414 Nicollet Mall
Minneapolis, MN 55401

February 10, 2015

**—Via Electronic Filing—**

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

RE: COMMENTS
COMMUNITY SOLAR GARDENS
DOCKET NO. E002/M-13-867

Dear Mr. Wolf:

Northern States Power Company, doing business as Xcel Energy, submits these Comments to bring to the Commission's attention a significant policy issue arising in the Solar*Rewards Community program and to propose ideas to address the issue for the Commission's consideration.

We have electronically filed this document with the Minnesota Public Utilities Commission, and copies have been served on the parties on the attached service list. Please contact me at aakash.chandarana@xcelenergy.com or (612) 215-4663 if you have any questions regarding this filing.

Sincerely,

/s/

AAKASH CHANDARANA
REGIONAL VICE PRESIDENT
RATES AND REGULATORY AFFAIRS

Enclosure
c: Service List

STATE OF MINNESOTA
BEFORE THE
MINNESOTA PUBLIC UTILITIES COMMISSION

| | |
|---|---|
| Beverly Jones Heydinger | Chair |
| Nancy Lange | Commissioner |
| Dan Lipschultz | Commissioner |
| John Tuma | Commissioner |
| Betsy Wergin | 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<br>**COMMENTS** |

## OVERVIEW

Northern States Power Company, doing business as Xcel Energy, submits these Comments to bring to the Commission's attention a significant policy issue arising in the Solar*Rewards Community (S*RC) program and to propose ideas to address the issue for the Commission's consideration. We file these Comments in advance of the extended Reply Comment period, which ends March 2, in order to give parties the opportunity to provide their thoughts in their Reply Comments.

Since our December 12th launch, we have received in excess of 430 MW of applications for community solar to date. At this rate, we expect that our program is poised to be the largest community solar program of its kind in the nation. We appreciate that this type of response may be exactly what was hoped for by the Commission, lawmakers, our customers and stakeholders, and solar developers. We too want this program to be a success, but believe it is also important to get the rules right in the program's infancy. This is particularly so in the context of high program volume when public interest concerns are potentially magnified.

The issue we bring forward is that many of these initial solar garden projects are "utility-scale" projects, meaning the projects are significantly larger than the types of projects we would expect to serve community-based, non-profit, or local organizations. As we noted in our January 13, 2015 Supplemental Comments, the majority of solar garden projects (approximately 96 percent) are equal to or greater than 1 MW. From a slightly different perspective, approximately 58 percent of the solar garden projects in the queue are greater than or equal to 10 MW.

Developers are accomplishing this by planning a utility-scale solar project, then solely for the purposes of meeting program requirements, designating each 1 MW portion as a single garden. While we recognize the Commission has provided guidance to allow for solar gardens to be sited near each other in order to share distribution infrastructure,[1] we believe the types of projects currently in the queue are not consistent with the expectations underlying and supporting the Commission's guidance for several reasons.

First, interconnecting "utility-scale" community solar garden projects presents technical and legal issues not previously contemplated. As we have noted in prior filings, we did not expect the initial project applications to exceed 400 MW or the size of most projects to be in excess of 1 MW. We believe many "utility-scale" projects will trigger needed improvements on our distribution system. Not only could this create significant construction and interconnection constraints, but it may also result in certain proposals being referred to the interconnection process managed by the Midcontinent Independent System Operator, Inc (MISO).

Second, we believe that the majority of solar garden projects currently in our queue are not consistent with the Legislative intent which gave rise to the community solar gardens statute, the Commission's Orders, or the program rules on this topic. We believe the purpose of the community solar garden legislation was to provide our residential and small business customers, who have limited land, capital and/or resources, access to distributed solar generation.

Lastly, we are concerned that the rate that has been established, when coupled with the program rules allowing for adjacent gardens, are stimulating "utility-scale" solar garden projects. This presents significant rate impacts to all of our customers. As we explain below, we believe our customers would see their respective bills increase by one and a half to two percent if all solar garden projects in the queue came on-line. We are concerned about this type of rate impact when consideration is given to the fact that competitively bid "utility-scale" solar projects cost half the current S*RC bill credit rate.

Moving forward with "utility-scale" community solar garden projects presents important policy considerations that would benefit from Commission clarification and action. In these Comments, we offer some ideas the Commission may wish to consider as it reviews the developments in this program to date. Our goal with presenting these ideas is that they will generate other proposals and a beneficial discussion so that the Company can continue to administer this program in a manner

[1] See September 17, 2014 Order Approving Solar Garden Plan with Modifications at p. 13-15.

that is transparent, consistent and beneficial to our customers. The Commission could ask for parties to address the issues raised here, as well as to bring forward possible solutions, in the upcoming March 2 Reply Comments, and then take action.

