UTILITIES COMMISSION**

Beverly Jones Heydinger	Chair
Betsy Wergin	Vice Chair
Nancy Lange	Commissioner
Dan Lipschultz	Commissioner
John Tuma	Commissioner

In the Matter of the Petition of Northern States Power Company for Approval of its Proposed Community Solar Gardens Program

DOCKET NO. E002/M-13-867

COMMENTS OF THE OFFICE OF THE ATTORNEY GENERAL - RESIDENTIAL UTILITIES AND ANTITRUST DIVISION

I. INTRODUCTION

The Office of the Attorney General – Residential Utilities and Antitrust Division (“OAG”) submits the following comments regarding the policy issues raised in the February 10, 2015 letter of Northern States Power Company (“Xcel”). After reviewing Xcel’s letter and the initial comments of other parties, the OAG wishes to highlight for the Commission two aspects of the Community Solar Garden (“CSG”) program that could be detrimental to rates paid by residential and small business ratepayers. First, it appears that the CSG program, as currently structured, could cause significant cost increases for residential and small business customers, and may cause these customers to pay large subsidies for solar garden facilities that predominantly benefit large customers. Second, the current interconnection process for CSG facilities does not appear to promote efficient use of these resources, potentially creating the need to develop costly and duplicative generation facilities in the future. The OAG encourages the Commission to carefully consider these potential effects of the CSG program, to monitor the program closely as it develops, and to make appropriate modifications as necessary to ensure that residential and small business customers are not unfairly impacted.

II. THE CSG PROGRAM MAY SUBSTANTIALLY INCREASE ENERGY COSTS FOR RESIDENTIAL AND SMALL BUSINESS CUSTOMERS.

While Xcel's CSG Program was approved months ago and has begun receiving and processing applications, the program is still very much in its infancy. No solar garden has yet begun construction, much less become operational. Accordingly, predicting the impacts of the program with any specificity is difficult. Despite these limitations, the current information suggests that the CSG program could push the cost of high bill credit payments onto residential and small business customers.

It appears undisputed that the CSG program will cause some increased energy costs for customers that do not subscribe to a solar garden, but the various parties dispute the level of these increased costs. Xcel's preliminary calculations indicate that the CSG program could increase fuel clause payments by more than \$50 million, leading to overall bill increases of between 1.5 and 1.8 percent.¹ The Department of Commerce ("DOC") disputes several of Xcel's assumptions and concludes that overall bill increases would be between 0.83 and 1.05 percent.² As multiple disputes between various parties suggest, the precise level of increased energy costs from the CSG program is not known.³ All that is known is that the existing bill credit rate is sufficient—or more than sufficient—to drive substantial interest in solar garden development and to allow companies to obtain the necessary financing to construct these facilities.

¹ Xcel's February 10, 2015 letter at 5.

² DOC's February 24, 2015 Comments at 2.

³ The estimates by Xcel and the DOC assume that all 431 megawatts of solar garden capacity that has been applied for will come online; because the DOC and other parties question this assumption, the estimates may be inaccurate. See DOC's February 24, 2015 Comments at 2; Sunshare, LLC's February 24, 2015 Comments at 10; MN Community Solar, LLC's February 24, 2015 Comments at 4; Minnesota Solar Energy Industry Association's February 24, 2015 Comments at 5; Fresh Energy, Environmental Law & Policy Center, Institute for Local Self Reliance, and Izaak Walton League of America's February 24, 2015 Joint Comments at 4. If some of these gardens are not built, the overall bill increases could be much smaller. Moreover, some interveners suggest that Xcel's preliminary calculation does not account for the benefits of CSG projects. Solar Garden Community's February 24, 2015 Comments at 9.