We also recognize that the Commission may wish to take no action since this is our Program to administer and manage. In that case, we will work to accommodate as much solar as the available capacity on the distribution system can accommodate and address our concerns with the Implementation Workgroup.

The rest of our Comments are organized as follows:

- *Operational Considerations* – we explain the complications created by interconnecting large, "utility-scale" solar projects to the distribution system.
- *Legislative Intent* – we explain the reasons we believe large, "utility-scale" solar projects are inconsistent with the legislative intent.
- *Rate Pressure* – we provide an analysis of the rate impacts to our customers from adding 430 MW of S*RC projects.
- *Aligning with the Public Interest* – we describe several potential solutions for addressing the development of large, "utility-scale" solar projects.

## COMMENTS

## A. Operational Considerations

As noted above, we believe that the attributes of the projects we are seeing resemble utility-scale solar development more than community-scale development. Solar developers are planning projects well above the statutory designation of a 1 MW garden. Projects of this size raise important questions. For example, in certain areas of our distribution system, interconnection of projects greater than 1 MW may cause a backflow to our transmission system. Our Section 10 Interconnection tariff states that requests may not exceed 10 MW, based on the aggregate of the total generation nameplate capacity. Based on the tariff, projects greater than 10 MW will be referred to MISO.[2]

[2] As a practical matter, it is not clear that any proposed solar garden would be allowed to proceed as a solar garden if it would be subject to MISO procedures. Under our Section 10 tariff, if the generation system nameplate capacity is greater than the expected distribution substation minimum load, then MISO procedures must be followed. (Tariff, Section 10, Sheet 83). The Section 10 tariff also recognizes the MISO requirement that where MISO's facilities are affected by the interconnection of a new generation facility to the distribution system that such an interconnection may be subject to the MISO planning and operating protocols. If the MISO process applies, the generation system is not eligible for review under Section 10 (Tariff, Section 10, Sheet 94).

The technical ability to interconnect large projects also raises challenging legal and regulatory questions. For example, questions of jurisdiction arise when an interconnection request is referred to MISO. Another example is that Federal Energy Regulatory Commission (FERC) has granted the Company's request to terminate its mandatory purchase obligation under PURPA for QFs larger than 20 MW.[3] This may implicate the state's jurisdiction in these matters.[4]

In short, we believe system impact questions are arising because large utility-scale development is being introduced where neither the system nor its governing policies are designed to handle it. We do not believe this was intended when the community solar discussion began in Minnesota.

## B. Legislative Intent

We believe community solar gardens are formed when neighbors join neighbors and share a solar array, sized up to 1 MW, at a central location near where they live or work. We also believe community solar was meant to expand access to the benefits of solar to customers who are traditionally unsuited to rooftop solar. These include customers who lack access to an appropriate roof location, are unable to afford the upfront costs of an installation, or are discouraged by system maintenance or other considerations.

### *1. Customers Excluded*

We do not know today who all of the subscribers will be to the projects that are being planned. Based on recent media coverage and anecdotal knowledge, we anticipate that the majority of subscribed production capacity will go to large commercial and industrial customers. We are concerned that there is potential for entire service classes to be largely excluded from participation if few gardens are poised to serve residential or small business customers. Many parties have commented in this docket about the meaning of the statute's requirement to allow for reasonable access to gardens. If the subscriber pool is imbalanced in terms of class of service, the program rules may not reflect the legislative intent.

[3] *Northern States Power Company*, 136 FERC ¶ 61,093 (2013).
[4] *California Pub. Utils. Comm'n*, 132 FERC ¶ 61,047 at P 64-67 and P 72 (2010). *See also* 18 C.F.R. § 292.204(a)(2), § 292.309(d)(1), § 292.601(c)(1).

*2. Developers Have Other Options for Large Scale Development*

We are concerned with the possibility that some developers are essentially skirting the PPA process, leveraging the cost attributes of utility-scale development, and securing benefits through a customer bill credit rate intended for small-scale development. We believe this dissonance between the legislative intent and the actual program activity may be eroding the value the program provides to the public.

We are certain large solar garden projects and their attendant system, regulatory, and legal implications far exceed the spirit of the community solar statute. This signals a need to revisit the rules that govern participation in our program.

## C. Rate Pressure

To further illustrate the Company's concern, we have attempted to quantify the financial impact of the program. We performed a preliminary analysis in order to estimate the impact of community solar on our customers' utility bills, included here as Attachment A. If 431 MW come online at current rates, we estimate that the Minnesota Fuel Clause will increase by over $50 million and Minnesota customers will see their cost of fuel rise by more than six percent. Customers will see a bill increase between one and a half and two percent.

We raise the question whether this degree of pressure on customer bills was foreseen or intended by the Legislature when it passed the community solar gardens statute. We believe this cost impact is particularly concerning where it is established that large-scale solar can be obtained on behalf of customers at about half the cost.

In addition to the costs to customers, the cost to the system is also a concern for the Company. For example, if a developer offers garden subscription pricing in the range of 90-98 percent of the bill credit rate, this offer could result in an annual savings of roughly $40,000 to $200,000 for a large commercial customer subscribing to the equivalent solar garden production of 20,000 MWh per year. If this customer's average retail rate was 9.456 cents per kWh, the customer would see a net energy savings ranging from 2 percent to nearly 12 percent. While this is a compelling offer for potential subscribers, it is important to note that this arrangement for a large commercial customer would add in excess of $1.4 million dollars of incremental cost to the system. Since the bill credit payments will be recovered through the fuel clause, all non-exempt Minnesota customers will, in essence, fund this customer's savings.

Since the bill credits are priced higher than the avoided energy cost and the cost of utility-scale solar, we are concerned about a scenario where relatively few large

customers achieve significant savings, at the expense of imposing higher costs on the rest of our Minnesota customer base.

In light of what we are seeing, we are concerned about further stimulating this market space with even higher bill credit rates. We will comment further on rates and incentives in our Reply Comments in this Docket, due March 2nd. We also put forward a few solutions we believe the Commission may wish to consider that might drive program activity that is more aligned with the public interest.

## D. Aligning with the Public Interest

### *1. Adjacent Garden Sites*

The Commission may wish to revisit the language in its September 17, 2014 Order which permitted multiple community garden sites to be situated in close proximity to one another. While the community solar gardens statute is silent on the proximal situation of gardens, it provides a firm limitation: gardens may have a nameplate capacity of no more than one megawatt.[5] The Company finds it unlikely the Legislature intended to render its standard meaningless by embracing 40 adjacent gardens. Indeed, the Company did not advocate for this scale of development when it agreed to work with parties to avoid inefficiencies from performing engineering reviews in isolation where there was more than one garden on neighboring properties.

We find instructive the language in Minnesota statute governing system sizes for the purpose of taxing solar energy production. There, the Legislature articulated a standard which favors combining systems. The law treats as one system generation which:

> (2) exhibits characteristics of being a single development, including but not limited to ownership structure, an umbrella sales arrangement, shared interconnection, revenue-sharing arrangements, and common debt or equity financing.
>
> In the case of a dispute, the commissioner of commerce shall determine the total size of the system and shall draw all reasonable inferences in favor of combining the systems.
>
> (c) In making a determination under paragraph (b), the commissioner of commerce may determine that two solar energy generating systems

[5] Minn. Stat. 216B.1641.

> are under common ownership when the underlying ownership structure contains similar persons or entities, even if the ownership shares differ between the two systems. Solar energy generating systems are not under common ownership solely because the same person or entity provided equity financing for the systems.
>
> 272.0295 SOLAR ENERGY PRODUCTION TAX, Subd. 2(b)(2)

Under our current process, applicants must affirmatively request that the Company treat all of their garden sites as one for the purpose of reviewing their interconnection requests jointly. This suggests that the applicants, too, prefer to have their separate gardens treated as one. The Commission might read such development as circumventing the statute's 1 MW threshold.

By revisiting the program rules addressing appropriateness of garden sites, the Commission may enable the program to develop in alignment with our interpretation of the statute's intent.

*2. Revise Program Rules through Implementation Workgroup*

Second, when we consider potential solutions to these challenges, we are reminded of a similar instance when state and federal regulators were confronted with difficult questions about how to accommodate requests for interconnection during an intense growth period for distributed wind generators. During the MISO queue reform efforts, regulators took a comprehensive approach and resolved issues through a series of policy judgments which identified and resolved important economic issues, including cost causation and free ridership. Regulators did so by balancing competing interests, including time lag, cost allocation, and grid access.

We see strong parallels between the MISO wind queue issue and what we are seeing in our program's infancy. We believe the question about whether utility-scale solar development is appropriately included in "community solar" needs to be resolved in a similarly deliberate manner. We therefore believe it may be appropriate to work together with the Implementation Workgroup to try and solve these problems and bring the program activity in line with the legislative intent.

We also believe there are opportunities for course corrections through examining the Applicable Retail Rate and REC incentive structure. We will further address solutions in our March 2 Reply Comments.

## CONCLUSION

We appreciate the opportunity to highlight concerns about the types of development we are seeing in the program to date and to offer some ideas for Commission consideration. We look forward to further engagement with parties as we focus on resolving important policy issues for community solar.