While the level of overall bill increases is not known, it appears that the residential and small business service classes could bear the brunt of any increased costs that are realized. Xcel notes that, based on media coverage and anecdotal knowledge, it anticipates that the majority of the CSG subscriptions already sold will go to large commercial or industrial customers—a claim that does not appear to be disputed.⁴ These large customers are likely more appealing to solar garden operators, since they consume greater quantities of energy and provide operators with a single point of contact, allowing them to sell numerous subscriptions with limited marketing. But by selling subscriptions exclusively or primarily to large customers, these developers funnel the benefits of the CSG program’s high bill credits to these classes, while requiring members of those classes left out of the subscription process to subsidize these high costs. Xcel suggests that entire service classes—such as the residential and small business classes—could be largely excluded, with these classes paying for the large bill credits flowing to other customers.⁵

Some parties have suggested that the large customers who have already purchased subscriptions will simply serve as “anchor tenants” that facilitate development of solar gardens and allow operators to allocate the remaining capacity to customers in low-use classes.⁶ No evidence has been submitted, however, suggesting that CSG operators will first attempt to secure an “anchor tenant” from the large commercial and industrial classes and then, once that tenant is secured, shift their marketing to low-use residential and small business customers. Rather, it seems more likely that solar garden operators who sell subscriptions to one or more large customers will continue to market to other large customers for the remaining capacity of their

⁴ Xcel’s February 10, 2015 letter at 4.

⁵ *Id.*

⁶ See Fresh Energy, Environmental Law & Policy Center, Institute for Local Self Reliance, and Izaak Walton League of America’s February 24, 2015 Joint Comments at 13; Minnesota Solar Energy Industry Association’s February 24, 2015 Comments at 8.

gardens. These large customers provide the same benefits to developers—a single point for the sale of multiple subscriptions—regardless of whether they are the first, second, or tenth customer of a CSG facility. For these reasons, while the overall bill impact of the CSG program is not known, it is likely that any costs of the CSG program will be felt to a greater degree by residential and small business customers. For this reason, the Commission should closely monitor the CSG program and consider whether future adjustments, such as lowering the bill credit rate, are needed going forward.

III. LIMITING INFORMATION ABOUT THE DISTRIBUTION SYSTEM MAY BE INCREASING THE RATES PAID BY ALL CUSTOMERS.

Currently, CSG developers apply to develop their proposed facilities in locations selected by the CSGs, who do not know where additional solar capacity would provide the greatest value on Xcel's distribution system. Numerous intervenors, along with the DOC, have recommended that the Commission require Xcel to provide CSG operators with greater detail about the company's distribution system before CSG developers apply, so that they can locate their facilities where they provide the greatest benefit.⁷ Xcel has not provided this information, claiming that doing so could compromise grid security.⁸ While the OAG recognizes the vital need to maintain a secure electrical grid, the current scheme may unreasonably increase the costs associated with CSGs while decreasing the benefits. Ultimately, this could lead to increased rates for all ratepayers.

Since solar provides intermittent generation, the benefits of solar on Xcel's distribution system depend, in part, on where solar installations are located. As a general matter, as the

⁷ *E.g.* DOC's November 6, 2013 Comments.

⁸ *See* Xcel's December 17, 2013 Reply Comments at 11. The Commission declined to require Xcel to provide solar-garden developers with additional information about its distribution system. Commission's April 7, 2014 Order at 12. Xcel's February 10, 2015 letter again raised issues related to interconnection and intervenors have again responded with their concerns about the information being provided and the process for interconnection. *See e.g.* IREC's February 24, 2015 Comments at 3-4.

distance between solar sites increases, the negative impact of solar's intermittency is reduced.⁹ This is important because, if poorly planned, solar's intermittency can create serious reliability issues on portions of the distribution system, which can require the utility to provide large amounts of reserve capacity.¹⁰ To provide this reserve capacity, the utility will likely need to construct costly reserve generation facilities, such as intermediate natural gas generators. The utility will then need to recover the costs of these facilities in future rates. Spreading out solar facilities reduces the negative impact of its intermittency and the need for reserve facilities.