Dated: February 10, 2015

Northern States Power Company

# Potential Fuel Clause Impact of the Initial Community Solar*Rewards (Garden) Applications

*Full-Year Estimate based on 2014 related sales and rates*

| | Minnesota Fuel Clause Rider Impact | |
|---|---|---|
| **Potential Incremental Fuel Clause Expense** | | |
| Initial garden applications (MWs) | 431 | (a) |
| Hours in a year | 8,760 | (b) |
| Annual MWHs generated @ 100% Capacity Factor ( a * b ) | 3,775,560 | (c) |
| Estimated garden capacity factor (AC) | 19% | (d) |
| Annual MWH generated - Initial garden applications ( c * d ) | 717,356 | |
| *As % of Total MN Electric Retail MWH Sales* | *2.3%* | |
| | | |
| Estimated average bill credit per MWH [1] | $120.00 | (f) |
| Avoided energy cost per MWH [2] | $45.82 | (g) |
| Incremental cost per MWH ( f - g ) | $74.18 | (h) |
| MWH generated from initial garden applications | 717,356 | (i) |
| Incremental fuel clause expense ( h * i ) | $53,215,407 | |
| | | |
| Total incremental fuel clause expense - initial garden applications | $53,215,407 | (j) |
| 2014 MN electric retail MWH sales [3] | 30,769,436 | (k) |
| Estimated incremental fuel clause expense per MWH sold ( j / k ) | $1.73 | (l) |
| Convert to Kwh | 1,000 | (m) |
| Estimated incremental garden expense in cents per Kwh sold ( l / m ) | 0.173 | |

| **Allocation to Customer Class** | **Residential** | **C & I Non-Demand** | **C & I Demand** | |
|---|---|---|---|---|
| Estimated incremental garden expense per Kwh sold (cents) | 0.173 | 0.173 | 0.173 | (n) |
| FAF Ratio by customer class (Fuel Clause Rider) | 1.0132 | 1.0472 | 1.0091 | (o) |
| Estimated incremental garden expense per Kwh to class ( n * o ) | 0.175 | 0.181 | 0.175 | (p) |
| | | | | |
| Base Cost of Energy (Fuel Clause Rider) | 2.817 | 2.911 | 2.805 | (q) |
| *Incremental garden expense per Kwh as a % of the base fuel clause rider ( p / q )* | ***6.2%*** | ***6.2%*** | ***6.2%*** | |
| | | | | |
| 2014 Applicable Retail Rate (ARR) | 12.033 | 11.783 | 9.456 | ( r ) |
| *Incremental garden expense per Kwh as a % of the Applicable Retail Rate ( p / r )* | ***1.5%*** | ***1.5%*** | ***1.8%*** | |

[1] Based on a rate mix of 60% dmd billed +2¢ enhancement; 5% share for other Community Solar*Rewards bill credit rates

[2] Based on seaonally blended A52 On-peak rate proposed to be effective on March 1, 2015

[3] Actual Sales Data and Property Tax Expense Update and Related Revenue Calculations as filed in 13-868 on January 16, 2015

## CERTIFICATE OF SERVICE

I, Tiffany Hughes, hereby certify that I have this day served copies of the foregoing document on the attached list of persons.

xx by depositing a true and correct copy thereof, properly enveloped with postage paid in the United States mail at Minneapolis, Minnesota

xx electronic filing

**Docket No. E002/M-13-867**

Dated this 10th day of February 2015

/s/

_____

Tiffany Hughes
Records Analyst

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| Michael | Allen | michael.allen@allenergysolar.com | All Energy Solar | 721 W 26th st Suite 211<br>Minneapolis,<br>Minnesota<br>55405 | Electronic Service | No | SPL_SL_13-867_Community Solar Garden - Xcel |
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| Kenneth | Bradley | kbradley1965@gmail.com | | 2837 Emerson Ave S Apt CW112<br>Minneapolis,<br>MN<br>55408 | Electronic Service | No | SPL_SL_13-867_Community Solar Garden - Xcel |
| Michael J. | Bull | mbull@mncee.org | Center for Energy and Environment | 212 Third Ave N Ste 560<br>Minneapolis,<br>MN<br>55401 | Electronic Service | No | SPL_SL_13-867_Community Solar Garden - Xcel |
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| James | Denniston | james.r.denniston@xcelenergy.com | Xcel Energy Services, Inc. | 414 Nicollet Mall, Fifth Floor<br>Minneapolis,<br>MN<br>55401 | Electronic Service | No | SPL_SL_13-867_Community Solar Garden - Xcel |
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