Importantly, in addition to increasing costs for ratepayers, inefficiently integrating solar generation may provide a financial benefit for Xcel. By integrating solar in a non-optimal way and increasing the need for company-owned backup power, Xcel could increase its rate base; this would have the effect of raising profits for the company and rates for ratepayers. Moreover, by not providing data to CSG operators regarding its distribution system, Xcel may be acting in its own interest to increase the costs of CSG subscriptions. Without this data, an operator may apply to place a facility in specific location, only to discover later that the site is not compatible with its proposal, requiring the CSG to reapply for a different location. This process will likely increase the costs of constructing CSGs and, therefore, the costs of individual CSG subscriptions. Xcel benefits from increasing the costs of CSG subscriptions, since it provides substitute energy. Moreover, Xcel also may want to enter the CSG market and construct its own facilities. Without a transparent interconnection process, Xcel would have a competitive advantage in the CSG market since it could place facilities in the most cost-effective locations, while withholding data

⁹ Andrew Mills and Ryan Wiser, *An Evaluation of Solar Valuation Methods Used in Utility Planning and Procurement Processes*, a report prepared for the Office of Energy Efficiency and Renewable Energy Solar Energy Technologies Program U.S. Department of Energy Washington, D.C. and the Office of Electricity Delivery and Energy Reliability National Electricity Division U.S. Department of Energy Washington, D.C. (Dec. 2012).

¹⁰ Erin Baker, Meredith Fowlie, Derek Lemoine, and Stanley S. Reynolds, *The Economics of Solar Electricity*, *The Ann. Rev. of Resource Econ.* (2013).

that would allow competitors to do so. Providing information about the distribution system that does not cause unreasonable safety concerns¹¹ could enable solar-garden developers and Xcel to integrate solar generation in a more efficient and equitable manner. This type of coordination has happened before. Specifically, Xcel and Geronimo maximized the benefit of over 100 MW of solar by dispersing them in 2 MW to 10 MW parcels. According to Geronimo, the collaborative effort resulted in a “reduction in line loss, elimination of transmission costs, and geographic diversification of generation assets.”¹² These benefits are not assured under the current CSG program. Therefore, the Commission should consider ordering Xcel to work with solar garden developers—respecting the security required for a secure grid—to locate CSG’s where they will provide the greatest benefit to ratepayers.

IV. RECOMMENDATION

To address the concerns set forth above, the OAG recommends that the Commission closely follow the program’s implementation, and require Xcel to continue reporting on the rate impact the CSG program is having on the fuel clause adjustment as the applications move to the completed phase and bill credits and unsubscribed energy payments are made. The Commission should also consider making additional program improvements as necessary, such as adjusting the bill credit rate or requiring the use of the Value of Solar rate for community solar gardens to ensure that costs are equitable across all service classes.

As for the concerns related to interconnection and solar integration costs, the Commission should consider ordering Xcel to provide more information about the safety

¹¹ The safety of the distribution grid is of the utmost importance. However, Xcel has not provided any substantive discussion that explains the specific risks or why other states provide more information than Xcel does currently. In fact, Xcel provides more information in Colorado than it does in Minnesota. See IREC’s November 6, 2013 Comments at 3-5.

¹² See Geronimo Press Release: *Minnesota Public Utilities Commission Says Solar is Part of the Solution, Selects Geronimo’s Distribution Solar Proposal*, available at <http://www.geronimoenergy.com/wp-content/uploads/2015/02/MN-PUC-Selects-Aurora-for-Xcel-Needs-FINAL.pdf> (March 27, 2014).

concerns it is referring to and to contrast these concerns with other programs throughout the United States to ensure that the safety of the grid will not be compromised. While respecting legitimate security risks, the Commission should consider ordering Xcel to work more collaboratively with solar-garden developers to efficiently integrate solar generation into the distribution system in order to prevent unnecessary rate increases for residential and small business ratepayers.

Dated: March 4, 2015

Respectfully submitted,

LORI SWANSON
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s/ Ian Dobson

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March 4, 2015

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**RE: *In the Matter of the Petition of Northern States Power Company for Approval
of its Proposed Community Solar Gardens Program***
Docket No. E002/M-13-867

Dear Mr. Wolf:

Enclosed and e-filed in the above-referenced matter please find *Comments of the Office of the Attorney General - Residential Utilities and Antitrust Division*.

By copy of this letter all parties have been served. An Affidavit of Service is also enclosed.

Sincerely,

s/ Ian Dobson

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